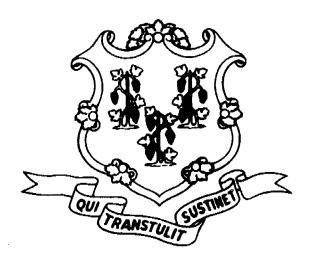
State of Connecticut



THE NUCLEAR ENERGY ADVISORY COUNCIL REPORT

1999

Established Pursuant to Public Act 96-245

Terry Concannon, co-chairperson Evan W. Woollacott, co-chairperson

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Requests for any report or backup documents issued by NEAC, NRC, NU, Little Harbor Associates Parsons Power, may be made by contacting the Co-Chairs at Room 4100, Legislative Office Building, Hartford, CT 06106.

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CHARGE TO THE COUNCIL

Section 17 of Public Act 96-245 created the Nuclear Energy Advisory Council (NEAC) and requires it to:

- 1. Hold regular public meetings to discuss issues relating to the safety and operations of nuclear power plants, and to advise the governor, legislature, and municipalities within a five-mile radius of the plants on these issues;
- 2. Work with federal, state and local agencies and the companies operating such plants to ensure public health and safety;
- 3. Discuss proposed changes in, or problems arising from, the operation of the plants;
- 4. Communicate, through reports and presentations, with the plants' operators about safety or operational concerns at the plants;
- 5. Review the current status of the plants with the Nuclear Regulatory Commission (NRC).

COUNCIL MEMBERS

The council has 14 members appointed by the leadership in the General Assembly and the executive bodies in the towns in which the state's nuclear power plants are located (Appendix 1).

NEW: NEAC link on the <millstonestation.com> Internet web site.

EXECUTIVE SUMMARY

This is the fourth annual report presented by the Nuclear Energy Advisory Council. This fourth year was one of transition. During the first three years we were focused on monitoring the recovery of Millstone 2 and 3, including the Independent Corrective Action Verification Program (ICAVP) and the Independent Third Party Oversight Program (ITPOP), under order from the Nuclear Regulatory Commission. We also added the unexpected decommissioning of Connecticut Yankee in Haddam to our oversight duties. On April 14, 1999, NEAC members, Markowicz and Sheehan, attended the 'Briefing on Remaining Issues Related to Proposed Restart of Millstone 2' where Mr. Sheehan made a presentation on behalf of NEAC. The Commission voted to approve the restart and on May 14th Millstone 2 entered power up mode. Now that Millstone 2 and 3 had restarted, we took a different posture.

Since our inception in August 1996 we had met monthly, and sometimes more frequently. Our agenda was filled with a multi-faceted commitment to ensure that issues relating to the safety and operations of the nuclear power plants were completely addressed. Now we needed to ascertain that the two nuclear power plants are operated safely, that employee concerns continue to be addressed effectively and that the decommissioning of Connecticut Yankee and Millstone 1 is executed in a manner that is safe for workers and public alike. We voted at our May meeting to schedule meetings on a bi-monthly basis. There were seven meetings of the Council in 1999. Hurricane Floyd interrupted the sequence in September.

Careful attention was paid to the operation of Millstone 2 and 3. Bill Sheehan continued his workhorse approach as the 'badged' member of NEAC, which entitled him to unescorted access into the power plants where he monitored the control room activities a total of 23 times during the year. His reports were well received and his recommendations heeded.

We monitored the status of the Safety Conscious Work Environment (SCWE) program. This, we believe, is key to the ongoing operational success of the units and the continued positive morale among the employees. As we participate in the planning of the nuclear plant auction during the coming year, we must insure that the investment in the SCWE program not be lost. NEAC will follow this important area closely.

Throughout the year, we spent time evaluating the decommissioning programs for Connecticut Yankee and Millstone 1. We had expressed our concern regarding the fact that there is no NRC resident inspector on-site after some 12 months into the decommissioning process. We learned that the NRC provides vigilant oversight whenever work with radiological significance occurs, as well as executing regular inspections.

Citizens' advisory panels have been formed in other locations where nuclear power plants are undergoing decommissioning. For example, Connecticut Yankee has CDAC, the Citizens' Decommissioning Advisory Council with representatives from all towns in its Emergency Planning Zone (EPZ). NEAC was approached by the Board of Selectmen in Waterford, area legislators and NU and asked to consider taking on the oversight duties usually assumed by citizens' panels. The creation of yet another outside entity/bureaucratic level was undesirable. After much consideration and discussion, NEAC agreed by council vote on July 15, 1999, to assign the Millstone 1 decommissioning monitoring function to its subcommittee under the co-chairmanship of Pearl Rathbun and Representative Kevin Ryan. Prospective members were sought through the media with an encouraging response from a diverse group of residents living within the EPZ. A charter was established, 13 members appointed, meetings commenced in November and the name, Millstone 1 Decommissioning Advisory Committee (MIDAC) approved. Unlike other citizens' panels, MIDAC is not fiscally supported by the utility and retains its objective stance and independence in like manner to NEAC.

NEAC also monitored the work of the Repowering Advisory Committee (REPAC) in Haddam, which is seeking to facilitate the development of a gas-fired plant at Connecticut Yankee in order to augment its tax base, decimated by the closure of the nuclear power plant. It is a complicated matter from the aspects of safety and licensing, and has not produced a firm proposal to date. NEAC will follow any progress with this project.

As part of our agenda for the coming year, we shall continue to monitor operations and decommissioning activities, as well as to focus on the Safety Conscious Work Environment program. The auction of the nuclear plants will be of especial concern and interest for our council.

REPORT ON ISSUES

INTRODUCTION

During 1999 NEAC continued the monitoring of the restart and post-restart activities at the Millstone nuclear power plants and the decommissioning of Connecticut Yankee and Millstone Unit 1. In so doing, the focus was directed by the recommendations made in its 1998 (January 7, 1999) report, which addressed the issues critical to the well being, health and safety of the public.

In the 1998 Session, House Bill 5607 addressed our recommendation to establish the permanent position of a Nuclear Advisor to be appointed by the Secretary of the Office of Policy and Management. When

the proposed legislation failed to make it through the process because of budgetary implications, NEAC members met with the Governor's staff and they informed us that they were pursuing the appointment of the nuclear advisor. In 1999, Kevin McCarthy, former Director of the DEP's Department of Radiation, became the appointee.

This report covers the progress NEAC made during 1999 and updates specific recommendations for consideration by the state legislature and other entities.

NU RESTART PROGRAM

NEAC monitored the following restart activities at Millstone 2, and post-restart activities at Millstone 2 and 3:

- 1. Through briefings by Northeast Utilities (NU), the Nuclear Regulatory Commission (NRC) the Independent Corrective Action Verification Program (ICAVP) contractors for Millstone 2 (Parsons Power), and the Independent Third Party Oversight Program (ITPOP) contractor (Little Harbor Consultants) at most NEAC meetings;
- 2. By observing all public meetings including all Restart Assessment Panel (RAP) and Millstone Assessment Panel (post-restart successor to the RAP) meetings, between NU, the NRC, Parsons Power and Little Harbor Consultants;
- By observing the various NRC inspections of NU, including the 40500 ("Effectiveness of Licensee Controls in Identifying, Resolving and Preventing problems"), 40001 ("Resolution of employee Concerns"), Operation Safety Team Inspection (OSTI) and the ICAVP In-Scope and Out-of-Scope Inspections;
- 4. By monitoring phone calls and working meetings between NU, the NRC and Parsons Power, the ICAVP contractor hired to review the adequacy of the steps taken by NU to correct the deficiencies in the licensing and design bases at Millstone, as ordered by the NRC;
- 5. By observing public meetings in which the ITPOP contractor, Little Harbor Consultants (LHC) evaluated NU's progress in implementing the *Employee Concerns Program* (ECP) and the *Safety Conscious Work Environment* (SCWE);
- By observing public meetings with NRC commissioners in Waterford, CT, and at NRC headquarters in Rockville, MD;
- 7. By having a member of NEAC monitor Control Room operations at Millstone 2 and 3; and
- 8. By observing the NRC Atomic Safety and Licensing Board Pre-hearing Conference regarding reracking Millstone 3 Spent Fuel Storage.

In addition, NEAC monitored the status of the Restart Program and Post-Restart activities by reviewing NRC staff memos, Inspection Reports, Notices of Violation, Significant Items List updates as well as NU Restart Readiness Reports, Enhanced Performance System Reports (successor to the Restart Readiness Reports), Millstone Station Performance Reports, Key Performance Indicators and commitments to the NRC. NEAC was also involved in the review and significance resolution of the final group of the 824 Discrepancy Reports (DRs) developed over 2 years by the engineering firm, Parsons Power.

Corrective Action Verification Program

NEAC completed observing and monitoring the completion of the Millstone Unit 2 ICAVP. In part, this attention was focused on insuring that an "arms length relationship" was maintained between Parsons Power and NU. NEAC members also received copies of all Discrepancy Reports for Millstone 2 that were prepared by the contractors, NU responses and, when necessary, NRC resolutions. Each DR referred to a finding, or group of findings, detected by the engineering firm during its review of the systems selected for corrective action verification. The DRs had four significance levels, as originally recommended by NEAC in 1997 and discussed in the 1998 report. In the case of Millstone 2, which is an older plant than Unit 3, more Discrepancy Reports were issued with the higher, more significant findings. This necessitated intensive effort on the part of NU to resolve the debated issues so that the NRC could approve restart. On April 28, 1999, the NRC adjudicated that NU had satisfied all the conditions required by the Confirmatory Order that established the ICAVP. In the case of Millstone 2 and 3, there existed a backlog of discrepancies with the lowest significance level (4), which required corrective action following restart. NEAC has monitored the backlog reduction.

As of December 31, 1999, Millstone 2 had reduced its backlog from the 638 assignments required by the 521 level 4 DRs to 555 in seven months, and Millstone 3 had reduced its backlog from 838 to 28 since June of 1998.

Safety Conscious Work Environment

NEAC continued to monitor NU activities to develop and implement the Employee Concerns Program (ECP) and Safety Conscious Work Environment (SCWE). This included observing the presentations and reports of Little Harbor Consultants (LHC), the ITPOP contractor. In public testimony before the NRC commissioners on January 19, 1999, Vice-chair John Markowicz, spoke on behalf of NEAC and recommended that the Confirmatory Order not be lifted due to the, as yet, fragile nature of the NU/ECP/SCWE initiative. NEAC recommended that the Confirmatory Order merely be relaxed and that Little Harbor Consultants' role be converted to an 'On Call' status. (Appendix 3a)

On March 11, 1999, the NRC adjudicated that it was satisfied with the sustained performance demonstrated by NU in executing the ECP and SCWE at Millstone Station. As it lifted the Confirmatory Order that established the ITPOP on October 24, 1996, the NRC noted NU's commitment to have Little Harbor Consultants (LHC) conduct periodic (quarterly) assessments of the Millstone SCWE. The results of the first assessment were publicly reported at the July 15, 1999, NEAC meeting in Waterford. At that time, John Beck of LHC reported that, in its judgment, the overall state of the SCWE was essentially where it was when they left their assignment earlier in the year. 'Some areas (had) improved while others (had) slipped. Whether this state of fragility is improved is entirely in the hands of management.' Following their assessment in the fall, Mr. Beck reported that they had observed improvement in most areas since their last visit, that Millstone 'was meeting and exceeding all regulatory requirements and expectations as far as a safety conscious work environment (was) concerned.' In addition, they noted that the 'ECP (was) continuing to improve and is one of the best in the country.' However, he qualified this by adding that management should pay closer attention to some of the employee concerns' cases, and that it should be more aggressive in dealing first-hand with these concerns rather than relying on the ECP to do so. The next on-site assessment is scheduled for January 2000.

Nuclear Regulatory Commissioners' meetings

January 19, 1999: Vice-Chairman John Markowicz testified at the NRC Millstone Meeting in Rockville, MD. (Appendix 3a)

April 14, 1999: Vice-Chairman Markowicz and J.W. (Bill) Sheehan observed the NRC Millstone Meeting in Rockville, MD, at which time Mr. Sheehan testified before the Commission. (Appendix 3b)

Millstone Monitor

A member of NEAC, John W. (Bill) Sheehan maintained his "badged" status throughout 1999, and monitored the control room watch-standers in Millstone 2 and Millstone 3 while paying special attention to the aspects, which relate to Public Health and Safety.

a) Twenty-three monitors were conducted. Fifteen monitors took place in the Millstone 2 control room and eight monitors were conducted at Millstone 3. The emphasis was on Millstone 2 because of the restart preparations in the first quarter and the recovery from a dropped rod in September. Millstone 3 was emphasized during the refueling outage in May/June. (Appendix 4)

- b) Each visit took an hour or more. Besides observing the conduct of watch-standers, the monitor reviewed pertinent logs, turnover check-off lists, status sheets and procedures in use during the observation period.
- c) The year's observations may be summarized as follows:
 - 1) Watch-stander performance trend over the year was up;
 - 2) Shift Managers and Unit Supervisors effectively set positive standards for the Watch sections.
 - 3) Watch-standers were not afraid to draft Condition Reports (CRs), if necessary;
 - 4) The management emphasis of "Do it Right" permeated the watch sections. For example, the watch-standers were not afraid to shutdown the reactor if that was necessary due to a problem or changing plant conditions;
 - 5) Millstone 2 watch-standers appear to have learned from the Millstone 3 watch-stander errors. Millstone 2 watch sections are more formal and alert for problems than the Millstone 3 watch sections. This is the very subjective observation of the monitor who finds that the difference is quite subtle. It appears that the Millstone 2 watch-standers expect to have problems and are waiting for them to occur, while at Millstone 3 problems are the exception and, therefore, not expected. This could be related to the age difference between the two plants since older equipment is more prone to failure; and
 - 6) Watch-standers are health and safety conscious and continue to have the open support of upper management.
- d. Although there is still room for improvement, the operators continued to show real professional growth during the past year.

STATUS OF MILLSTONE 3

Refueling outage #6 was carried out between 5/1/99 and 6/29/99. Failure to plan for the plant outage in a timely and adequate manner caused an inspector in Nuclear Oversight to issue a 'Stop Work' order in the middle of May. Errors were found in the planning and there were failures to follow procedures, adhere to schedules, file required reports etc. The order was lifted within a week after management took steps to ensure that safety would not be threatened during the balance of the refueling period. The outage lasted an additional 2 weeks as a result.

Millstone submitted an amendment application to the NRC in March 1999, which would allow Millstone Unit 3 to re-rack its spent fuel pool in order to maintain full core reserve capability approaching the end of its operating license. Re-racking, using higher density spent fuel racks with closer assembly-to-assembly spacing, would allow the increase in the number of assemblies stored from 756 to 1860.

Millstone 3 will no longer be able to fully off-load its core after the end of the seventh (7th) cycle, which is the current cycle. The refueling outage is scheduled for early 2001. The NRC reviewed current practices, various possible outcomes, accident considerations and alternatives, and concluded that the proposal would not_have a 'significant effect on the quality of the human environment.' The 'Notice of Consideration of Issuance' of this amendment was published on August 27th. While certain members of the public expressed concern, two groups reacted strongly, the Connecticut Coalition Against Millstone and the Long Island Coalition Against Millstone. The Atomic Safety and Licensing Board, with 3 administrative judges presiding, held a Pre-hearing Conference in New London on December 13th to determine whether a full hearing should be held. The two groups were granted standing. Arguments concerning the potential for an increase in the chance of a spent fuel pool accident were presented. Members of NEAC were present. The judges will rule early in 2000 whether the full hearing will be granted or whether the re-racking license amendment will proceed as an uncontested regulatory matter.

RESTART OF MILLSTONE 2

Parsons Power completed its review of Millstone 2 in January 1999. 75 valid LEVEL 3 DRs were confirmed and 521 valid LEVEL 4 DRs. The corrective action was still pending on a number with the lowest significance level and the backlog of corrective actions was appropriately labeled, as was done at Millstone 3, so that the progress in addressing these could be readily monitored. Thus, accountability is maintained.

Restart was delayed when a leak developed in a valve in the plant's Reactor Coolant System (RCS) during the initial power-up. It was necessary to cool down in order to repair the valve. Safety was considered to be a priority rather than the adherence to schedule. On April 28, the NRC approved Restart. The licensee had taken 'appropriate corrective actions to support restart of Millstone 2,' and had satisfied the ICAVP Order of August 14, 1996, which directed NU to contract with a third party to conduct an Independent Corrective Action Verification Program (ICAVP)

Power ascension commenced on May 14, and 100% power was attained on May 20. After 37 months Millstone 2 was now back on line. On May 21, it had been at >75% power for 100 hours – the requirement imposed by DPUC in May 1998 – and the plant returned to the rate base.

The NRC had created the Special Projects Office (SPO) within the Office of Nuclear Reactor Regulation (NRR) to provide a specific management focus on the licensing and inspection activities required to support an NRC decision on the restart of the Millstone units. The SPO was disbanded in July 1998, and its responsibilities were assigned to various groups within NRR and Region 1.

STATUS OF MILLSTONE 1

As of July 21, 1998, Millstone 1 was no longer authorized to operate the facility or to place fuel into the reactor vessel. Permanent Cessation certifications, which constitute 'License Basis Change,' were filed with the NRC. Decommissioning, the removal of a facility or site safely from service and the reduction of residual radioactivity to a level that permits release of the property and termination of the license (10 CFR.2) had begun. While the risk to public health and safety from a permanently shutdown and permanently defueled power plant is dramatically reduced, it is incumbent on NEAC to ensure that all safety aspects are considered while the utility also focuses on the cost-effectiveness of its management of the process.

YEAR 2000 (Y2K)

Responding to the concerns of the public, NEAC dedicated its February meeting to the subject of Y2K and how the nuclear power industry was addressing this computer/microchip-based problem. A panel of seven included representatives from the Nuclear Energy Institute, NRC, DPUC, the Y2K Program Manager for NU, Philip DeCaprio, the Y2K Project Manager for Millstone, John Ferguson and Ken Heider, Director of Decommissioning at CY. They reported participation in the industry-wide program. A detailed assessment of software applications and embedded devices was made and remediation was being carried out where required. No Y2K issues were identified with regard to the safe operation of the plants in either the software applications or the embedded devices. At CY, the recently installed spent fuel cooling system is Y2K compliant. Contingency planning had begun to include potential Y2K induced events. The NRC required confirmation of the implementation of a Y2K readiness program from licensees operating all nuclear power plants in the country. Certification that the facilities were Y2K ready was due by July 1, 1999.

On June 29, NU reported to the NRC the 'Year 2000 Readiness' of computer systems at Millstone 2 and 3, plus the systems at Millstone 1 which are shared with 2 and 3. Millstone was 'Y2K Ready." On September 9 there was an industry-wide drill to simulate the implementation of administrative, operating, communications and contingency plans for the 12/31/99 to 1/1/2000 rollover. The date: 9/9/99 was chosen as a possible precursor to any Y2K problems. The drill was satisfactory.

November 8, 1999, the NRC reported that all 103 operating nuclear power plants in the country were "Y2K-ready."

EMERGENCY PREPAREDNESS

In 1999, the NEAC Emergency Preparedness subcommittee awaited some action on the part of the state Office of Emergency Management (OEM) in addressing the recommendations outlined in the NEAC 1998 report. NEAC requested that the following be implemented in order to improve nuclear emergency preparedness:

- Establishment of public education programs that focus on nuclear emergency planning,
- Updating present evacuation routes to reflect increased traffic volume,
- Increasing the number of emergency reception centers to accommodate more than 20% of the EPZ population.

To date, OEM has maintained its status quo. Both OEM and the Federal Emergency Management Agency (FEMA) adhere to objectives and statistics, which are too conservative in the opinion of the committee and would benefit from more frequent updating. Progress in developing and implementing the recommendations is imperative as we enter a period of electric de-regulation and all aspects of public safety must be considered, protected and promoted.

The biennial off-site Emergency Plan Exercise was scheduled to take place in September 1999 at Millstone Station. A meeting took place in White Plains, NY, in December 1998 between NRC Region 1, and FEMA Regions I,II and III. At this meeting, representatives from Connecticut and New York verbally concurred with a proposed rescheduling of the NRC/FEMA exercise at Millstone from September to March 2000. This move was an accommodation of federal resources, but it also required Millstone to apply to the NRC for an exemption from the September scheduled exercise, which was granted on October 14th. The full-participation exercise will now take place on March 15, 2000, and all future NRC/FEMA-evaluated exercises will occur biennially from the year 2000.

Potassium Iodide (KI)

In 1999, the NEAC Emergency Preparedness subcommittee also continued to pursue the implementation of a state program that would stockpile and distribute Potassium Iodide (KI) as a supplement to rapid evacuation. A 1998 NRC proposed rulemaking change, subsequently revised in 1999; Consideration of Potassium Iodide in Emergency Plans, proposes that consideration be required of the prophylactic use of potassium iodide as a supplement to sheltering and evacuation in the event of a major release of radioactivity from a nuclear power plant. The 1998 NEAC Report included recommendations to request appropriate quantities of KI pills from the federal government (at no cost) and to stockpile the KI for

distribution to residents within the Millstone Emergency Planning Zone. Unfortunately, the NRC has since withdrawn its offer to fund the purchase of state stockpiles of KI due to budgetary constraints.

Responding to NEAC's 1998 recommendations, the state of Connecticut formed a working group made up of the Office of Policy and Management, Office of Emergency Management, Departments of Public Health, Environmental Protection, Corrections and the First Selectman of Waterford to investigate the distribution of Potassium (KI) to the public in the event of a serious nuclear accident at Millstone. This working group is investigating the impact of all of the NEAC recommendations, taking into consideration proposed changes by several federal government agencies with regard to the distribution and use of KI. As the federal agencies develop and finalize their position, the working group will investigate its application to the situation in Connecticut. To date, no policy changes have been forthcoming.

Concurrently, the NRC staff continues to work with the national KI Core Working Group to develop a revised draft for NUREG-1633, Assessment of the Use of Potassium Iodide as a Public Protective Action During a Severe Reactor Accident. This will have an accompanying draft of a user-friendly brochure to support emergency planning decisions on the role and use of KI in site-specific emergency plans (NRC 11/23/98 announcement). Several meetings of the national KI Core Group have taken place in various areas of the country during 1999. NEAC member, Dr. Ed Wilds represents the DEP on the Group. Waterford has offered to host a meeting for the national working group after the revised draft for NUREG-1633 has been published.

To further aid the NEAC efforts to include KI in Connecticut's nuclear emergency planning, the Citizens' Regulatory Commission (CRC), a local group of volunteers from the southeastern part of the state concerned about nuclear safety, formulated a petition in support of the federal KI proposal. Over 500 residents signed a petition, which was forwarded to the NRC on July 23, 1999. (Appendix 5) Copies were also sent to the state's Department of Public Health and to area legislators.

DECOMMISSIONING

MILLSTONE 1

On July 17, 1998, it was announced that Millstone 1 would undergo decommissioning. It was shutdown for refueling in November 1995, after 25 years of operation, and has remained shut ever since. Then, it was placed on the NRC Watch List in 1996 as were Millstone 2 and 3. This fact, plus the economic analysis that indicated restart of the nuclear power plant was no longer a feasible proposition, led to the decision to 'retire' the plant. On July 21, 1998, the NRC was notified that operations had ceased and the fuel had been permanently removed from the reactor vessel.

Of the 2 available decommissioning options, a modified SAFSTOR has been selected. This involves some decontamination and dismantlement early in the process. Most radioactive components and equipment will be removed and shipped to a licensed disposal facility. After these initial activities are complete, the unit will then be placed in safe storage. The spent nuclear fuel will continue to be stored in the fuel pool. The remainder of the decommissioning work will be completed in conjunction with the decommissioning of Millstone 2 and 3, because of the specific conditions unique to a multi-unit site. Of concern to NEAC is the fact that a number of plant systems are shared with Units 2 and 3 such as fire protection, air circulation and medical response. A total of 23 Non-Safety systems are cross-tied between Unit 1 and the other two units. We want to be certain that their separation is executed safely and effectively. A citizen's advisory panel, such as that formed for the Connecticut Yankee decommissioning, has been created to address the issues of public concern associated with the decommissioning of Millstone 1.

On May 27, 1999, Entergy Nuclear was named to manage the decommissioning effort. The company is also involved with the decommissioning of Maine Yankee. In June 1999, the Post-Shutdown Decommissioning Activities Report (PSDAR) was submitted to the NRC and the required public meeting was held in Waterford on August 25. Members of the public expressed their preference for a 'Hearing' rather than a meeting so that their input could be considered, but the current regulations do not accommodate this. Following this meeting, decommissioning activities and access to 20% of the Decommissioning Fund were allowed the utility. The preliminary cost estimate for the total decommissioning of Unit 1 is approximately \$691 million, which includes \$532 million for the basic decommissioning and \$159 million for the spent fuel management. Approximately 40% has accumulated in the Decommissioning Fund which is a dedicated trust fund that receives monies from the rate payers as part of their monthly billing. Additional funds will accrue during the decommissioning period. NEAC and the subcommittee, MIDAC, are primarily concerned that the decommissioning will proceed safely both for the local communities and for the employees.

MILLSTONE 1 DECOMMISSIONING ADVISORY COMMITTEE (MIDAC)

The decision was made by Northeast Utilities in July 1998 to retire Millstone Unit 1 nuclear power plant. On July 15, 1999, the members of NEAC voted to establish a decommissioning subcommittee for the purpose of monitoring Millstone 1 decommissioning activities. NEAC members, Pearl Rathbun and Representative Kevin Ryan were approved to co-chair the committee. During the months of August and September, public participation was sought through the media (Appendix 6a), and

by word of mouth. On October 21, NEAC voted to approve membership on the subcommittee of 13 persons (Appendix 6b), representing a wide variety of community interests, including public health, education, environment, technology, commercial and the clergy.

At the first meeting held on November 18, 1999, at Waterford Town Hall, the Statement of Purpose was approved (Appendix 6c), and the name of the committee selected: MIDAC (Millstone I Decommissioning Advisory Committee). Entergy, which is the company contracted to manage the decommissioning, made a presentation outlining decommissioning procedures and regulations.

MIDAC will meet on the first Thursday of each month at Waterford Town Hall which is a central location for the public as well as for the members, all of whom reside in the Emergency Preparedness Zone (EPZ). Meeting minutes are in Appendix 6d.

The committee will also be linked to the Internet Decommissioning site at <millstonestation.com>

CONNECTICUT YANKEE

1999 was a year of constant, rapid, significant change at Connecticut Yankee as the plant transitioned into the decommissioning mode. Dismantlement of the facility commenced in January. Asbestos removal/abatement was a significant undertaking and other issues addressed included; Y2K, the feasibility of dry cask storage, importance of archeological material on site, and re-zoning and permitting needs vis-à-vis construction of a gas-powered plant.

A letter was sent to the U.S. Senate Energy Committee Chairman, Frank Murkowski, requesting that any comprehensive nuclear waste legislation address the needs of permanently shut down nuclear power plants, including the high priority for the removal of spent fuel.

Bechtel Power of Frederick, MD, was selected as the Decommissioning Operations Contractor (DOC) in April and the active transition to Bechtel took place in May. In August, Bechtel management instituted a week's Stand Down when they determined that there was an adverse trend of unacceptable safety performance. Poor worker practices, failure to use personal protective equipment and 3 OSHA recordable injuries (2 back injuries and 1 burn) none of which caused a loss of time on the job, contributed to the negative trend. Bechtel brought everyone together to ask the workers for their feedback in order to find a solution. The corrective actions included a week of retraining for all personnel and a significant quantity of new safety gear. Since this action was taken, there have been no new OSHA recordable accidents after 470,000 man-hours of work, which is much better than the industry average. BEST (Behavior Employee Safety Team) was initiated to observe, report on and improve safety matters.

Plans to ship the four steam generators by barge to the Chem-Nuclear Services disposal facility in Barnwell County, South Carolina, ran afoul of the hot, dry summer, which made the Savannah River too shallow to allow safe passage of the barges. They are being stored on-site in the interim, having been removed from the containment building. Three buildings were demolished, the spare transformer was shipped by barge to a Midwest utility and the domes of the steam generators were prepared for land shipment by rail.

Maintaining good community relations has been a major focus. A decommissioning display has been set up in the information center, visitors are welcomed, questions answered, speakers provided for interested groups and events, daily information dispersed through the media including the Internet, the Citizens' Decommissioning Advisory Committee (CDAC) is supported and the employees continue to participate generously in civic-minded activities. The emergency sirens were no longer needed and were donated to towns that requested them when they were removed. In some cases they remained in situ at the behest of the host municipality.

CY remains the licensee, of course, and has constructed a new Control Room, staffed by CY personnel, which monitors the Spent Fuel Pool Building, now part of the Spent Fuel Island. NEAC toured the plant and viewed the modified facility prior to its meeting in October. Bechtel took over the old Control Room in November.

Extensive inspections by the NRC reported good overall performance. Its second quarter report, August 10, 1999, stated that 'The Licensee provided very good controls for radioactive materials and contamination, surveys and monitoring during decommissioning activities.' The NRC closed some outstanding items. An amendment (#195) was issued to CY's Operating License on October 19, including changes to the technical specifications in order to reflect CY's changed status. Following the 18-week inspection, which ended November 12, the NRC's general characterization was 'careful and thorough.' There were concerns relating to the influx of new workers, but the Stand Down in August as well as other corrective actions addressed these issues of radiation protection, procedural compliance and personal safety. A comprehensive audit of CY's radioactive waste program and corrective actions in response to Condition Reports was undertaken. Improvement in worker performance was observed by the end of this inspection period.

The 2.5-year effort to remove the concrete blocks containing extremely low levels of radiation, which had been removed from the site and used for landscaping and construction projects in the general area, was completed at a cost of some \$9 million. 134 sites were identified, of which 47 sites required removal of

the CY material. No radiation was found at the remaining locations. In November, groundwater tests revealed detectable tritium at 7 of the 40 sites regularly tested. Of these, 2 were below drinking water standards. No off-site location was found to be contaminated. A storage tank was suspected to be the source and declining trends are expected to continue, as the tank is no longer in use.

NRC Commissioner Merrifield visited CY on December 1, toured the site and met with various interested parties including Haddam's First Selectman and members of NEAC. They discussed decommissioning and the concerns that have been expressed by residents living in the CY vicinity.

REPOWERING ADVISORY COMMITTEE (REPAC)

A Repowering Advisory Committee (REPAC) was the brainchild of the former First Selectman of Haddam, and was established within the community with the support of Connecticut Yankee. Having determined that the highest and best use of the site would be the early operation of a combined-cycle gas turbine utility plant, the purpose of the committee will be to further this end use. Placing such a gas plant in proximity to a spent fuel facility would be a first in the country and presents a regulatory challenge.

NEAC monitored this activity. After some time, the company selected to undertake this project by the decommissioning contractor refused to submit a formal proposal because CY was not prepared to permanently indemnify the future builder and owner of the new power plant. Valuable time was lost because many new plant proposals have already been made to the Siting Council. If these are approved, there may not be a need for additional new generation in the state. Considering that the CY site is one of the best locations for a combined-cycle gas fired plant in Connecticut, there is a possibility that another developer could be found, and CY is actively pursuing this. The issue of safety at the site must be given full consideration since the highly radioactive spent fuel will be stored there until such time as a permanent repository becomes available. A further complication is the fact that the Department of Energy (DOE) approval, in addition to that of the NRC, would be required should the proposed High Level Nuclear Waste Act become law. Then DOE would take title to the spent fuel, which would duplicate and prolong the permitting process when time is of the essence.

SPENT NUCLEAR FUEL

The spent fuel rods resulting from the operating tenure of Connecticut Yankee and Millstone 1 continue to be stored on-site in a cooled pool of water known as the spent fuel pool. The U.S. Department of Energy (DOE) is charged with the building of a disposal repository for the highly radioactive rods, but it is at least 10 to 15 years from providing this facility. The issue of storage, and the

alternatives of the spent fuel pool versus dry cask storage, will play a critical role in the future use of the CY plant site in particular.

HIGH LEVEL NUCLEAR WASTE

By law, the federal Department of Energy (DOE) is responsible for the disposal of high level nuclear waste such as spent fuel, and each operating nuclear plant is assessed a one mil/kilowatt hour charge to cover the costs of disposal. During the year, NEAC continued to monitor action by Congress to pass the high level nuclear waste bill.

In 1999, the U.S. House and Senate proposed separate bills, approved in committee, to provide an integrated spent fuel management system for the country, H.R 45 and S.1287. It is expected that a vote will be planned for 2000. Both bills contain provision for DOE to take title to the spent fuel at commercial nuclear power plants. If a 'Take Title' provision is passed without some form of protection for the states, the spent fuel could remain in Connecticut indefinitely. The longer the removal of spent fuel is delayed the longer it will stay in the state. This is of both a safety and an economic concern for Connecticut.

As of January 31, 1998, the contractual requirement that DOE start to move spent fuel lapsed. This has given rise to considerable legal action. The U.S. Supreme Court has refused to review an Appeals Court decision that affirmed the DOE's definitive obligation to begin moving spent fuel by January 31, 1998. This decision permits the nuclear utilities to continue to pursue damage claims against DOE. Since October 1998, when the U.S. Court of Federal Claims made its ruling, DOE has been financially responsible for its failure to begin moving used fuel from reactor sites. Of interest, is the fact that one of the utilities to bring suit was Connecticut Yankee.

It is believed that in order to avoid spending billions of dollars in claims, Congress may be motivated to expedite its efforts for DOE to take title to the spent fuel or designate a temporary storage site in the Yucca Flats area in Nevada. The temporary site would be Area 25 of the Nevada Test Site, and it is scheduled to receive high level waste beginning in 2003. Meanwhile the permanent storage facility is under construction in Yucca Mountain and the tentative completion date is 2010. NEAC will continue to push for a central temporary spent fuel storage site, due to the immediacy of Connecticut's need. Our federal legislators should again be contacted to inform them of Connecticut's safety and economic concerns, and NEAC hopes that we will have their support this year.

NUCLEAR PLANT AUCTIONS

As required by the Deregulation Act, PA 98-28, An Act Concerning Electric Restructuring, both United Illuminating (UI) and Connecticut Light and Power (CL&P) are required to sell their nuclear facility interests by auction no later than the end of 2003. The Department of Public Utility Control (DPUC) is establishing the ground rules. Proposals have been submitted to DPUC and hearings start in January 2000. NEAC members, DeBold and Woollacott, have been delegated to closely monitor the auction process. NEAC is primarily concerned that the safety ramifications of this complex process not be minimized.

CANCER RISK STUDY

This report is still pending. The Connecticut Academy of Science and Engineering (CASE) has compiled the data regarding emissions from Connecticut Yankee, with the weather and the plume patterns. Remaining is the correlation of these with cancer incidence statistics.

RECOMMENDATIONS

Federal:

- There should be a positive recommendation that Congress pass, and the President sign, a High Level
 Waste siting bill that would ensure timely construction of a national High Level Radioactive Waste
 Repository (This is a political decision the technical ability has been available for at least 20 years).
 The state administration and legislature should also support an effective federal solution.
- 2. NEAC supports the work of the KI Core Group, and urges it to complete its work in an expeditious manner.
- 3. The Connecticut Congressional delegation should monitor the reorganization of the NRC to ensure that health and safety issues are not compromised by budgetary constraints.

State:

- 1. NEAC recommends that the Office of Emergency Management receive the fiscal support needed to address the shortfalls in Emergency Preparedness highlighted in the 1998 subcommittee report including:
- Establishment of public education programs that focus on nuclear emergency planning;
- ♦ Updating present evacuation routes to reflect increase traffic volume;

- Increasing the number of emergency reception centers to accommodate more than 20% of the EPZ population; and
- The distribution and stockpiling of Potassium Iodide (KI) as a supplement to rapid evacuation.
- 2. The legislature, governor and NEAC should continue to insist the NRC maintain vigilant oversight during the entire decommissioning effort at Connecticut Yankee and Millstone 1, and regular inspections should be carried out by the NRC for as long as the high level radioactive waste remains on site.
- 3. The state administration and Legislature should support an effective federal solution to the High Level Waste problem while urging our congressional representatives and the federal administration to resolve this situation.
- 4. A solution to the Low Level Waste storage problem should continue to be addressed.

NEAC

- NEAC should continue to monitor the stability of the Employee Concerns Program/Safety Conscious Work Environment.
- 2. NEAC should monitor the progress of the state's working group which is investigating the distribution of potassium iodide to the public per NEAC's recommendations;
- 3. NEAC should continue monitoring:
 - a) The ongoing power operations at Millstone 2 and 3, including the Corrective Action backlog reduction;
 - b) The decommissioning of Millstone 1 and Connecticut Yankee;
 - c) The refueling outage at Millstone 2.
- 4. NEAC should continue to advocate that spent fuel from plants undergoing decommissioning receives priority in disposal.
- 5. Communication of NEAC activities should be improved through:
 - a) Regular distribution of reports/press releases to daily/weekly newspapers and town newsletters;
 - b) Coordination of agendas with the citizens' councils/committees involved with the decommissioning of CY and Millstone 1; and
 - c) Development of consistent post-restart public communications in conjunction with local citizen groups and the utility.
- 6. NEAC needs the guarantee of continued clerical support in order to function.
- 7. NEAC should request informal meetings with U.S. senators Dodd and Lieberman, and Congressman Gejdenson, in order to provide a briefing on NEAC's work and goals so that a better working relationship is established.
- 8. In order to ensure that public health and safety are not compromised, NEAC should monitor:

- The nuclear plant auctions and progress towards deregulation in the electric industry;
- ♦ The personnel reductions/'Cascades' at Millstone Station;
- The License Amendment Request (LAR) to "re-rack" the Millstone 3 Spent Fuel Pool;
- Toxic discharges from Millstone and Connecticut Yankee.

COUNCIL ACTIVITIES IN 1999

Meetings

'Auction Process.'

NEAC held regular public meetings during the year, as required by PA 96-245, to provide a venue for the discussion of issues relating to the safety and operations of the state's nuclear power plants. NU, NRC, CY, the ICAVP contractor, Parson Power, and Little Harbor Consultants made presentations on current issues and developments. Each meeting included a period for public participation.

The council met: January 9 (Waterford), February 18 (Waterford), March 18 (Waterford), May 13 (Waterford), July 15 (Waterford), October 21 (Connecticut Yankee, Haddam Neck, included tour of the plant), December 9 (Waterford). The minutes of the meetings are in **Appendix 2**.

February 12, 1999: NRC Commissioners Greta Dicus and Jeffrey Merrifield met with NEAC members in the afternoon at Millstone. The concerns surrounding the likely restart of Millstone 2 were discussed.

October 7, 1999: NEAC members, Helm, Concannon and Woollacott, attended the day-long Millstone Leadership Meeting at the Ramada, Norwich: "Setting Course to 'Best of Best' Performance,' and the

November 13, 1999: NEAC members Rathbun and Concannon attended NRC Decommissioning workshop, the NRC Inspection of Decommissioning Power Reactors, A Public Outreach Initiative.

December 1, 1999: NRC Commissioner, Jeffrey Merrifield, and Ron Bellamy, Chief, Decommissioning, Region 1, met with Co-Chairs Concannon and Woollacott and NEAC Haddam representatives Buckley and DeBold at Connecticut Yankee. Decommissioning of the plant and the concerns of local residents were discussed.

Correspondence

NEAC undertook correspondence with various entities as outlined in Table 1. (Appendix 7)

Table 1: NEAC Correspondence

FROM	ТО	DATE	SUBJECT
Lee Olivier (NU)	John Markowicz	1/22	Thank you for participation in 1/19
Chief Nuclear Officer			NRC commission Briefing, Rockville,
			MD, representing NEAC
NEAC	Trevor Davis, Jr	2/18	Appreciation with regret following
		}	resignation after 2.5 years
(NRC) Commissioners	NEAC	3/16	Appreciation for 2/12 meeting with
Dicus, Merrifield			NEAC at Millstone/ Millstone 2 restart
Lee Olivier (NU)	NEAC	6/24	Decommissioning subcommittee
Chief Nuclear Officer			formation
NEAC	The Editor	8/30	Public invitation to join the
	(area newspapers)		Decommissioning subcommittee
NEAC	Decommissioning	11/5	Letter of appointment
	Subcommittee members		
NRC Commissioner	NEAC Co-Chairs	12/14	Appreciation for 12/1 meeting at CY
Jeffrey Merrifield			with NEAC members/Decommissioning
CT Office of Policy &	NEAC	12/31	Appointment of state Nuclear Advisor
Management			

APPENDIX 1

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APPENDICES

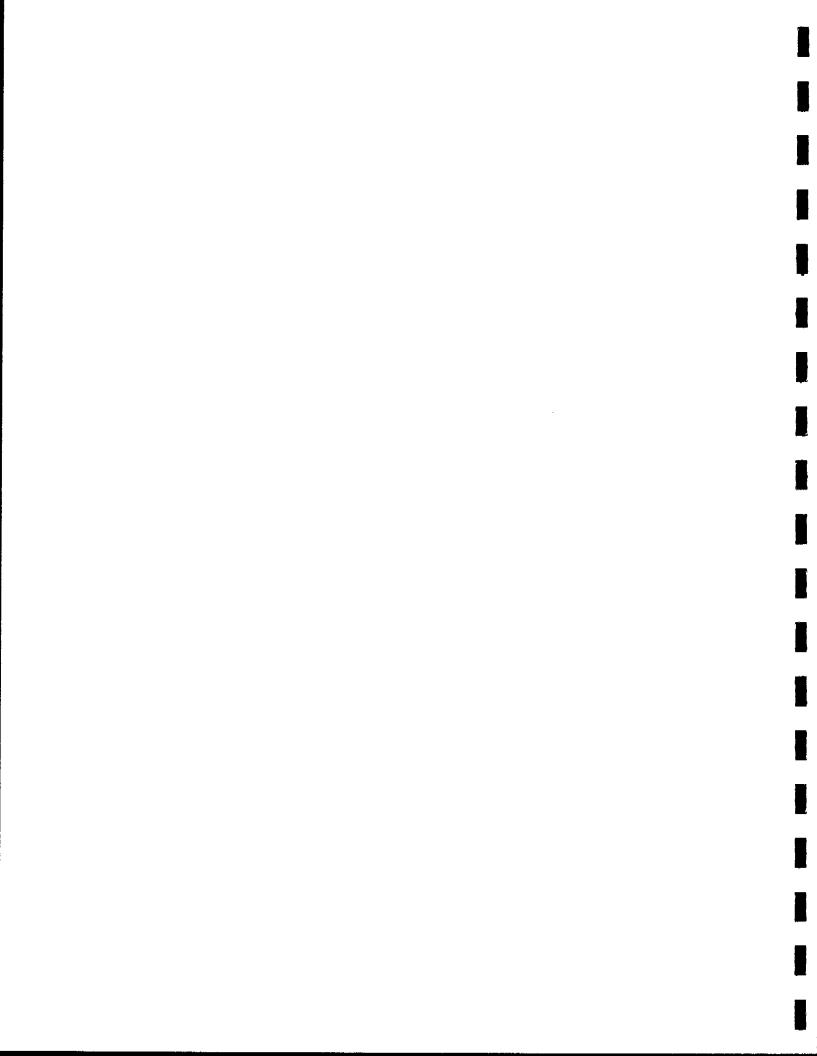
Nuclear Energy Advisory Membership

- Terry Concannon (Co-Chair), Marlborough: BSc Biochemistry, Dublin, Ireland. Tax Consultant, former state legislator.
- Evan Woollacott (Co-Chair), Simsbury: MBA, Wharton School. Consultant, formerly Vice-President Combustion Engineering.
- Lawrence (Bill) Brockett, Middle Haddam; BS Mech. Engineering, Yale. Consultant, formerly Director of Nuclear Systems, Honeywell.
- Mary Ann Buckley, Haddam Neck; MA Child Development & Family Relations, UConn. Director of Noyes Rhythm Foundation, Inc.
- John Helm, Sr.., Groton: MS Mech. Engineering, Columbia. Consultant, former experience includes nuclear submarine development.
- Marjorie W. DeBold, Haddam,: BA Psychology and Child Development, UC Berkeley.

 Retired teacher, former First Selectman of Haddam (replaced Ronald Jackson, Haddam)
- Mark Holloway, Waterford; BS Interdisciplinary Sciences, Charter Oak. Operations Manager. nuclear submarine development
- Robert J. Klancko, Woodbridge; BSE Chemical Engineering, UConn. Engineering consultant, member, State Emergency Response Commission.
- John Markowicz, Waterford; BS Engineering, Naval Academy. Economic Development director, former chief engineer nuclear powered submarine.
- Pearl Rathbun, Niantic: BA Economics, Three Rivers C-TC. Administrative Assistant, Office of Emergency Management & Fire Marshal's Bureau, East Lyme.
- Frank Rothen, Waterford: Vice President, Nuclear Services, Northeast Utilities.
- Rep. Kevin Ryan, Oakdale: O.D., Pennsylvania College of Optometry. Legislator, Adjunct Faculty University of New Haven.
- John (Bill) Sheehan, Waterford; MBA, Rensselaer Polytechnic. Dir. Management Information Systems, former captain nuclear powered submarine.
- Edward L. Wilds, Griswold: Ph.D Physics, UConn. Director, Division of Radiation, Department Environmental Protection.

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APPENDIX 2



Nuclear Energy Advisory Council (NEAC) Meeting Waterford Town Hall Waterford, Connecticut January 7, 1999

Ms. Terry Concannon, Co-Chair

Mr. Evan Woollacott, Co-Chair

Ms. Mary Ann Buckley

Mr. John Helm, Sr.

Mr. Mark Holloway

Mr. Robert J. Klancko

Ms. Pearl Rathbun

Mr. Frank Rothen

Mr. Bill Sheehan

Dr. Edward L. Wilds, Jr., representing DEP, Commissioner Arthur J. Rocque, Jr.

Co-Chair Concannon called the meeting to order at 5:03 p.m. on January 7, 1999, at the Waterford Town Hall.

Co-Chair Concannon asked NEAC members for their thoughts on sending Trevor Davis a letter of regret for his resignation from NEAC, noting that Trevor had actively participated in NEAC activities for the past 2 ½ years.

Mr. Bill Sheehan asked for a motion to send out a letter of sincere regret to Trevor Davis for his resignation from NEAC. The motion was seconded by Robert Klancko and unanimously approved by NEAC.

Co-Chair Concannon distributed an edited copy of the Executive Summary and NEAC Report for comments, corrections, additions, and deletions. The following corrections were suggested and accepted by NEAC:

From faxed copy:

Page 2: Change "form" to "from"

Page 2: Change "Disposition" to "Discrepancies"

Page 4: Under Status of Millstone 2, Change "Restart*." to "NU has scheduled restart for March 1999"

From edited copy (distributed by Terry at meeting):

Page 9: Under Spent Nuclear Fuel, remove from "Although" . ."

Page 12: Under NEAC, item 4 (moved to item 1), include Y2K issue.

NEAC members discussed identifying CAVP with ICAVP. Co-Chair Concannon also requested copies of two letters, one dated January 23, 1998 regarding monitoring and one dated June 23, 1998 from Bruce Kenyon. Mark Holloway will provide Co-Chair Concannon with copies of two letters

dated January 1998, to be referenced in the appendices.

NEAC members held an extensive discussion on the potassium iodide (KI) issue. Further corrections were made to the draft report.

NEAC members decided to have their next meeting on February 18, 1999 at 7:00 p.m. at the Waterford Town Hall.

NEAC members took a vote on the acceptance of the annual report with changes discussed. The report was accepted with proposed changes.

Co-Chair Concannon made the motion to adjourn the meeting. The motion was seconded and accepted and the meeting adjourned at approximately 7:00 p.m..

Nuclear Energy Advisory Council (NEAC) Meeting Waterford Town Hall Waterford, Connecticut February 18, 1999

Mr. Evan Woollacott, Co-Chair

Ms. Mary Ann Buckley

Mr. John Helm, Sr.

Mr. Mark Holloway

Mr. Robert J. Klancko

Ms. Pearl Rathbun

Mr. Frank Rothen

Mr. Bill Sheehan

Dr. Edward L. Wilds, Jr., representing DEP, Commissioner Arthur J. Rocque, Jr.

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NEAC members took a vote on the acceptance of the annual report with changes discussed. The report was accepted with proposed changes.

Co-Chair Concannon made the motion to adjourn the meeting. The motion was seconded and accepted and the meeting adjourned at approximately 7:00 p.m..

Nuclear Energy Advisory Council (NEAC) Meeting Waterford Town Hall Waterford, Connecticut March 18, 1999

Ms. Terry Concannon, Co-Chair

Mr. Evan Woollacott, Co-Chair

Ms. Mary Ann Buckley

Mr. Mark Holloway

Mr. Robert J. Klancko

Mr. John Markowicz

Dr. Kevin Ryan

Mr. Bill Sheehan

Co-Chair Concannon called the meeting to order at 7:05 p.m. on March 18, 1999, at the Waterford Town Hall. She stated that this would be a joint meeting with the Nuclear Energy Advisory Council (NEAC) and the Nuclear Regulatory Commission (NRC) in order to accommodate their coinciding, duplicative schedules.

Co-Chair Concannon asked for a motion on the acceptance of the of the February 18, 1999 NEAC minutes. The motion was made, seconded and accepted with three abstentions by Co-Chair Concannon, Robert J. Klancko, and Bill Sheehan due to their absence from that meeting.

Co-Chair Concannon introduced Mr. Hubert Miller, Regional Administrator of the NRC, who was co-chairing this meeting on behalf of the NRC.

Co-Chair Concannon introduced Mr. Mike Brothers, Vice-President, Millstone. Mr. Brothers gave a presentation on the Millstone 2 restart status (Enclosure A). Questions and comments from NEAC and the public followed Mr. Brothers's presentation.

Co-Chair Concannon turned the next segment of the meeting over to Mr. Miller. He briefly made his introductory remarks and later introduced Mr. Eugene Imbro, Chief, NRC Mechanical & Engineering Branch. Mr. Imbro discussed the Millstone 2 restart status (Enclosure B). Questions and comments from NEAC and the public followed Mr. Imbro's presentation.

Next, Mr. Paul Narbut, Team Leader, NRC Independent Corrective Action Verification Program (ICAVP), gave a review on the correction action program. He also discussed a public meeting held on March 18, 1999 regarding the corrective action team inspection (Enclosure C). Questions and comments from NEAC and the public followed Mr. Narbut's presentation.

Co-Chair Concannon introduced Mr. Daniel Curry, Project Director, Parsons Power. Mr. Curry gave a summary of the Millstone 2 ICAVP final report submitted by Parsons Power on January 12, 1999 (Enclosure D). Questions and comments from NEAC and the public followed Mr. Curry's presentation.

Co-Chair Concannon opened the floor to the public for questions and comments.

NEAC members decided to have their next meeting on May 13, 1999 at 7:00 p.m. at the Waterford Town Hall.

The consensus of the council members present was that the joint meeting format with the NRC worked well and could possibly be repeated in the future.

Mr. Bill Sheehan reported on his visits to the Millstone 2 control room on March 2, 1999 and March 16, 1999 (Enclosure E).

Co-Chair Concannon made the motion to adjourn the meeting. The motion was seconded and accepted and the meeting adjourned at 10:30p.m..

Nuclear Energy Advisory Council (NEAC) Meeting Waterford Town Hall Waterford, Connecticut May 13, 1999

Ms. Terry Concannon, Co-Chair

Mr. Evan Woollacott, Co-Chair

Mr. Lawrence Brockett

Ms. Mary Ann Buckley

Mr. John Helm, Sr.

Mr. Mark Holloway

Mr. Robert J. Klancko

Mr. John Markowicz

Ms. Pearl Rathbun

Mr. Frank Rothen

Dr. Kevin Ryan

Mr. Bill Sheehan

Dr. Edward L. Wilds, Jr., representing DEP, Commissioner Arthur J. Rocque, Jr.

Co-Chair Concannon called the meeting to order at 7:07 p.m. on May 13, 1999, at the Waterford Town Hall.

Co-Chair Concannon asked for a motion on the acceptance of the March 18, 1999 NEAC minutes. The motion was made, seconded and accepted.

Co-Chair Concannon introduced Mr. Ronald Gingerich, Director, Connecticut Hazardous Waste Management Service (CHWMS). Mr. Gingerich gave an overview of the nation's radioactive waste management system (Enclosure A).

NEAC members took a short break.

After the break, Mr. Kevin T.A. McCarthy, Chairman, Northeast Interstate Low Level Radioactive Waste (LLRW) Compact Commission briefly discussed the Compact Commission's role in low-level waste management. Mr. Gingerich continued his presentation following Mr. McCarthy's discussion.

Co-Chair Concannon introduced Waterford First Selectman, Tony Sheridan. Mr. Sheridan discussed the LLRW disposal site in Barnwell County, South Carolina. He stated that the entombment practices have improved since his last visit, four years ago, and suggested that Connecticut take advantage of the opportunity as long as Barnwell is receiving waste.

Co-Chair Concannon introduced Mr. Russell A. Mellor, Vice-President, Connecticut Yankee (CY). Mr. Mellor gave an update on the CY decommissioning (Enclosure B). He also introduced Mr. Dick Miller and Mr. Asa Kelly of Bechtel, who will be managing the decommissioning (Enclosure C).

NEAC members began their business meeting discussing different methods for providing a Millstone Unit 1 decommissioning advisory function. Mr. Frank Rothen noted that there were three potential decommissioning options: Safestor, Modified Safestor and Decon; and that the decision was about a month away. Mr. John Markowicz made a motion that NEAC adopt the Millstone 1 decommissioning function and empower subcommittees as necessary. The motion was seconded by Mr. Bill Sheehan and accepted.

NEAC members motioned to have bi-monthly meetings. The motion was approved. The next meeting will, therefore, be on July 15, 1999 at the Waterford Town Hall. The September meeting will tentatively be at the Connecticut Yankee Visitors Center and will be preceded by a plant tour.

Mr. Markowicz briefed the NEAC on the NRC public meeting that he and Mr. Sheehan attended in Rockville, Maryland on April 14, 1999. A copy of his trip reports, the meeting agenda, and written statement presented by Mr. Sheehan are attached (Enclosures D, E, F). He also noted that the commission had directed the staff to develop a mechanism for monitoring the work environment at Millstone and inquired whether any progress had been noted. Mr. Rick Kacich, Director of Business Services, Millstone, stated that a 40500 inspection will start Monday.

Mr. Bill Sheehan reported on his visits to the Millstone 2 control room on April 2, 1999, April 23, 1999 and May 9, 1999(Enclosures G, H, I).

The next meeting in July will consider Unit 3 backlog issues, the Unit 1 Post Shut Down Decommissioning Activities Report, the Ring Monitoring System, and a discussion on the KI issue.

Co-Chair Concannon made the motion to adjourn the meeting. The motion was seconded and accepted and the meeting adjourned at 11:08 p.m.

Nuclear Energy Advisory Council (NEAC) Meeting Waterford Town Hall Waterford, Connecticut July 15, 1999

Ms. Terry Concannon, Co-Chair

Mr. Evan Woollacott, Co-Chair

Mr. Lawrence Brockett

Ms. Mary Ann Buckley

Mr. John Helm, Sr.

Mr. Robert J. Klancko

Mr. John Markowicz

Ms. Pearl Rathbun

Mr. Bill Sheehan

Dr. Edward L. Wilds, Jr., representing DEP, Commissioner Arthur J. Rocque, Jr.

Co-Chair Concannon called the meeting to order at 7:08 p.m. on July 15, 1999, at the Waterford Town Hall.

Co-Chair Concannon asked for a motion on the acceptance of the May 13, 1999 NEAC minutes. The motion was made, seconded and accepted.

Co-Chair Concannon introduced Ms. Maria Nappi, Manager-Health Physics, Millstone. Ms. Nappi gave an update on the school ring monitoring system (Enclosure A).

Co-Chair Concannon introduced Mr. Jim Linville, Director, Millstone Inspections Directorate, Nuclear Regulatory Commission (NRC) Region I. Mr. Linville gave opening remarks for the NRC segment of the meeting. Co-Chair Concannon then introduced Mr. Lee J. Olivier, Sr., Vice-president, Millstone. Mr. Olivier gave an update on the Millstone station. He stated that Units 1 and 2 were both operating very well and at 100%.

Co-Chair Concannon introduced Mr. John Carlin, Vice-President of Human Services, Northeast Utilities. Mr. Carlin gave a presentation on the Safety Conscious Work Environment (SCWE) at Millstone (Enclosure B).

Mr. Olivier introduced Mr. Ray Necci, Vice-President of Oversight. Mr. Necci gave a presentation on ICAVP (Enclosure C).

Co-Chair Concannon introduced Mr. John Beck of Little Harbor Consultants. Mr. Beck gave an assessment report on the SCWE/ECP (Enclosure D).

Co-Chair Concannon introduced Mr. Bill Raymond, NRC Team Leader. Mr. Raymond presented the results of the 40500 team inspection (Enclosure E).

NEAC members began their business meeting. Dr. Wilds gave a brief update on his KI meetings (Enclosure F).

Mr. Bill Sheehan reported on his visits to the Millstone 2/3 control rooms on May 20, 1999, June 8, 1999, June 26, 1999, and July 14, 1999 (Enclosures G, H, I, J).

NEAC members discussed Mr. Olivier's letter to the Council dated June 24, 1999 on the subject of the proposed decommissioning subcommittee (Enclosure K). Mr. Sheehan motioned to have Ms. Pearl Rathbun and Rep. Kevin Ryan co-chair the decommissioning advisory subcommittee. The motion was seconded by Ms. Mary Ann Buckley and accepted.

The next NEAC meeting will be on September 16, 1999 at the Connecticut Yankee Visitors Center and will be preceded by a plant tour.

Co-Chair Concannon made the motion to adjourn the meeting. The motion was seconded and accepted and the meeting adjourned at 11:45 p.m.

Nuclear Energy Advisory Council (NEAC) Meeting Connecticut Yankee Information Center Haddam Neck, Connecticut October 21, 1999

Ms. Terry Concannon, Co-Chair

Mr. Evan Woollacott, Co-Chair

Ms. Mary Ann Buckley

Mr. John Helm, Sr.

Mr. John Markowicz

Ms. Pearl Rathbun

Mr. Frank Rothen

Mr. Bill Sheehan

Dr. Edward L. Wilds, Jr., representing DEP, Commissioner Arthur J. Rocque, Jr.

Co-Chair Concannon called the meeting to order at 7:30 p.m. on October 21, 1999, at the Connecticut Yankee Information Center, Haddam Neck, Connecticut, following a tour of the plant.

Co-Chair Concannon introduced prospective members to the Decommissioning Subcommittee (Enclosure A). She also introduced Ms. Marjorie DeBold of Haddam, as a new member of NEAC.

Co-Chair Concannon asked for a motion on the acceptance of the July 15, 1999 NEAC minutes. The motion was made, seconded and accepted.

Co-Chair Concannon introduced Mr. Ken Heider, Decommissioning Director of Connecticut Yankee (CY). Mr. Heider gave an update on the status of the CY decommissioning (Enclosure B).

Co-Chair Concannon introduced Mr. Dick Miller, Bechtel Representative, General Manager of Decommissioning. Mr. Miller discussed the accomplishments and current activities at CY (Enclosure C).

Co-Chair Concannon opened the floor to public for comments and questions.

Co-Chair Concannon introduced Mr. Paul Harris of the United States Nuclear Regulatory Commission (NRC). Mr. Harris gave a decommissioning overview (Enclosure D).

Co-Chair Concannon introduced Mr. Rich Kacich, Millstone Unit 1, Director of Business Services. Mr. Kacich discussed a correspondence from Northeast Utilities to the Department of Public Utility Control (DPUC) dated September 15, 1999 (Enclosure E).

Co-Chair Concannon introduced Mr. Larry Temple, Entergy Representative, General Manager Decommissioning. Mr. Temple introduced Mr. David Landeche, Mr. Bryan Ford and Mr. Robert Fraser who all gave a review of the Post Shutdown Decommissioning Activities Report (Enclosure F).

NEAC members began their business meeting. Mr. Bill Sheehan reported on his visits to the Millstone 2 and 3 control rooms on 8/3/99, 8/19/99, 8/31/99, 9/17/99, and 10/6/99 (Enclosures G, H, I, J, K).

Co-Chair Concannon stated that the Connecticut Academy of Science (CASE) has all the statistics for the cancer study and expect to have them assembled by the end of the year. Dr. David Miller is the contact person.

Co-Chair Concannon distributed a copy of NEAC's homepage at Millstone's web site (Enclosure L). Any suggestions should be sent to her attention.

Mr. Hugh Curley, Chair of the Community Decommissioning Advisory Council (CDAC), discussed the status of CDAC.

Co-Chair Concannon distributed a packet of information on the decommissioning subcommittee (Enclosures M, N, O, P).

NEAC members motioned to accept the Statement of Purpose for the Decommissioning Subcommittee (Enclosure Q). The motion was seconded and accepted.

The next NEAC meeting will be on December 9, 1999 at the Waterford Town Hall, Board of Education Conference Room to work on the annual report.

Co-Chair Concannon made the motion to adjourn the meeting. The motion was seconded and accepted and the meeting adjourned at 12:05 a.m.

Nuclear Energy Advisory Council (NEAC) Meeting Waterford Town Hall Waterford, Connecticut December 9, 1999

Ms. Terry Concannon, Co-Chair

Mr. Evan Woollacott, Co-Chair

Ms. Marjorie DeBold

Mr. Mark Holloway

Mr. John Markowicz

Ms. Pearl Rathbun

Mr. Frank Rothen

Dr. Kevin Ryan

Mr. Bill Sheehan

Dr. Edward L. Wilds, Jr., representing DEP, Commissioner Arthur J. Rocque, Jr.

Co-Chair Concannon called the meeting to order at 7:06 p.m. on December 9, 1999, at the Waterford Town Hall, Waterford, Connecticut.

Co-Chair Concannon asked for a motion on the acceptance of the October 21, 1999 NEAC minutes. The motion was made, seconded and accepted.

Mr. Bill Sheehan reported on his visits to the Millstone 2 and 3 control rooms on 11/11/99 and 11/29/99 (Enclosures A & B).

Ms. Pearl Rathbun gave a summary of the Millstone I Decommissioning Advisory Committee (MIDAC). She also passed out minutes of their first meeting (Enclosure C).

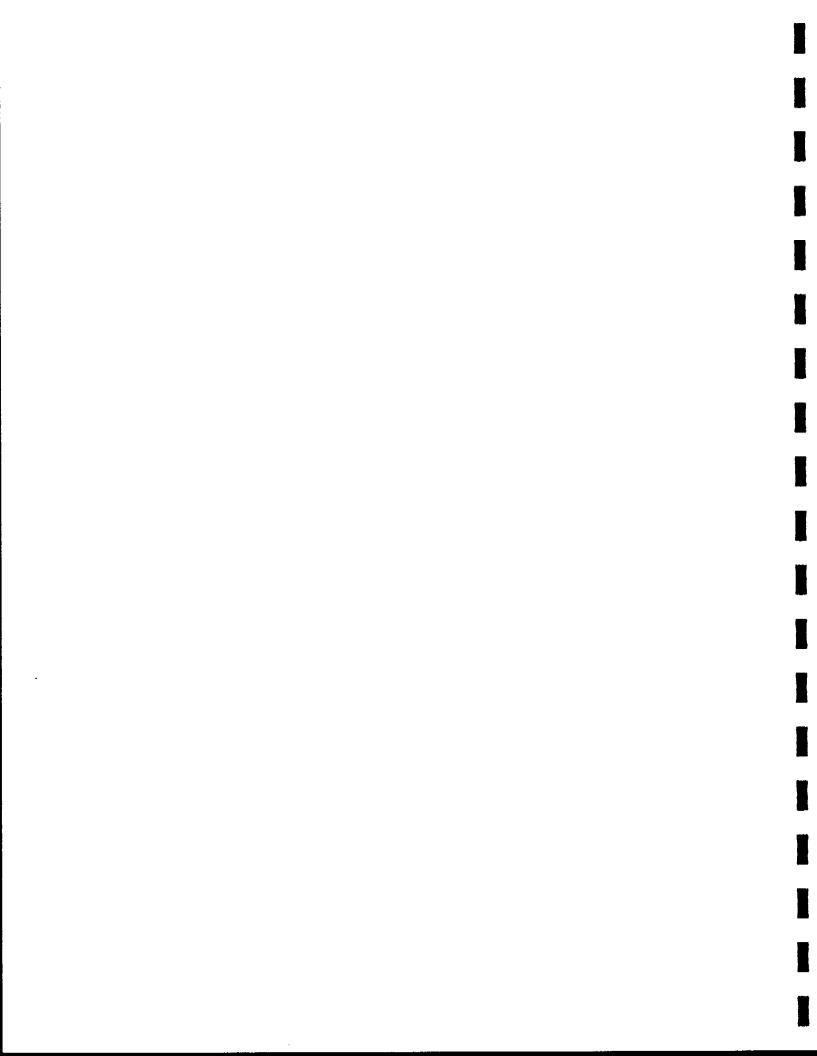
Co-Chair Woollacott asked for a motion on the approval of the modified Statement of Purpose for MIDAC. The motion was made, seconded and accepted.

Dr. Edward Wilds agreed to write a summary on pottasium iodide, Low Level Waste Activity with South Carolina and the Agreement State Process.

NEAC members discussed several items to be included in the annual report. They also discussed essential topics for the upcoming year.

The next NEAC meeting will be on January 20, 2000 at the Waterford Town Hall. Much of this meeting will be dedicated to finalizing and approving the 1999 annual report.

Co-Chair Concannon made the motion to adjourn the meeting. The motion was seconded and accepted and the meeting adjourned at 8:35 p.m.



APPENDIX 3a



WRITTEN STATEMENT OF JOHN MARKOWICZ, VICE CHAIRMAN STATE OF CONNECTICUT NUCLEAR ENERGY ADVISORY COUNCIL (NEAC)

Chairman Jackson and NRC Commissioners. Thank you for this opportunity to again participate in this public meeting on selected issues related to the Millstone site.

My name is John Markowicz. I am a resident of Waterford, CT, and Vice Chairman of the State of Connecticut Nuclear Energy Advisory Council (NEAC). At prior meetings and in written statements, NEAC Co-chair Terry Concannon and I have described the statutory basis, charter, and activities of NEAC, and unless you require additional information, I will proceed directly to comments applicable to the Safety Conscious Work Environment (SCWE) and Employee Concerns Program (ECP) at Millstone.

I would like to begin by relaying to you a January 11, 1999 experience of Co-chair Terry Concannon at a restaurant in Niantic, CT, a short distance from Millstone. She was approached by a group of Millstone employees, quite by chance and without their knowledge of her association with NEAC. They proceeded to engage her in conversation and made the following points:

- 1. The workforce realignment is being taken in a positive manner. The fact that it is being implemented from the top down makes it more credible. It is not the little guys who are taking the hit first. (One of the participants in this conversation had recently lost his management position in the realignment.)
- 2. They were all up beat about Millstone and uttered statements such as: "If we are going to do something, we are going to do it right." We are winners." and "The ECP is the greatest thing." They also conveyed their feelings that ECP tends to get bogged down in "non-nuclear" issues, but they are "learning to sort them out". Those present preferred going to ECP rather than Human Resources.
- 3. They made several statements that were uncomplimentary to the NRC.
- 4. They appreciate that citizens' groups are interested in what they are doing. They want the public to know that they are excellent workers who are aware of the public's welfare, and they would like to get the support and respect that they believe they have earned.

Co-chair Concannon asked that this information be submitted to note that though this was a positive random experience, it indicates that the SCWE and ECP at Millstone while making progress may still be fragile.

I concur with her observations, and on several occasions at public meetings hosted by your staff in Waterford, I have suggested that the order to establish the Third Party Oversight Program (TPOP) not be lifted. I agree with observations by Little Harbor Consultants (LHC), Northeast Utilities (NU), and your staff that there is no need for LHC to maintain full time oversight at Millstone. However, I initially suggested that the NRC relax or modify the order to require LHC to continue in its role, on an on-call basis, until some short time after both the Millstone workforce realignment has been completed and Millstone 2 had been successfully restarted. At the January 11, 1999, public meeting in Waterford, CT, I modified this recommendation in view of the significant concern generated in the community regarding the recently released Office of Inspector General (OIG) Report regarding the discharge of 104 Millstone employees in January 1996. NEAC now suggests, in addition to the foregoing criteria, that LHC remain active as the Third Party Oversight contractor until there is some level of closure to the issues raised in the OIG report. NEAC is concerned about the loss in trust that has occurred with the NRC, particularly among current Millstone employees. In the fragile environment at the site, those employees who are still reluctant to bring issues to the ECP may now be similarly reluctant to bring them to the NRC. Maintaining a LHC presence, even in an on-call capacity, provides these individuals with a relief path, until such time as their confidence in the NRC has been reestablished. In view of the current circumstances, this would appear to be a prudent course of action.

On behalf of NEAC, thank you for this opportunity to address you, and subject to your questions, this completes my prepared remarks.

Very respectfully submitted,

John Markowicz

TRIP REPORT

Purpose: Nuclear Regulatory Commission (NRC) Meeting Testimony/Observation

Location: NRC Headquarters, Rockville, MD

Date: January 19, 1999

On January 19, 1999 as a representative of the Nuclear Energy Advisory Council (NEAC), I traveled to Rockville, MD to testify at and observe a Public Meeting of the Nuclear Regulatory Commission (NRC) at their Headquarters. Attached to this report are the meeting agenda and a copy of my written statement that I read at the meeting. The following additional comments apply

- In her opening remarks, Chairman Jackson raised the recently released Office of Inspector General (OIG) Report regarding Millstone employees terminated in January 1996.
- 2. During Mr. Carlin's (NU Human Resources VP) presentation Chairman Jackson expressed concern about the increase in the number of employees asking for confidentiality regarding their submissions to the Employee Concerns Program (ECP).
- 3. In response to a question from Commissioner Merrifield, John Beck and Billie Garde (LHC) both recommended that the NRC improve the timeliness of their response to allegations as a lesson learned from the OIG Report.
- 4. During the presentation by NRC Staff, Chairman Jackson requested that the Commissioners be provided a check list of additional staff initiatives regarding monitoring the Millstone Safety Conscious Work Environment (SCWE), including triggers for more NRC oversight, assuming the Commissioners voted to rescind the Order that established Third Party Oversight of the SCWE.
- 5. During my presentation, I reemphasized the NEAC recommendation that Little Harbor Consultants (LHC) be maintained in an "On-call" status. There were some present who interpreted my written statement differently.
- 6. Friends of a Safe Millstone, Ron McKeown, voiced support for the NEAC position.
- 7. Atty. Nancy Burton representing Fish Unlimited, focused on the OIG Report and the January 11, 1999 NRC Public Meeting in Waterford. Among other things, she demanded the resignation of Bill Travers, the shutdown of Millstone, and the suspension of the NU license.
- 8. At the end of the meeting, Chairman Jackson approached me, and we discussed additional statements made at the January 11 Meeting, and additional thoughts regarding my written statement.

John Markowicz

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APPENDIX 3b

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WRITTEN STATEMENT OF J. W. "BILL" SHEEHAN MEMBER, STATE OF CONNECTICUT NUCLEAR ENERGY ADVISORY COUNCIL (NEAC)

Chairman Jackson and NRC Commissioners. Thank you for this opportunity to participate in this public meeting on the restart of the Millstone 2 Nuclear Power Plant.

My name is J. W. "Bill" Sheehan. I am a resident of Waterford, CT and a member of the State of Connecticut Nuclear Energy Advisory Council (NEAC). At prior meetings and in written statements, NEAC Co-chair Terry Concannon and NEAC Vice Chairman John Markowicz have described the statutory basis, charter, and activities of NEAC, and unless you require additional information, I will proceed directly into my remarks concerning the readiness of Millstone 2 for restart.

I am the former commanding officer of a nuclear submarine, USS DANIEL WEBSTER (SSBN626) (G). With that past experience in mind, NEAC requested and Northeast Utilities granted permission for me to become badged for unescorted access to the Millstone site. For over a year, I have been periodically monitoring the activities in the Control Rooms of Millstone 2 and Millstone 3 and reporting back to the NEAC.

My first observation of Millstone 2 watchstanders was in September 1998. I would like to share my impressions of the past seven months with you. Although your staff has spent many more hours than I in observing and tracking events than I have, I hope my perspective will be useful as you make your decision concerning the restart of Millstone 2. I have included copies of each monitor report as an enclosure to the written copy of this testimony.

All of my observations take place after normal working hours or on holidays and weekends. My comments are provided to the Millstone 2 Director of Operations for review and any action he felt appropriate. I found the watchstanders to be formal in their communications with each other concerning plant operations. The shift turnover procedures were thorough and the watch briefs whether of a pending evolution or the daily brief were complete. The operators were mindful of reactor safety during the routine conduct of their watches. It was apparent to me that the lessons learned from Millstone 3 had been carried over to Millstone 2. In the seven months I have been making these "snapshot" visits, my major comment, early in the visits, was that the simultaneous turnover of watch stations during watch relief may make it difficult to monitor potentially changing plant conditions.

In summary, It is my personal opinion that the frontline watchstanders are ready to restart Millstone 2.

Subject to your questions, this concludes my comments. Thank you for your attention.

TRIP REPORT

Purpose: Nuclear Regulatory Commission (NRC) Meeting Observation

Location: NRC Headquarters, Rockville, MD

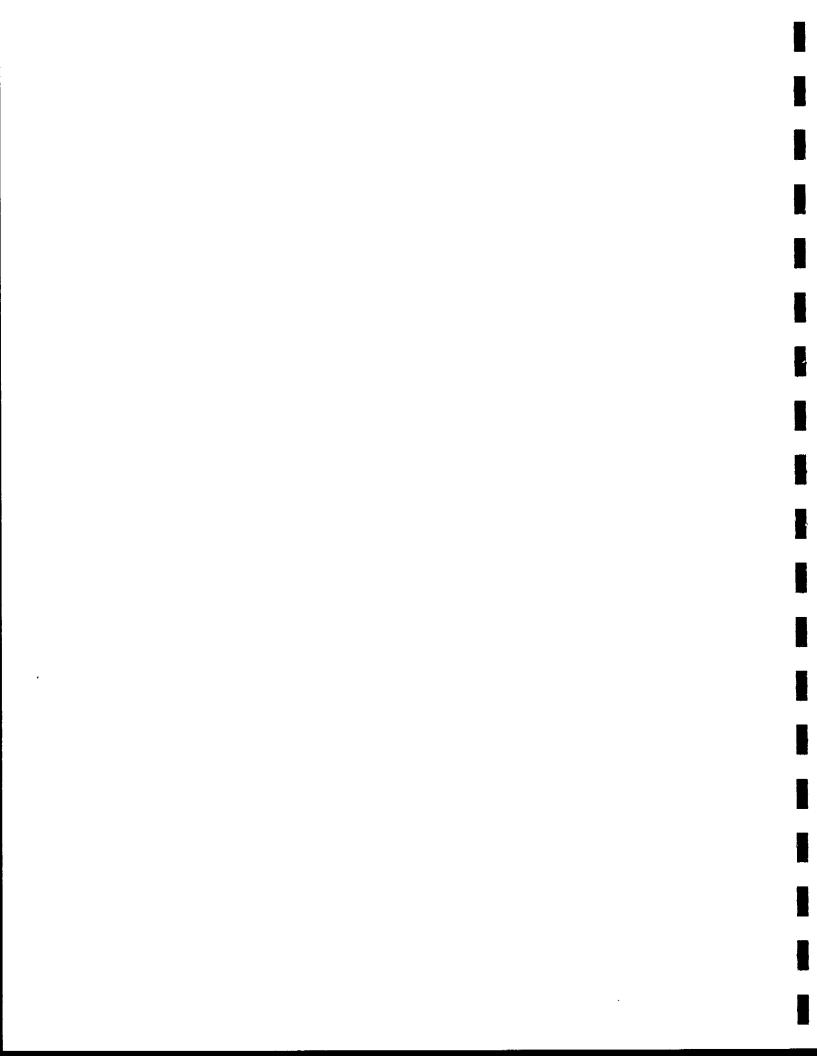
Date: April 14, 1999

On April 14, 1999, in company with John W. (Bill) Sheehan and as representatives of the Nuclear Energy Advisory Council (NEAC), I traveled to Rockville, MD to observe a Public Meeting of the NRC at their Headquarters. A copy of the schedule for this Meeting is attached. Mr. Sheehan testified before the Commissioners, and a copy of his written statement is also attached to this report. The following additional comments apply:

- 1. Northeast Utilities (NU) representatives stated that Millstone 2 was ready for restart and for closure of the NRC Order that established the Corrective Action Verification Program (CAVP). Nearly two hours was spent on this part of the Public Meeting. There were numerous questions from the Commissioners concerning the Corrective Maintenance Backlog.
- 2. Parsons Power representatives reported the results of their CAVP activities, and in response to a Commissioner's question stated that they concurred in a recommendation to lift the NRC Order.
- 3. Three members of the public (Susan Perry-Luxton, Tina Guglielmo, and Joe Besade) spoke in opposition to the restart of Millstone 2. Three members of the public (Thomas Sheridan, Robert Barron, and Ronald McKeown) spoke in support of the Millstone 2 restart. Bill Sheehan read his statement, and he responded to a question from Commissioner Diaz regarding his impressions of non-Control Room NU employee attitudes.
- 4. In response to statements by Tina Guglielmo, Chairman Jackson directed the NRC staff to investigate and report the status of emergency preparedness planning on Long Island in communities between the ten and fifty mile radius of the Millstone Site.
- 5. The NRC staff recommended closure of the CAVP Order and the restart authorization for Millstone 2.
- 6. Since there were no local reporters at the Public Hearing, I spoke with and telefaxed the two attachments to Paul Choiniere of <u>The Day newspaper</u>.

John Markowicz

APPENDIX 4



DATE:

January 11, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 2 CONTROL

ROOM

- 1. On January 10, 1999 I spent from 1436 to 1536 in the control room of MILLSTONE 2 observing the control room watchstanders. The Reactor Plant is in Mode 6. The core has been loaded but the Reactor Vessel Head and core support installation is not complete. Reactor Temp was 89 degrees F. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations.
 - b. No significant actions occurred during the monitor period. The Unit Supervisor left the control room to observe a key evolution during much of the monitor period.
 - c. The NRC Resident Inspector for Millstone 2 visited the control room and was "walking the panels" when I departed..
- 3. A copy of this monitor report was provided to Mike Wilson, Millstone 2 Operations.

DATE:

January 20, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 2 CONTROL

ROOM

- 1. On January 19, 1999 I spent from 1930 to 2030 in the control room of MILLSTONE 2 observing the control room watchstanders. The Reactor Plant is in Mode 6. The core has been loaded but the Reactor Vessel Head installation is not complete. Reactor Temp was 90 degrees F. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations.
 - b. I observed the oncoming shift brief. It was an excellent exchange of information as the shift manager and the unit supervisor briefed, and were briefed by, their watchstanders. The shift manager emphasized safety in all operations. The unit supervisor passed on laudatory comments from the day personnel about the efforts of the previous night. The shift expected to spend the night getting the A Diesel Generator ready for a daytime optest and continue preparations for Mode 5.
 - c. The unit supervisor was not happy that some deficiencies his shift had pointed out on one of the high pressure air compressors had not been fixed during the previous shift. He was especially concerned since another air compressor had increasing oil leaks and should be secured for repairs.
 - d. The work pace has definitely picked up and crew morale along with it.
 - e. A shift technical advisor from Unit 3 was visiting the STA for unit 2 during my monitor to compare notes and procedural differences. This is a great idea!
- 3. A copy of this monitor report was provided to Mike Wilson, Millstone 2 Operations.

DATE:

February 04, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 2 CONTROL

ROOM

- 1. On February 03, 1999 I spent from 1925 to 2030 in the control room of MILLSTONE 2 observing the control room watchstanders. The Reactor Plant is in Mode 5. The core has been loaded and the Reactor Vessel Head installation is complete. Work was in progress to completely restore the Primary components around the Reactor Vessel. Reactor Temp was 90 degrees F. The following comments are germane:
 - Watchstanders were formal in their communications with each other concerning plant operations.
 - b. I observed the oncoming shift brief. It was an excellent exchange of information as the shift manager and the unit supervisor briefed, and were briefed by, their watchstanders. The shift manager cautioned watchstanders that plant conditions had changed significantly since their last watch and they should pay attention as they make their rounds.
 - c. The plans for the shift were to finish up tasks hanging over from the day shift and prepare to a test of A Diesel Generator during the next day shift.
- 3. A copy of this monitor report was provided to Mike Wilson, Millstone 2 Operations.

DATE:

February 16, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 3 CONTROL

ROOM

- 1. On February 15, 1999 I spent from 1808 to 1910 in the control room of MILLSTONE 3 observing the control room watchstanders. The Reactor Plant is in Mode 1 at 100% power. Planned evolution was to isolate Steam Generator Blowdown piping to repair some leaks. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations.
 - b. I observed the brief for the isolation of the blowdown piping. It was complete and concise. The only comment I have is that the unit supervisor used the term "close" vice "shut" when discussing valve and breaker operations.
 - c. The planned isolation might not take place if the high Sodium in one hotwell continued to increase..
- 2. A copy of this monitor report was provided to Mike Brothers, Vice President Operations.

DATE:

March 03, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 2 CONTROL

ROOM

- 1. On March 2, 1999 I spent from 1954 to 2057 in the control room of MILLSTONE 2 observing the control room watchstanders. The Reactor Plant is in Mode 5 and preparations were being made to draw a steam bubble in the pressurizer. There was a planned surveillance of the B Diesel Generator. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations.
 - b. I observed the brief for the surveillance(prelube & air roll) of the B Diesel Generator. It was complete and concise. The evolution was being observed by a member of staff. He noted an error in the procedure that he would correct. It did not effect the pass or fail of the surveillance.
 - c. A member of nuclear oversight was observing control room operations.
- 2. A copy of this monitor report was provided to Dan Hagen, Millstone 2 Operations.

DATE:

March 17, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 2 CONTROL

ROOM

- 1. On March 16, 1999 I spent from 1737 to 1842 in the control room of MILLSTONE 2 observing the control room watchstanders. The Reactor Plant is in Mode 5 and cold rod checks had just completed. Flow balance testing of circulating water system was in progress. A portion of the fire sprinkler system was restored to service during the observation period The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations.
 - b. An operator who was new to the shift came to the control room to thank the Unit Supervisor for his laudatory comments during the shift brief. He was thrilled. It was the first time in 14 years at Millstone that a supervisor had publicly praised him for a job well done. A single "ATTA BOY" can go a long way.
 - c. The Unit Supervisor warned the workers that they would start the fire pump during the system restoration and he was correct. The fire pump started three times during the evolution.
 - d. The value of repeat back communications was shown during restoration of circ water system from the flow testing when the operator repeated back "Start C pump" when the Unit Supervisor directed the starting of "B pump." The unit supervisor realized his mistake and the correct pump was started. Prior to this there had be a detailed discussion of which cooler to place in service to insure the best plant protection in the current lineup.
- 2. A copy of this monitor report was provided to Dan Hagen, Millstone 2 Operations.

DATE:

April 03, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 2 CONTROL

ROOM

- 1. On April 02, 1999 I spent from 1525 to 1630 in the control room of MILLSTONE 2 observing the control room watchstanders. The Reactor Plant is in Mode 3 at normal operating temperature and pressure. Steam was deadheaded to the turbine stops. The watchstanders were in the process of adjusting the pressurizer spray line bypass valves to properly balance spray line valve operation and pressurizer heater operation. The following comments are germane:
 - Watchstanders were formal in their communications with each other concerning plant operations.
 - b. There is reported leakage from valve SI-652, a shutdown cooling isolation valve off one of the reactor coolant system's hot legs. Current leakage is 110ml/min. According to the unit supervisor, this leak rate is within allowed specifications. The leak is being monitored to insure that it is not increasing while repair strategies are being discussed. The worst case repair scenario is cooldown and core off load to completely eliminate the valve leakage. The most optimistic scenario is that the equalizing of the temperature of the valve body after heatup will "seal" the leak due to metal expansion and increased plant pressure.
 - c. Other minor leaks in steam plant piping were being repaired as discovered. The repairs generally consisted of tightening valve packing or checking shut appropriate isolation valves.
 - d. An erratic rad waste monitor was also being investigated. The alarm spiked when the B Rad Waste compressor was in operation.
 - e. Near the end of my monitor an additional minor leak was reported in the containment that appeared to be coming from the reactor vessel head vent valve line. The exact location of the leak and its impact had not been evaluated when I left the control room.
- 2. The watch standers were very busy during my observation period. They are anxious to get Millstone 2 back on line but are still very mindful of reactor safety and the importance of a trouble free startup.
- 3. A copy of this monitor report was provided to Dan Hagen, Millstone 2 Operations.

DATE:

May 03, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 2 CONTROL

ROOM

- 1. On April 23, 1999 I spent from 0835 to 0935 in the control room of MILLSTONE 2 observing the control room watchstanders. The Reactor Plant is in Mode 5 letting temperature drift up is a slow heatup rate. Nuclear Instrumentation testing was in progress. Final assembly of valve SI-652 was in progress. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations.
- 2. The watch standers were busy during my observation period. They are anxious to get Millstone 2 back on line but are still very mindful of reactor safety and the importance of a trouble free startup.
- 3. A copy of this monitor report was provided to Dan Hagen, Millstone 2 Operations.
- 4. This report is late because I was on vacation from April 23 to May 2, 1999.

DATE:

May 10, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 2 CONTROL

ROOM

- 1. On May 09, 1999 I spent from 1430 to 1555 in the control room of MILLSTONE 2 observing the control room watchstanders. The Reactor Plant was in Mode 3 at the point of adding heat and maintaining reactor power between 10-2 and 1 percent power. Preparations were in progress to proceeding to Mode 2(greater than 5% power). The following comments are germane:
 - Watchstanders were formal in their communications with each other concerning plant operations.
 - A resident inspector from the NRC was observing the control room operations.
 - c. The crew briefing for Plant startup (starting a feed pump and shifting steam to turbine from the dumps) conducted by the shift manager was complete. Both he and the unit supervisor emphasized caution and slow progress. The operators were ready to move ahead a best speed while the managers were directing caution and safety.
- 2. The watch standers are anxious to get Millstone 2 back on line but are still very mindful of reactor safety and the importance of a trouble free startup.
- 3. A copy of this monitor report was provided to Dan Hagen, Millstone 2 Operations.

DATE:

May 21, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 3 CONTROL

ROOM

- 1. On May 20, 1999 I spent from 1710 to 1812 in the control room of MILLSTONE 3 observing the control room watchstanders. The Reactor Plant was defueled and the control room was controlling temperature in the spent fuel pool. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations.
 - b. NU has introduced a digital phone system that has enhanced communications between watchstanders. Rather than searching for the nearest phone, an operator or technician can call directly from the site and the control room watchstander can be standing directly infront of the indications in question during the conversation.
 - c. The outage work is controlled by the "One Stop Shop" located in a trailer by unit three maintenance. There are TV cameras on the Unit Supervisor and the Shift Managers PCs and they can video conference with the one stop shop as necessary or communications can be by the digital phones mentioned above. There was extensive communication between the watch and the one stop shop during my visit.
 - d. Technicians determined the MP3 hot line with Waterford was not working although security was able to communicate with Waterford. Trouble shooting was in progress when I left the plant.
 - e. A motor operated valve test failed during my monitor. The unit supervisor suspected a problem with a low pressure jumper required to permit the valve to operate when plant is at low pressure.
- 2. The watch standers appeared to be very concerned about plant and equipment safety as they worked through the outage problems.
- 3. A copy of this monitor report was provided to Mike Wilson, Millstone 3 Operations.

DATE:

June 09, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 2 CONTROL

ROOM

- 1. On June 08, 1999 I spent from 2005 to 2050 in the control room of MILLSTONE 2 observing the control room watchstanders. I had intended to monitor the "One Stop Shop" directing the MILLSTONE 3 refueling outage but the "One Stop Shop" was out for training so after a five minute tour of the facility I proceeded to MILLSTONE 2. The Reactor Plant was operating at 100% power. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations.
 - b. The Shift Manager made a careful walk of the "boards" early in my monitor to satisfy himself that plant conditions were as expected.
 - c. The Unit Supervisor cautioned the carpet cleaners to be careful around the nuclear instrumentation cabinets as they were wetting the carpet for a needed cleaning.
 - d. The Unit Supervisor was careful to insure that the Control Room Watchstanders knew where he was if he went out of their "eyesight" to the Shift Manager or STA Offices or behind a panel in the control room.
- 2. There is one material problem that might impact operations in the future. There is a hydraulic oil leak on one of the control valves for the main turbine where an "O ring" has blown out. There is a temporary fix that is holding for now. Plans are to repair the leak at the next shutdown opportunity assuming that the temporary fix continues to control the leak rate to a manageable level.
- 3. A copy of this monitor report was provided to Dan Hagen, Millstone 2 Operations.

DATE:

June 28, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 3 CONTROL

ROOM

- 1. On June 26, 1999 I spent from 1047 to 1147 in the control room of MILLSTONE 3 observing the control room watchstanders. The Reactor Plant was in Mode 3 (Hot Standby) and watchstanders were testing the operation of the "Terry" Turbine. The following comments are germane:
 - Watchstanders were formal in their communications with each other concerning plant operations.
 - b. I observed this same evolution on May 1, 1998 during restart efforts. The year+ has made a significant difference in the conduct of this surveillance.
 - 1) The surveillance was changed to permit starting the evolution with the pressurizer level high in the operating band to anticipate the expected drop in pressurizer level.
 - 2) There were four control room operators to conduct the test vice the two a year ago.
 - 3) A computer aided indication system was available that plotted the values of key parameters in real time so that the change during the evolution was easily determined and an adverse condition more readily avoided. I was given a plot of the transient and will include it with the hard copy of this monitor.
 - c. There was some difficulty communicating with the Terry Turbine operators. The transmissions kept breaking up and could have been a significant difficulty if there had been any problems during the surveillance.
 - d. The recirculation flow was greater that the band printed on the data sheet. This was expected because the impeller of the recirc pump had been replaced during the refueling shut down. However, the data sheet had not been changed. The onsite engineer was consulted and he stated that they would change the data sheet after a base line on the recirc pump was determined from the current surveillance.
- 2. Although the data sheet error was minor, it is an indication that there is still a lack of anticipation in some sections of the support groups. Since a key material part had been replaced, it would have been prudent to provide a caution or note that the recirc flow would probably not be in the "old" expected operating range.

A copy of this monitor report was provided to Mike Wilson, Millstone 3 Operations.

DATE:

July 15, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 2 CONTROL

ROOM

- 1. On July 14, 1999 I spent from 1723 to 11825 in the control room of MILLSTONE 2 observing the control room watchstanders. The Reactor Plant was at 100% power. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations.
 - b. A containment entry had been made earlier in the day to isolate a Reactor Coolant Leak from a line to Loop 2A differential pressure detector, PDT124Y. The operators were monitoring the decrease in the airborne activity in the containment after the successful isolation of the detector. It had been determined that this detector was not required by any design requirement or the FSAR prior to isolation.
 - c. The RCS leak accounted for three of the four alarms. The other alarm was a piece of equipment out for routine maintenance.
- 2. A copy of this monitor report was provided to Dan Hagen, Millstone 2 Operations.

DATE:

August 4, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 3 CONTROL

ROOM

- 1. On August 3, 1999 I spent from 2056 to 2157 in the control room of MILLSTONE 3 observing the control room watchstanders. The Reactor Plant was at 100% power and watchstanders were conducting a surveillance of the "Terry" Turbine. The following comments are germane:
 - a. Watchstanders were generally formal in their communications with each other concerning plant operations. However, the Unit Supervisor cautioned one of the Outside Mechanical Operators using a Control Room phone that his conversation was too informal.
 - b. During this surveillance, the recirculation flow was lower than the new band established during the testing of the Terry Turbine in June prior to start up from Outage 6. This deficiency will have to be investigated. Because of this condition, the Shift Manager declared the Terry Turbine available but inoperable.
 - c. During the surveillance, one of the valves did not "stroke" within the specified time. It took 41 seconds when the procedure stated maximum time should have been 34 seconds. This deficiency will also have to be resolved before the Terry Turbine will be "operable."
 - d. Unrelated to the testing, a Mechanical Operator reported an Auxiliary Steam leak into a RADWASTE tank. There were no radiological or other alarms in control. The leak was stopped but the contents of the RADWASTE tank will have to be processed as contaminated water.
 - e. In another unrelated occurrence, a mechanical operator reported a leaking valve in the demineralizer system in the Bravo Diesel Generator Room. He was directed to submit a Trouble Report (TR).
- 2. This was a busy period for the watchstanders. The minor problems that surfaced during my hour visit point out the importance of alert watchstanding and concern for the proper operation of the plant. Two situations were detected by watchstanders before any instrumentation reflected a problem.
- 3. A copy of this monitor report was provided to Mike Wilson, Millstone 3 Operations.

DATE:

August 20, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 2 CONTROL

ROOM

- 1. On August 19, 1999 I spent from 1807 to 1910 in the control room of MILLSTONE 2 observing the control room watchstanders. The Reactor Plant was at 100% power. The following comments are germane:
 - Watchstanders were formal in their communications with each other concerning plant operations.
 - b. Just as I entered the control room, the watch section was answering a series of alarms for temperatures in instrument cabinets in one of the computer rooms that had lost its air conditioning. They were monitoring the cabinet temperatures and had opened the door to the computer room to provide ventilation from an adjacent room that had air conditioning. Ambient temp in the room stayed around 70 degrees during my visit.
 - c. I watched the shift turnover from the day to the night section. Individual operators and supervisors were detailed in providing their relief with pertinent plant information and all the watchstanders "walked the boards" with their relief. There are two areas where I think the relief process could be improved:
 - During the "walking of the boards" all of the watchstanders ended up monitoring the electrical distribution panels at the same time. No watchstander was monitoring the steam plant or the reactor plant panels. This would have slowed down any response to a reactor or steam problem if it occurred during watch turnover.
 - No watchstander announced his relief. From the unit supervisor on down, when they had finished turning over data, they just left. It would be more definitive if there was a report by the unit supervisor that "John Doe is unit supervisor" and that the other watchstanders reported their relief to the unit supervisor. There would not be any question who was responsible for the safety of the plant, the oncoming or the offgoing operator.
- 2. I discussed these comments with the shift managers (oncoming and offgoing). A copy of this monitor report was provided to Dan Hagen, Millstone 2 Operations.

DATE:

August 31, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 3 CONTROL

ROOM

- 1. On August 30, 1999 I spent from 1522 to 1623 in the control room of MILLSTONE 3 observing the control room watchstanders. The Reactor Plant was at 100% power and watchstanders had just taken the watch and were preparing for an Op Test of the B Motor Driven Auxiliary Feed Pump. Routine work and testing was in progress on a number of Instrumentation and Control circuits. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations.
 - b. A valid RMS Trouble Light (Radiation Monitoring System) was received. It occurred when one complete loop of radiation monitoring equipment was lost while I&C was testing one monitor. The Unit Supervisor assisted the Control Room Operator recover the loop when the control room operator informed him that he had never performed this evolution. Recovery was accomplished without breaking out and checking a written procedure.
- 2. The Unit Supervisor informed me that this was an occasional problem with the radiation monitoring equipment. Depending on the cycle of reading the instruments by the attached computer, it was possible for the system to see all detectors in a loop as out of commission when only one was out for testing. The problem did not occur every time a detector was deenergized for maintenance but was dependent upon where the monitoring program was in its cycle through the radiation detectors.
- 3. A copy of this monitor report was provided to Mike Wilson, Millstone 3 Operations.

DATE:

September 20, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 2 CONTROL

ROOM

- 1. On September 17, 1999 I spent from 1707 to 1815 in the control room of MILLSTONE 2 observing the control room watchstanders. The Main Turbine had just been tripped and the Reactor Plant was in the process of being shut down. The following comments are germane:
- a. Watchstanders were generally formal in their communications with each other concerning plant operations.
 - b. As I entered the control room, the report that the main turbine was tripped was made to the shift supervisor. Based on questions and reports, the steps leading to this event included the following:
 - 1) Circulating water water box temperatures were rising due to debris from Tropical Storm Floyd.
 - 2) Power was reduced to 80% to reduce heat load and one water box was taken off line for cleaning. Unfortunately the remaining three water boxes could not handle the heat load and the permitted discharge water temperature of 105 degrees was exceeded by one degree for approximately forty minutes.
 - 3) When power was reduced further to 65%, a rod in Group 7 "slipped" out of alignment with the remainder of the group. Efforts to realign were not successful.
 - 4) During the shutdown of the steam plant, when the Feedwater regulating valves shifted to single element, they "slammed" shut. It was necessary to override in manual to properly feed the steam generators. According to Dan Hagan the feed regulating valve and bypass did go closed. Upon investigation, it was determined that this was the appropriate response to the control signals for the valve. The operator took manual control of the valves and maintained Steam Generators levels.
 - c. After some discussion and the recommendation of an engineer, it was decided to "scram" the out of alignment rod and then drive the remaining member of the group to the bottom then proceed with a normal shutdown. I was surprised that there was a discussion. I would have expected that there would be a cut and dried Casualty Procedure to follow in the case of a dropped or partially dropped rod. Dan Hagan informed me that there is a "casualty" procedure for Control Rod malfunctions Abnormal Operating Procedure 2556 "CEA Malfunctions". The crew was using that procedure as they tried to recover the dropped rod. When the recovery was unsuccessful, the crew entered the procedures for removing the unit from service. They borated to shutdown the reactor. At that point, the rod was tripped and the remaining rods were inserted.
 - d. During the shutdown, the Reactor operator took control of the shutdown from the unit supervisor when he reported "driving rods in " before directed by the unit supervisor. The unit supervisor immediately ordered "commence driving rods in". This order was not

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acknowledged by the Reactor operator who was taking the action. This was the only incident I observed where communications were not correct and clear during the shutdown evolution. In fact, the next exchange between the RO and the US was very clear and concise with proper repeat-backs. Dan Hagan commented that a dedicated RO and SRO perform rod movement. The US has overall commend and control but the SRO at the controls may give direction for specific manipulations..

- e. The unit supervisor "logged out" of the Casualty Procedure and continued with a normal shutdown when Group 7 was on the bottom.
- 2. Except for the incident above, communications was excellent and the entire control room had a good feel for the progress of the evolution.
- 3. I discussed these comments with Dan Hagen, Millstone 2 Operations. On Friday management was planning a 48 hour shutdown for repairs. According to Dan the latest information on this work scope is that Rod 65 had a hard ground. The ground was locating in Containment is currently being repaired. Expected to be starting the reactor on Tues-Wed.

DATE:

October 07, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 2 CONTROL

ROOM

- 1. On October 06,1999 I spent from 1715 to 1815 in the control room of MILLSTONE 2 observing the control room watchstanders. The Reactor Plant was at 100% power. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations.
 - b. The roving watchstander and the on shift chemist reported that ETA (ethylene amine) had been detected in the water in the auxiliary building condensate recovery tank. The sample had been taken because an alarm condition existed on the tank and it needed to be pumped down.
 - c. Investigation and watchstander memory revealed that it is possible there was a discharge of ETA from this tank on the previous day when it was pumped down during a Steam Generator blowdown evolution. The Shift Manager directed the drafting of a CR (Condition Report) to document this possibility and start the formal investigation. He also directed the sampling of all other condensate recovery tanks. Appropriate plant managers were notified of the potential problems.
 - d. An alternate method of draining the tank was discussed involving draining the contents into "Totes" that could be taken away and stored until a proper discharge path and/or filtering could be determined.
- 2. The actions of shift management were appropriate to the problem. Further investigation and planning would be required before the final discharge method was determined.
- 3. A copy of these comments were provided to Dan Hagen, Millstone 2 Operations.

DATE:

October 25, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 3 CONTROL

ROOM

- 1. On October 23, 1999 I spent from 1307 to 1407 in the control room of MILLSTONE 3 observing the control room watchstanders. The Reactor Plant was at 100% power and routine work and testing was in progress. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations.
 - b. Watchstanders spent most of the period of observation discussing the evolutions and surveillances that they would be conducting next week. They wanted to make sure that they did not have any questions concerning these procedures.
- 2. The Unit Supervisor informed me that they were experiencing some minor problems with an auxiliary system air operated valve and maintenance was determining what was needed for repairs. In short, this was a routine watch-the best kind.
- 3. A copy of this monitor report was provided to Mike Wilson, Millstone 3 Operations.

DATE:

November 12, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 2 CONTROL

ROOM

- 1. On November 11, 1999 I spent from 1707 to 1810 in the control room of MILLSTONE 2 observing the control room watchstanders. The Reactor Plant was at 100% power. The following comments are germane:
 - Watchstanders were formal in their communications with each other concerning plant operations.
 - b. There were two Control Room Operator trainees on watch and there were numerous questions on plant conditions and situations. Weekend surveillance evolutions were discussed by the watchstanders.
- 2. This was the best kind of monitor, no comments.
- 3. A copy of these comments was provided to Dan Hagen, Millstone 2 Operations.

DATE:

November 30, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 3 CONTROL

ROOM

- 1. On November 29, 1999 I spent from 1724 to 1825 in the control room of MILLSTONE 3 observing the control room watchstanders. The Reactor Plant was at 100% power and watchstanders were holding a pre-evolution brief for an unusual evolution, the pressure testing of an underground diesel fuel tank. The MP3 Director of Operations was observing the brief. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations.
 - b. After the evolution briefing there were no further significant events during the observation visit.
- 2. The Director of Operations informed me that this evolution was required by Connecticut DEP to insure the integrity of metal underground stowage tanks. The major concern for all operators was to insure that there was no accidental leakage of the diesel fuel during the test.
- 3. A copy of this monitor report was provided to Mike Wilson, Millstone 3 Operations.

DATE:

December 16, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

RE:

MONITOR WATCH IN MILLSTONE 2 CONTROL

ROOM

- 1. On December 15, 1999 I spent from 1805 to 1925 in the control room of MILLSTONE 2 observing the control room watchstanders. The Reactor Plant was at 93% power. The following comments are germane:
 - Watchstanders were formal in their communications with each other concerning plant operations.
 - b. The RPS Channel D was still disabled due to the faulty Hot Leg RTD.
 - c. Ground isolation procedures were in progress. The ground detector on Bus 22A had alarmed at 1351 that afternoon and the "easy" loads had all been checked. A senior electrician arrived from Unit 3 (he was covering both units) to assist in the troubleshooting. The ground was found in a Group A fan at 1915. This ground isolation was particular difficult because an automatic bus transfer (ABT) switch supplied power to the fans so the ground did not initially disappear when the fans were isolated since their power supply just shifted. This realization was the key to finding the ground when it was observed to shift from one power supply to the other. The offending fan was electrically isolated. It was a matter of principle to the off going shift not to turn over an unknown ground if they could help it.
 - d. Shift turnover procedures were excellent. The watch standers "walked the boards" separately and each operator reported his relief to the unit supervisor. The unit supervisor did not relieve until all the other watch standers had reported their relief and the shift manager was the last to be relieved.
 - e. During the ground isolation procedures, another ground was found on a set of air dryer heaters. This masked the original ground for a while.
- 2. The watch section was very professional in their attack on the ground and continued to teach the watch standing trainees during the whole evolution.
- A copy of these comments was provided to Dan Hagen, Millstone 2 Operations.

DATE:

December 28, 1999

TO:

Evan Woollacott and Terry Concannon, CoChair, NEAC

FROM:

Bill Sheehan

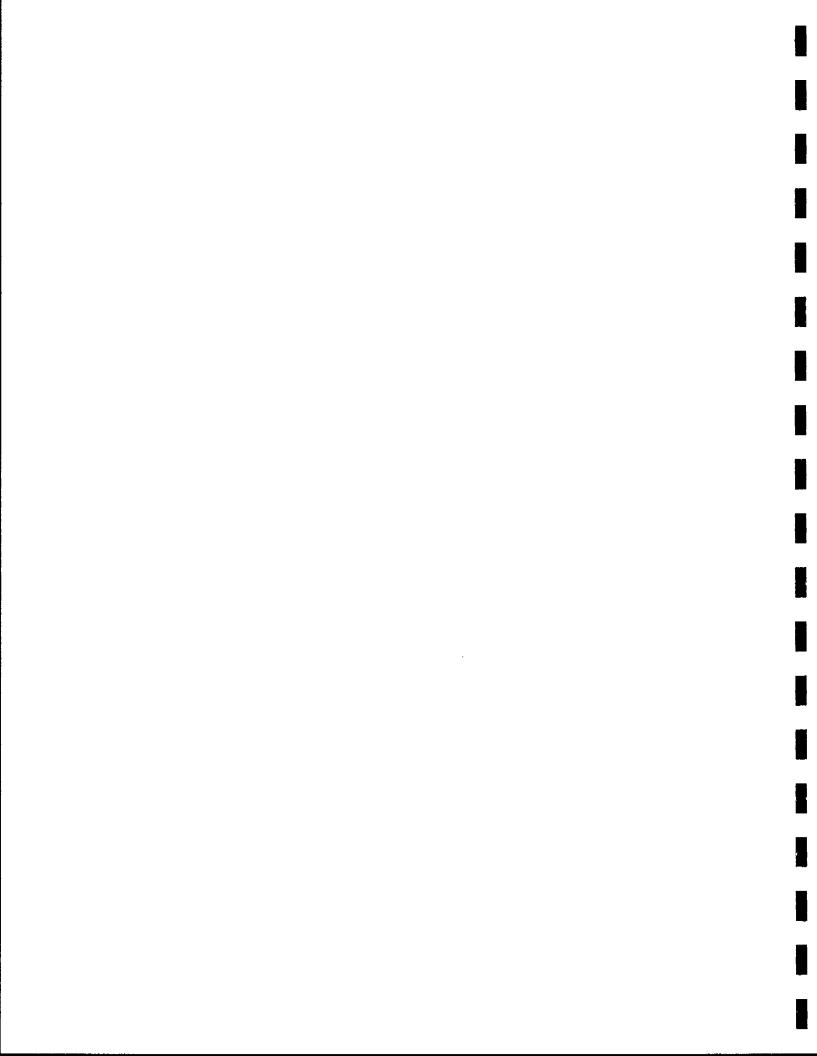
RE:

MONITOR WATCH IN MILLSTONE 3 CONTROL

ROOM

- 1. On December 28, 1999 I spent from 1109 to 1210 in the control room of MILLSTONE 3 observing the control room watchstanders. The Reactor Plant was at 100% power and watchstanders were conducting an operational test of the B Emergency Diesel Generator and a number of Instrumentation and Control surveillances were in progress. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations. The verbal communications during the operation and loading of the diesel generator and during routine watch rotations for lunch breaks was noteworthy.
 - b. When paralleling the diesel generator to site power, the operator initially did not synchronize properly and had to try again. The Unit Supervisor used the minor "error" as a training opportunity for the unit supervisor under instruction.
- 2. The operators were alert for any problems generated by the other I&C testing in progress. This is an excellent watch section.
- 3. A copy of this monitor report was provided to Mike Wilson, Millstone 3 Operations.

APPENDIX 5



Secretary of the Commission Nuclear Regulatory Commission Attn: Rulemakings and Adjudications Staff Washington, DC 20555-0001 CRC Emergency Preparedness 18 Yorkshire Drive Waterford, CT 06385

July 23, 1999

Dear Sir:

We support the recent NRC proposed rulemaking change entitled "Consideration of Potassium Iodide in Emergency Plans." We are enclosing signed petitions from Connecticut citizens who desire that Potassium Iodide be available to the general public.

Sincerely,

Pati Harper

Mark Holloway

Citizens Regulatory Commission
180 Great Neck Road, Waterford, Connecticut 06385 Tel. (860) 444-0113
Email: crcnukewatch@snet.net

Neighbors Asking Questions

The World Health Organization, the International Atomic Energy Agency and our own Federal Government have stated that Potassium Iodide (KI) is a prudent measure for protecting the thyroid during a radiological accident. The Federal Government has offered to fund the purchase of KI when requested by State and Local authorities. At the present time, KI is not readily available to Connecticut's citizens.

We the undersigned are asking the State of Connecticut to request KI from the Federal Government and stockpile and distribute it to interested citizens. "It is better to have it and not need it, than to need it and not have it."

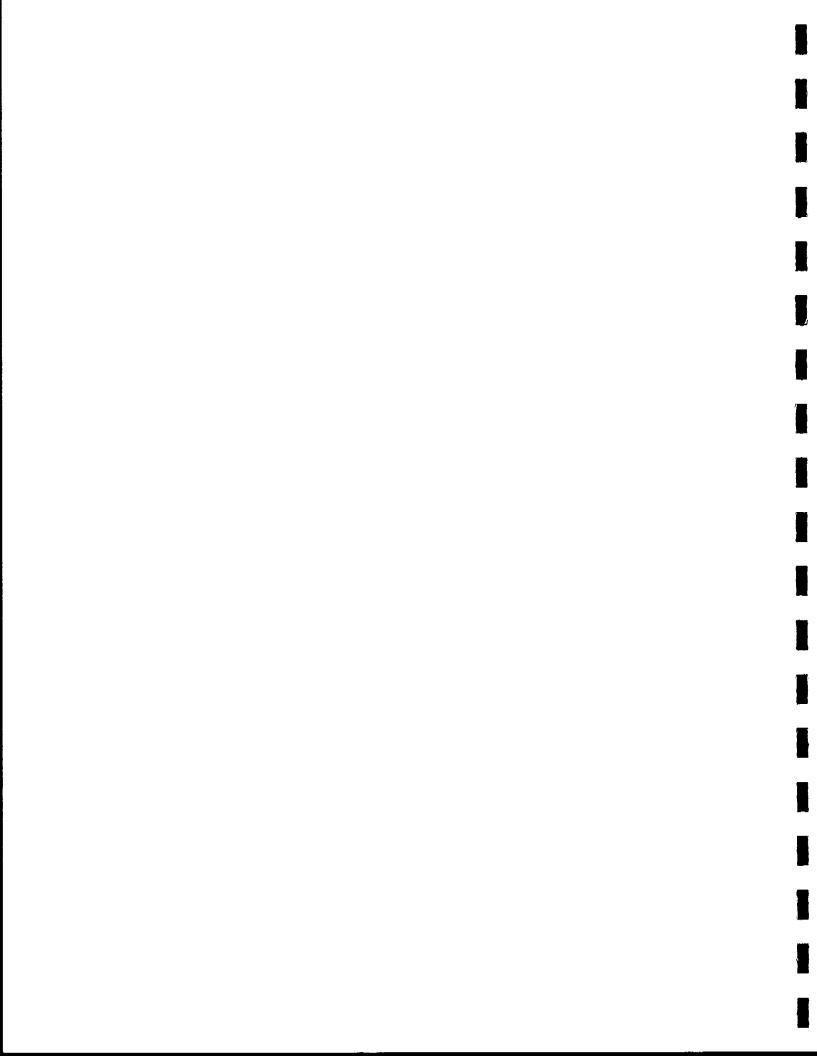
Note: Petition signed by 526 individuals.

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APPENDIX 6a

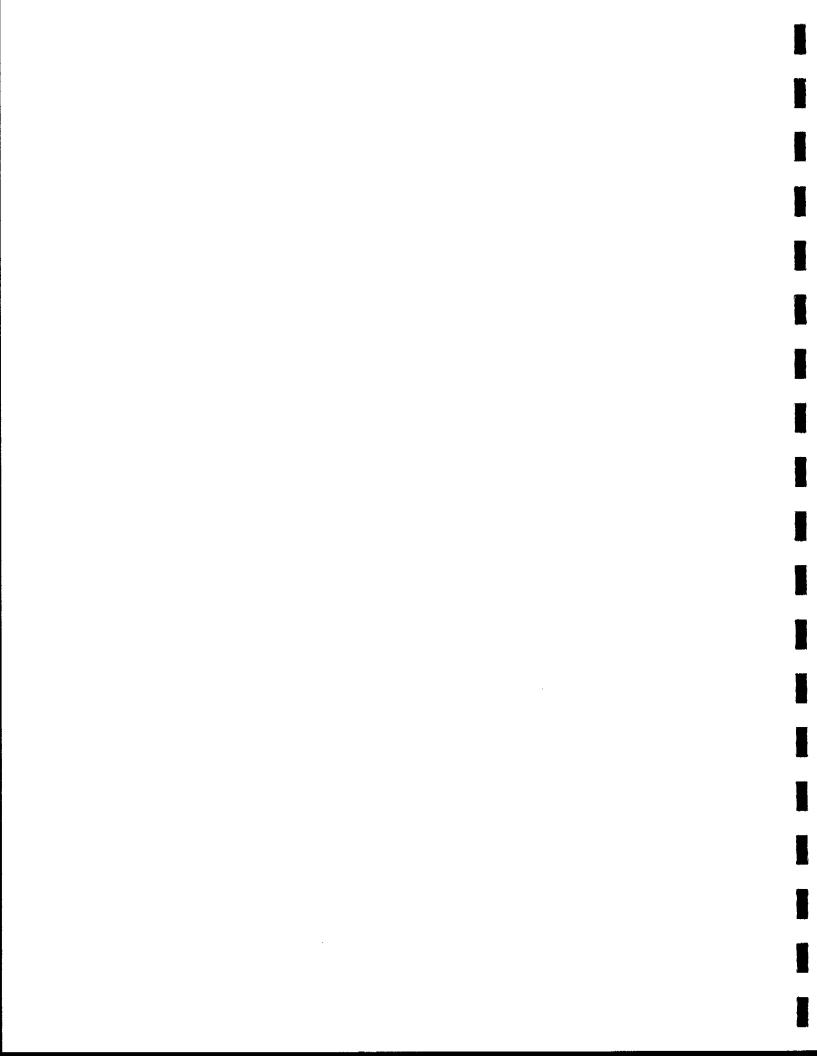
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APPENDIX 6b

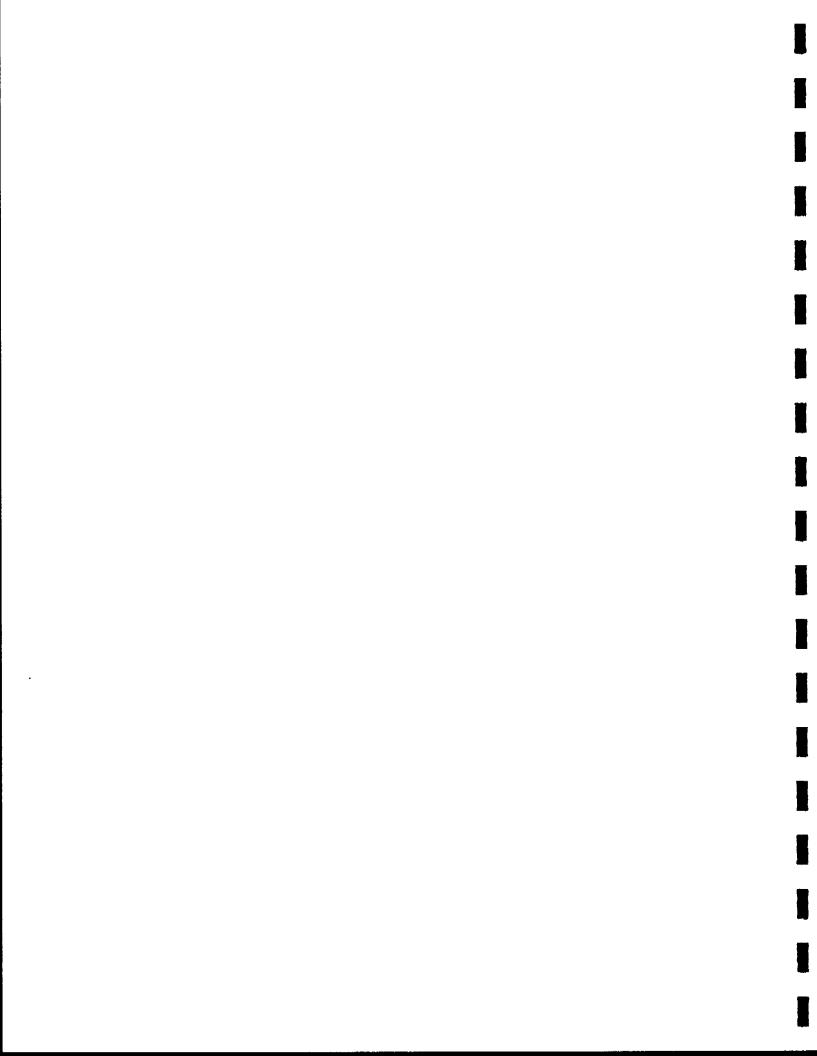


NEAC'S MILLSTONE 1 DECOMMISSIONING ADVISORY COMMITTEE

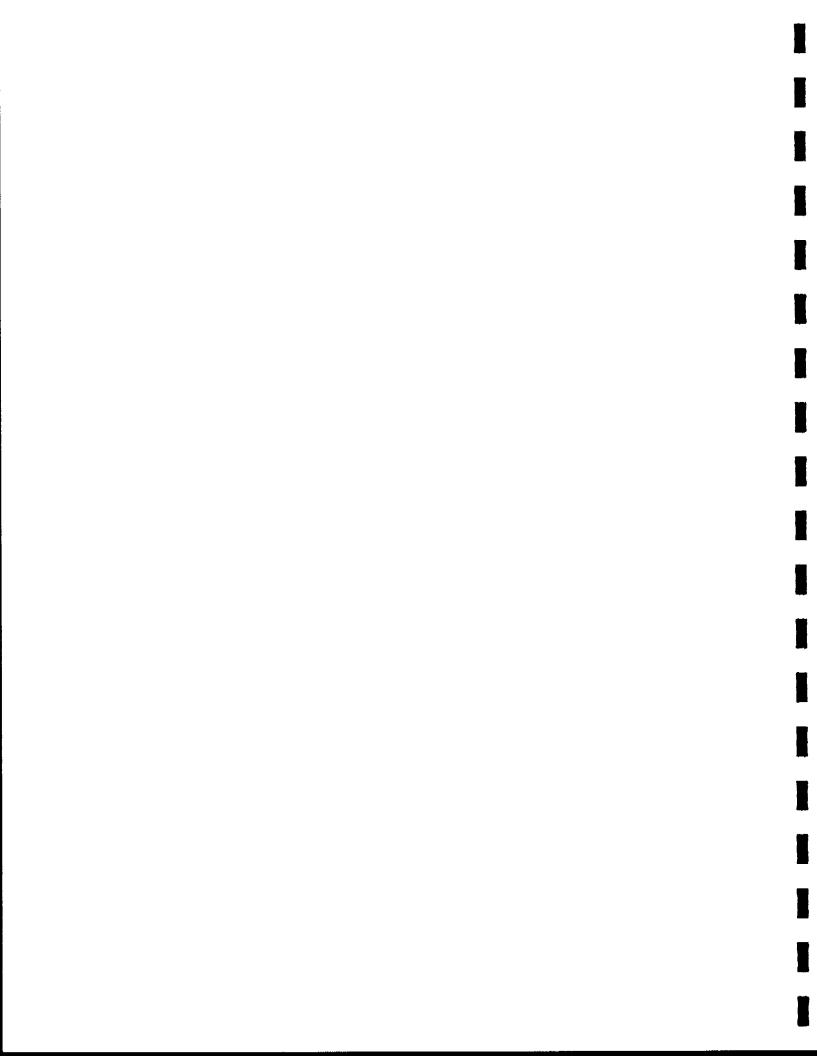
Last Name	First Name	Address	City	Zip Code	Home Phone	Work Phone	Fax Number	Email Address
Bobruff, MD	Gerry	765 Pequot Ave.	New London	06320	(860) 442-5091		(860) 444-0727	
Burton	Kathryn	38 Pattagansett Dr.	East Lyme	06333	(860) 739-7791	(860) 739-7791	(860) 739-5377	kburton759@aol.com
Coleman	Joseph	11 South Cobblers Ct.	Niantic	06357	(860) 739-5790			jcolend51@aol.com
Dixon	Gregg	23 Bayview Ave.	Niantic	06357	(860) 691-1522	(860) 444-8539	(860) 444-8546	gdixon@exmail.uscga.edu
Fraser	Wayne	P.O. Box 519	Niantic	06357		(860) 739-6931	(860) 691-0773	
Moore	Robert	170 Pennsylvania Ave.	Nantic	06357	(860) 739-5908	(860) 739-6208	(860) 739-8308	
Rathbun	Pearl	74 Carriage Hill Dr.	Niantic	06357	(860) 739-9643	(860) 739-2420	(860) 691-0463	pirgwr@uconect.net
Ryan	Kevin	21 Terrace Dr.	Oakdale	06370	(860) 848-0790	(860) 240-8589	(860) 848-4379	kryan27620@aol.com
Sadler	lvan	41 Shermor Place	New London	06320	(860) 443-7390	(860) 447-6050	(860) 447-6056	iman@ctol.net
Sherrard	James	66 Algonquin Dr.	Mystic	06355	(860) 536-2158	(860) 885-2393	(860) 886-4960	
Shumway	Doran	34 Pires Dr.	Oakdale	06370	(860) 848-0798		(860) 848-2413	dorans7@aol.com
Suprin	Paul	140 Great Neck Rd.	Waterford	06385	(860) 442-1732		(860) 444-0281	
Winslow	Geralyn (Geri)	30 Mullen Hill Rd.	Waterford	06385	(860) 442-7073		(860) 447-1241	nomistn@aol.com



APPENDIX 6c



APPENDIX 6d



NUCLEAR ENERGY ADVISORY COUNCIL (NEAC) <u>Millstone Decommissioning Subcommittee</u>

Meeting, Waterford Town Hall Auditorium, Thursday, November 18, 1999

Co-chair, Pearl Rathbun, called the meeting to order at 7.07 p.m., welcomed members and spoke of the origins of the sub-committee which was approved by NEAC vote on July 15, 1999. She said that this first meeting was to serve as an organizational meeting.

Present: Pearl Rathbun (co-chair), Rep. Kevin Ryan (co-chair), Kathryn Burton, Joseph Coleman, Gregg Dixon, Ivan Sadler, Geri Winslow, Terry Concannon (ex officio, NEAC), Paul Blanche (ad hoc).

Absent: Bobruff, Fraser, Moore, Sherrard, Shumway, Suprin.

Self-introductions were made by members. Backgrounds are diverse and all live within the Millstone Emergency Planning Zone (EPZ). None are employees of NU. Interested NU personnel have an 'ad hoc,' non-voting role. Those who could not attend had responded that the date (November 18) created a conflict for them, but all were interested and hoped that future meetings could accommodate their various schedules.

Program:

Larry Temple, General Manager Decommissioning at Millstone Unit 1 (MP1), introduced members of the Entergy management team present. They total 7 full-time personnel. He looks forward to working with the sub-committee.

Bob Fraser, Director Unit 1 Decommissioning, made presentation; Nuclear Power Plant Decommissioning Fundamentals (Attachment 1)

Responses to questions from committee members included:

- Subsequent to the pending auction of the nuclear power plants by Northeast Nuclear Company, Millstone I could not reopen/re-operate without a change in the law,
- There are 22 systems shared between Millstone 1 and/or Millstone 2 and 3, such as compressed air. Their separation is being addressed by 18 design-change packages under the supervision of the Millstone 2 and 3 Quality Assurance Work Program and the direction of Entergy. The Separation Alignment Board is in place,
- There are 2,885 spent fuel assemblies in MP1's spent fuel pool.

NRC Resident Inspector for MP1, Paul Cataldo, was introduced. He will be on-site until the end of October 2000 and may be contacted at (860) 701-3470.

Business Meeting:

- 1) Statement of Purpose was reviewed (Attachment 2). In order to assign the responsibility of committee spokesperson/s the motion to add, 'and any such information shall be disseminated by the co-chairs' to the last line, was made by Sadler, seconded by Burton, and approved. Motion to accept amended Statement of Purpose, made by Sadler, seconded by Burton, was approved.
- After much discussion concerning a future meeting schedule, the consensus was reached to try the first Thursday of each month. Should that prove unsuitable for committee members, further modification can be made.
- 3) Publicity: Web site on millstonestation.com. A hyperlink can be developed for email purposes.

 Press releases; Kathryn Burton agreed to handle these since this is her area of expertise.

 The New London Day and the Norwich Bulletin are the relevant newspapers.

 Cable broadcasting of the meetings on Public Access TV will be investigated.
- 4) Future agendas: Paul Blanche requested time to address the committee at the next meeting. The NRC and Entergy will be available to report at each meeting.
- 5) The badging of one or two of the members, which 'qualification' permits unescorted access onto the plant site, had been suggested by NU. Kathryn Burton and Gregg Dixon expressed interest in pursuing this.

- 6) Secretarial assistance has to be requested through formal channels, by DPUC to Dept. Administrative Services (DAS). A Temp agency in New London is under contract to the state. Terry Concannon will follow up on this. NEAC has a \$9,500 budget for FY2000 to cover travel and other expenses. This will now have to cover the secretarial costs in addition. Rep. Kevin Ryan said that he would take responsibility for disseminating the minutes and agendas to the committee members through his legislative office.
- 7) Name for the subcommittee: Various permutations and combinations of suitable names and acronyms were discussed. Gregg Dixon's suggestion met with consensus:

MIDAC = $\underline{\mathbf{M}}$ illstone $\underline{\mathbf{1}}$ $\underline{\mathbf{D}}$ ecommissioning $\underline{\mathbf{A}}$ dvisory $\underline{\mathbf{C}}$ ommittee.

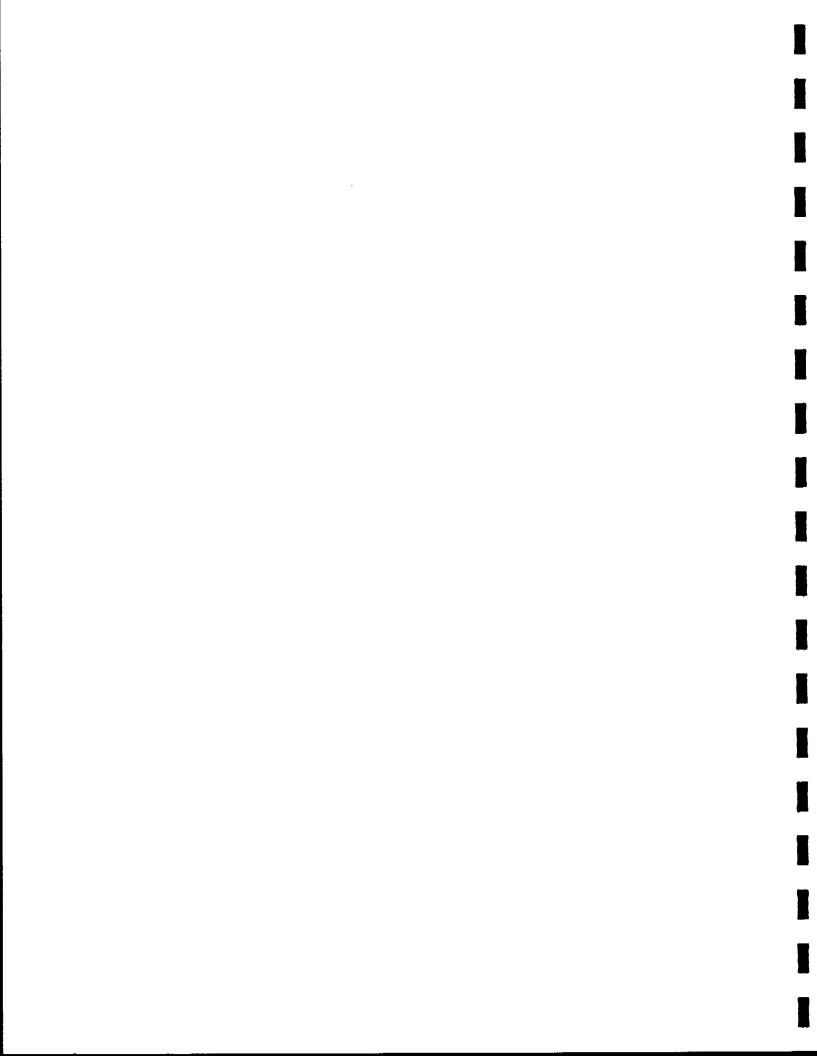
The next meeting of MIDAC will be held on <u>January 6, 2000</u> (the first Thursday) at Waterford Town Hall. Members requested a tour of Millstone 1 to take place on January 6th prior to the meeting, and asked to receive a site plan beforehand.

The meeting was adjourned at ~ 9.35 p.m.

Respectfully submitted,

Terry Concannon, ad hoc secretary.

APPENDIX 7





Rope Ferry Rd. (Route 156), Waterford, CT 06385

Millstone Nuclear Power Station Northeast Nuclear Energy Company P.O. Box 128 Waterford, CT 06385-0128 (860) 440-0414 Fax (860) 440-2105

Leon J. Olivier Senior Vice President Chief Nuclear Officer Millstone

January 22, 1999

Mr. John Markowicz Nuclear Energy Advisory Council 9 Susan Terrace Waterford, CT 06385

Dear Mr. Markowicz,

I would like to take this opportunity to express my thanks to you for participating in the January 19 NRC Commission Briefing in Rockville, MD. I know that your schedule is very demanding and I appreciate you taking the time on behalf of the Nuclear Energy Advisory Council to attend this important meeting and to share with the Commissioners an independent, outside perspective of our performance. Your diligence in monitoring the issues affecting Millstone is very apparent.

I look forward to seeing you at the upcoming Community Breakfast Meeting at the Groton Inn & Suites on February 4. Possibly we could exchange a few words at the breakfast if your schedule permits.

Again, thank you for representing the Council at the Briefing.

Sincerely,

Leon J. Olivier

CC:

T. Concannon E. Woollacott



State of Connecticut NUCLEAR ENERGY ADVISORY COUNCIL

TERRY CONCANNON Co-Chair EVAN WOOLLACOTT Co-Chair Room 4100 Legislative Office Building Capitol Avenue Hartford, CT 06106

February 18, 1999

Mr. Trevor Davis, Jr. 243 Injun Hollow Road Haddam Neck, CT 06424

Dear Trevor:

On behalf of the Nuclear Energy Advisory Council, we express our sincere regrets on your resignation from our group. Your calm questioning and constant concern for the public interest truly reflected the intent of our charter.

We appreciate your specific aid in monitoring the decommissioning of Connecticut Yankee and in preparing a good summary for our 1998 annual report to the Legislature.

Your wise counsel will be missed.

For the Nuclear Energy Advisory Council

Very Concause

Terry Concannon Co-Chair

EWW/sv

Evan W. Woollacott Co-Chair

E W Walk



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555

March 16, 1999

Ms. Terry Concannon, Co-Chair Nuclear Energy Advisory Council 41 South Buckboard Lane Marlborough, CT 06070-1830

Dear Ms. Concannon:

It was a pleasure to meet with you and other representatives of the Nuclear Energy Advisory Council during our visit to Millstone on February 12, 1999. We appreciate you taking time out of your busy schedule to share your valuable insights about Millstone and the concerns of the community. While we hope our meeting restored some of your confidence in the NRC's commitment to protect public health and safety and the environment, we recognize that public confidence can only be earned by demonstrating this commitment in our future regulatory actions at Millstone.

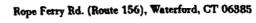
As you likely know by now, on March 11, 1999, the NRC lifted the Order on Millstone requiring independent, third-party oversight of the plant's Employee Concerns Program (ECP) and Safety Conscious Work Environment (SCWE). This decision in no way reflects a reduction in our commitment to ensuring that Northeast Nuclear Energy Company (NNECO) maintains a healthy work environment at Millstone. The Commission has directed the staff to continue to be vigilant in its efforts to monitor NNECO's performance in these areas so that any decline in performance is detected in its early stages. The Commission also directed the staff to perform periodic assessments until the ongoing organizational changes, the pending restart of Unit 2, and continuing efforts to further improve the ECP/SCWE at Millstone have been successfully completed. In a letter to the NRC dated March 2, 1999, NNECO reaffirmed its intention to retain Little Harbor Consultants to provide independent assessments of the SCWE as well as other services in this area. The Commission will closely monitor the results of these assessments.

Regarding the restart of Unit 2, we assure you the Commission will not allow the unit to restart until it is convinced that the plant is safe to operate. A Commission meeting is planned for April 14, 1999, to discuss the Independent Corrective Action Verification Program (ICAVP) and other issues pertaining to the restart of Unit 2.

Again, thank you for meeting with us at Millstone.

Sincerely,

Greta Joy Dicus Commissioner Jeffrey S. Merrifield Commissioner





June 24, 1999

Ms. Terry Concannon, Co-Chairman Nuclear Energy Advisory Council Legislative Office Building Room 4100 Hartford, CT 06106-1591

Mr. Evan W. Woollacott, Co-Chairman Nuclear Energy Advisory Council 128 Terry's Plain Road Simsbury, CT. 06070

Dear Ms. Concannon and Mr. Woollacott,

Millsione Nuclear Power Station Northeast Nuclear Energy Company P.O. Box 128 Waterford, CT 06385-0128 (860) 440-0414 Fax (860) 440-2105

Leon J. Olivier Senior Vice President Chief Nuclear Officer Millstone

At the June 15, 1999 Millstone Advisory Committee (MAC) meeting, Decommissioning of Unit 1 was discussed. During this discussion, Tony Sheridan and Frank Rothen described recent discussions held at a Waterford Town Meeting and at the last Nuclear Energy Advisory Council meeting.

Our understanding is that the NEAC plans to establish a subcommittee to fulfill the decommissioning monitoring function. The members of MAC concur with that decision and offer their endorsement and support. Specifically, Mr. Paul Blanch has offered to serve on a decommissioning sub-committee, consistent with the discussion between Ms. Concannon and Richard Kacich.

Millstone and Entergy look forward to working with the sub-committee and we see partnership with them as an opportunity to demonstrate our commitment to be publicly accountable for safe operations at Millstone.

To that end, we encourage NEAC in chartering the subcommittee to consider:

- obtaining broad representation in participant make-up to ensure all stakeholders have a voice (e.g., environmentalist, academician, governmental, and special interest groups)
- using a wide array of vehicles including the web to ensure that information is available to the public in a timely, comprehensive manner

I will be attending the July 15th NEAC meeting and to the extent the agenda allows, would enjoy discussing this issue with council members.

If we may be of assistance, or answer any questions you may have, please contact Mr. William Temple at (860) 437-5904.

Very truly yours,

L. J. Olivie

CC:

L. G. Temple (Entergy) 086299 REV. 10-98



State of Connecticut NUCLEAR ENERGY ADVISORY COUNCIL

TERRY CONCANNON Co-Chair EVAN WOOLLACOTT Co-Chair Room 4100 Legislative Office Building Capitol Avenue Hartford, CT 06106

August 30, 1999

To the Editor:

At their meeting on July 15, 1999, members of the Nuclear Energy Advisory Council (NEAC) voted to establish a subcommittee for the purpose of monitoring decommissioning activities at Northeast Utilities Millstone Unit 1, located in Waterford, Connecticut. NEAC was created by the State Legislature in 1996 and is charged with the oversight of issues relating to public health and safety in the areas where Connecticut's nuclear power plants are located. The subcommittee will be dedicated to the close monitoring of the decommissioning activities at Millstone Unit 1.

The decommissioning of Millstone Unit I will be an unprecedented event for the shoreline of southeastern Connecticut. There can be little doubt that the decommissioning process will generate questions and concerns regarding a variety of environmental, health, and safety issues. Acting as a conduit for public, government and utility interaction, the goal of the subcommittee will be to enhance open communication, raise public involvement and heighten public education and awareness with regard to issues surrounding the decommissioning.

Membership on the subcommittee is now being sought from individuals and organizations that represent a broad range of community interests within jurisdictions surrounding the Millstone site (principally, Waterford, New London, East Lyme/Niantic), including representatives from municipal governments, environmental groups, health organizations, and academic and business communities. To date, there has been no response from New London residents and their presence on the subcommittee is important. It is hoped that the names of all who are interested in serving on this subcommittee will be received in time for prospective members to accept an invitation to the September 16, 1999 tour of the Connecticut Yankee (CY) Power Plant in Haddam Neck, which is also being decommissioned. The next regular meeting of NEAC is scheduled for that date, immediately following the CY tour.

Interested persons may call Pearl Rathbun at East Lyme Emergency Services, (860) 739-2420; Terry Concannon, NEAC Co-Chair, (860) 295-1117; or Tony Sheridan, Waterford First Selectman, (860) 444-5834.

For the Nuclear Energy Advisory Council

Terry Concannon Co-Chair

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Evan W. Woollacott Co-Chair

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State of Connecticut NUCLEAR ENERGY ADVISORY COUNCIL

TERRY CONCANNON Co-Chair EVAN WOOLLACOTT Co-Chair Room 4100 Legislative Office Building Capitol Avenue Hartford, CT 06106

November 5, 1999

Dear

Pursuant to the July 15th vote of the Nuclear Energy Advisory Council (NEAC), which established a subcommittee for the purpose of monitoring decommissioning activities at Millstone Unit 1, it is our pleasure to appoint you a member of the Millstone Decommissioning Subcommittee. Your term is effective immediately and your length of service shall be at the discretion of NEAC and/or your desire to serve.

We welcome your interest in volunteering to participate and are confident that your experience and knowledge will be of great value to the committee.

The subcommittee will be co-chaired by Pearl Rathbun from Niantic and Representative Kevin Ryan from Oakdale. A copy of its purpose is attached for your information.

Your willingness to make this commitment to represent the public residing in the environments of the Millstone Unit 1 nuclear power plant during its decommissioning is deeply appreciated.

For the Nuclear Energy Advisory Council

Co-Chair Terry Concannon

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Co-Chair Evan W. Woollacott

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TC/sv



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555

December 14, 1999

Ms. Terry Concannon, Co-Chair Mr. Evan Woollacott, Co-Chair Nuclear Energy Advisory Committee 41 South Buckboard Lane Marlborough, CT 06447

Dear Terry and Evan:

It was a pleasure to meet you and other members of your committee during my visit to the Haddam Neck site. I appreciate you taking time out of your busy schedules to visit with me and discuss areas of mutual interest concerning the decommissioning of Haddam Neck.

Your committee performs an important function by monitoring the site and advising the licensee and the State legislature of citizen concerns.

Again, it was great spending time with you.

With best regards,

Jeffrey S. Merrifield



STATE OF CONNECTICUT OFFICE OF POLICY AND MANAGEMENT

December 31, 1999

Ms. Terry Concannon, Co-Chair Nuclear Advisory Council 41 South Buckboard Lane Marlborough, CT 06447-1015

Dear Ms. Concannon:

This is to advise you that Kevin T. A. McCarthy has been hired for one year as a part-time nuclear energy consultant to the Office of Policy and Management, effective September 2, 1999.

Mr. McCarthy has been hired to keep OPM informed on the state of the nuclear industry in Connecticut on such matters as Y2K preparedness, nuclear plant decommissioning, and compliance with safety regulations. As you know, Mr. McCarthy had a distinguished career as a nuclear expert with the Connecticut Department of Environmental Protection. He was selected for the job following a standard, advertised, RFP process.

The RFP contained the following section describing the prospective duties:

Advisor's Responsibilities

The principal responsibilities for the Nuclear Policy Advisor are as follows.

- 1. Monitor all aspects of nuclear energy use in Connecticut, including but not limited to:
- Use of nuclear energy in the electric power industry, including storage and shipment;
- Medical uses of nuclear energy, and the proper disposal of wastes; and
- Environmental health impacts of nuclear energy on air and water quality, and their impacts on public health.
- Study emerging public policy issues related to nuclear energy, and evaluate appropriate roles
 and responsibilities for state governmental involvement and intervention. The contractor should
 address the costs, benefits and risks of alternative strategies.

In 1999, Mr. McCarthy presented OPM with a status report on Y2K preparedness, and oral reports on nuclear plant decommissioning efforts under way in Connecticut.

If you have specific questions about the work being performed under this contract, please contact Bill Cox of my staff at 860/4/8-6238.

Sincerely,

Allan Johanson Assistant Director

Cc: Kevin T. A. McCarthy