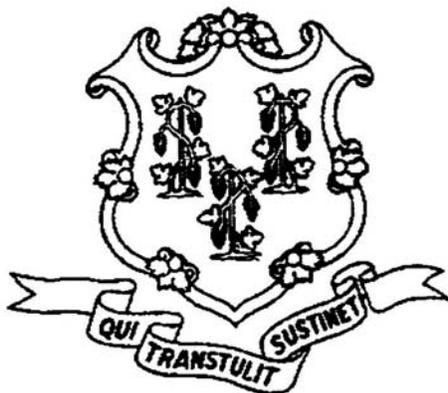


STATE OF CONNECTICUT



THE NUCLEAR ENERGY ADVISORY COUNCIL REPORT

2002

Established Pursuant to Public Act 96-245

**Evan W. Woollacott, Co-Chairperson
John Markowicz, Co-Chairperson**

February 21, 2003

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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, and
5. Review the current status of the plants with the Nuclear Regulatory Commission.

COUNCIL MEMBERS

The Council has thirteen (13) members appointed by Governor, legislative leadership, and the executive bodies in the towns in or near which the state's nuclear power plants are located (Appendix 1).

EXECUTIVE SUMMARY

This is the seventh annual report presented by the Nuclear Energy Advisory Council (NEAC). During Calendar Year 2002, the NEAC met quarterly and received reports from representatives of the Nuclear Regulatory Commission (NRC), Dominion Nuclear Connecticut, and the State of Connecticut Office of Policy and Management (Appendix 2). Routine NRC Millstone Power Station inspection and performance assessment reports were also received and reviewed. Only baseline inspections were performed since Millstone Units 2 and 3 plant performance (Action Matrix and Performance Indicators) was classified as "GREEN", meaning inspection findings were classified as having low safety significance and requiring no additional NRC oversight. It should be noted that in February 2002 the NRC issued an order requiring Dominion Nuclear Connecticut to take additional action to address the generalized high-level threat environment, and the Millstone licensee has reported compliance with this order. NEAC member John W. (Bill) Sheehan continued to conduct periodic monitors of Millstone operations (Appendix 3) until June 2002 when the NEAC voted to suspend this activity. Several NEAC members served on the Potassium Iodide (KI) Work Group that planned and implemented the distribution of four KI tablets to 68,000 households within the Millstone Emergency Planning Zone (EPZ). One NEAC member, Dr. James R. Sherrard, visited the Yucca Mountain Federal Repository and Nevada Test Site in Nevada. The Millstone 1 Decommissioning Advisory Committee (MIDAC) met in May 2002 (Appendix 4 and Appendix 5).

COUNCIL ACTIVITIES IN 2002

MEETINGS:

As required by PA 96-245, the NEAC held four regular public meetings at Waterford Town Hall, Waterford Connecticut to provide a venue for discussion of issues relating to the safe operation of the state's nuclear power plants. Meeting Minutes are included in Appendix 2. A summary of the meetings follows:

March 21, 2002: This was a joint meeting with the NRC Region I and focused on the Annual Assessment Report of Millstone Power Station Units 2 and 3 for the last three calendar quarters of CY 2001. It was reported that overall these two units were operated in a manner that preserved public health and safety and fully met NRC cornerstone objectives. Accordingly, the NRC plans to conduct only baseline inspections at the facility through March 31, 2003. The Chief, Decommissioning and Laboratory Branch also reported that the Millstone 1 Missing Spent Fuel Pool Investigation had been completed. A report had been issued on February 27, 2002 and it contained two apparent violations regarding the failure to adequately account for special nuclear material and the failure to make timely reports of missing nuclear material.

June 20, 2002: Dominion Nuclear Connecticut representatives provided an update on activities at the Millstone Power Plant including outage and operational performance. It was reported that no deficiencies or significant issues emerged from the Emergency Preparedness Exercise conducted on May 1, 2002. Information was also provided

regarding enhanced security measures implemented at the site as well the status of a spent fuel storage study that was undertaken for Millstone Units 2 and 3. NEAC members also reported on a visit to the Yucca Mountain Federal Repository (Dr. James R. Sherrard) and the activities of the Potassium iodide (KI) Work Group and Millstone 1 Decommissioning Advisory Committee (Pearl Rathbun). John W. (Bill) Sheehan made a final Millstone Monitor Report, and was unanimously commended by the Council for his dedication to this program.

September 19, 2002: Representatives from the State of Connecticut Office of Policy and Management provided a comprehensive briefing on the status of a program to distribute Potassium Iodide (KI) tablets throughout the Millstone Emergency Planning Zone (EPZ). Plan call for mailing four KI pills with instructions to 67,000 households within this area. Subsequently, tablets will be distributed to schools, institutions, companies, and the five host communities.

December 19, 2002: The NEAC met to review and approve the CY2002 Annual Report and discuss the CY2003 meeting schedule.

REPORT ON ISSUES

MILLSTONE OPERATIONS

As reported by the Nuclear Regulatory Commission in regular inspection reports and at a Joint Public Meeting (Appendix2), Millstone Units 2 and 3 have continued to be operated in a manner that preserves public health and safety. No findings of significance were documented on routine inspections conducted through April 2002 and the subsequent Emergency Preparedness Exercise and the Triennial Fire Protection Inspection. One issue of very low safety significance (GREEN) was noted on Unit 2 in May/June 2002. Inspections conducted between June 30, 2002 and September 28, 2002 resulted in the identification of three Unit 2 issues and two Unit 3 issues, all of very low safety significance (GREEN).

MILLSTONE MONITOR

A member of NEAC, John W. (Bill) Sheehan monitored the control room watchstanders in Millstone 2 and Millstone 3 through June 2002 with emphasis on items relating to Public Health and Safety as follows:

- a. Nine monitors were conducted. Most were in Millstone 2 due to the refueling outage but there were three monitors of Millstone 3. The observation program was ended by NEAC in June 2002. The council determined that the visits were no longer necessary since the Millstone Station was well beyond the recovery efforts of the late 1990s.
- b. Each visit took an hour or more. Besides observing the conduct of

watchstanders, the monitor reviewed pertinent logs, turnover check offs, outstanding Condition Reports (CR), status sheets and procedures in use.

c. The six month's observations may be summarized as follows:

1. Watchstanders performance continued to improve. There is a vigorous training program to permit individual development and advancement.
2. Conduct of refueling outages was much improved. The planning efforts and cross plant training has paid off in more efficient outages.
3. Security at the Station is "tight" due to the events of 9/11/2001.
4. Three monitor visits were "no comment" visits. This was one of the key reasons for ending the monitor visits.

d. Although there is always room for improvement, the Operators showed real professional growth during the first half of 2002.

NUCLEAR EMERGENCY PREPAREDNESS

January 19, 2001, the NRC amended its emergency planning regulations to require States or Tribes to consider including potassium iodide (KI) as a protective measure for the general public within the 10-mile emergency planning zone to supplement evacuation and sheltering in the unlikely event of a nuclear power plant accident. In December 2001, the Food and Drug Administration issued its new guidance on the use of potassium iodide (KI) to reduce the risk of thyroid cancer in emergencies involving the release of radioactive iodine into the environment. Then in February 2002 the NRC offered to provide an initial supply of KI for a State, or Tribe, that chose to incorporate KI for the general public in their emergency plans. However, the Commission made no

commitment to fund the replenishment of these stockpiles. Replenishment is necessary to replace out-of-date KI pills. The Commission also stated that it believes that its final rule and commitment to provide funding for the purchase of a State's supply of KI strikes a proper balance between encouraging (but not requiring) the offsite authorities to take advantage of the benefits of KI and acknowledging the important role of States and local governments in matters of emergency planning.

In response to a previous NEAC recommendation, the State of Connecticut formed a state interagency working group in December 1998 to re-assess the state's policy on this issue. With Governor Rowland's acceptance of the initial supply of KI for Connecticut from the NRC, the state interagency working group was expanded to include additional public and private stakeholders. The NEAC co-chairs, John Markowicz and Evan Woollacott, were invited to represent the public's interest in the review and possible development of a new state policy on KI. Dr. Edward Wilds continued to represent the DEP. This working group and its subcommittees met extensively during 2002 and developed a comprehensive distribution program for the Millstone Point Emergency Planning Zone. This work culminated in the mailing of 4 KI tablets to the 68,000 households in the Emergency Planning Zone on October 15, 2002. At the present time the working group is concentrating on the development of a program for the school systems and business in the Emergency Planning Zone.

DECOMMISSIONING

MILLSTONE 1

In July of 1998, it was announced that Millstone Unit 1 would undergo decommissioning. A modified SAFSTOR decommissioning option was selected and remains in effect. This involves some decontamination and dismantlement early in the process. After these initial activities are complete, the unit is then placed in safe storage until the other two units at the Millstone site undergo decommissioning. After reviewing Unit 1 requirements, in conjunction with the operational and outage requirements of Millstone Units 2 and 3, it was strategically decided to place Unit 1 in 'Cold and Dark' storage in April 2001. This allowed the safe and efficient separation (from Units 2 and 3) projects as well as the decommissioning projects. All separation projects were completed by April 1, 2001.

The two spent fuel pins unaccounted for during the 2000 inventory audit of the spent fuel pool for the sale of the Millstone site to Dominion remain unaccounted for. The Northeast Nuclear Energy Company (NNECO) sent a letter to the NRC on March 30, 2001 stating that the investigation determined that the pins were missing. The NRC investigation into this accountability was completed in early 2002. It agreed with the NNECO investigation concluding that the two pins could have been moved to another location in the pool or shipped off site to a low-level radioactive waste storage site.

CONNECTICUT YANKEE

Dismantlement activities continue at Connecticut Yankee (CY), with the project nearing 65% completion and scheduled to be finished in 2004. Bechtel Power, the

Decommissioning Operations Contractor, has focused most of its activities this year on the construction of an Independent Spent Fuel Storage Facility for dry cast storage of the spent fuel with the settlement of the zoning issues with the Town of Haddam. This proposal calls for the spent fuel, presently stored in the spent fuel pool, to be stored in forty-three casks (16 feet tall x 10 feet in diameter) on a concrete pad.

During 2002, all remaining major components in the Primary Auxiliary Building were removed and shipped offsite. Planning on the removal of the pressure vessel continues. Cleanup of the reactor cavity also continues in preparation for water drain down and reactor pressure vessel removal, anticipated in mid-2003. Interior demolition of the Turbine Building is complete. Demolition of three out of eight water storage tanks has been completed. The Yard Crane has been modified and now meets federal requirements for cask handling when fuel transfer operations begin next year. Earlier this year, the main transformer was purchased, dismantled, and transported by barge to its new owner, a southern utility.

Forty-three vertical liners for dry fuel storage containers were fabricated onsite this year. Improvements to the road leading to the new dry cask fuel storage site are nearing completion. Prior to construction of the reinforced concrete fuel storage pad this year, the State Historical Preservation Office conducted a surface and subsurface archaeological investigation of the pad area and concluded that no archaeological resources existed within the proposed fuel storage area. Completion of the dry fuel storage facility is scheduled for the end of 2002 or early 2003. Fuel transfer is expected to

begin in the second quarter of 2003. The site has surpassed 885 days without a lost time accident, representing more than 1,392, 804 safe work-hours.

A small number of plaintiffs have filed lawsuits challenging the agreement between CY and the Town of Haddam regarding fuel storage. Pending lawsuits and appeals will take at least a year to be heard. None of the challenges have impacted the progress of fuel storage facility construction and fuel transfer preparation.

A revised License Termination Plan, submitted to the Nuclear Regulatory Commission in August, was approved on November 25, 2002. The NRC Staff Safety Evaluation Report was also approved in November 2002. The NRC Atomic Safety and Licensing Board will conduct public hearings on two LTP contentions submitted by the Citizens Awareness Network. One claims that CY's methodologies and equipment for detecting hard-to-detect radionuclides and hot particles are not adequate. The second contention claims that the computer model CY will use to determine radiation dose (after cleanup) is not adequate because it uses an adult male for the model.

CY continues to work with the Conservation Law Foundation to develop a plan for potential donation of a large portion of the CY site for open space conservation. The property has been surveyed and an ecological assessment and environmental management plan report has been completed. An archaeological survey of the land being considered for donation is underway. Following an outreach effort to interested stakeholders, it is

planning to establish a land donation advisory board to review data and assess potential recipients and land use options.

Connecticut Yankee remains in a heightened mode of security and is continually monitoring and evaluating its security program in concert with federal, state, and local authorities, including the NRC, FBI, Connecticut State Police and the State of Connecticut. The NRC has reviewed CY's security preparations and confirmed their implementation in a confirmatory action letter. All decommissioning plants received similar reviews and confirmatory action letters.

Discussions of the possible development of a gas-fired power plant at the CY site have terminated. There are currently no proposals for future development of the site.

CY provides information to the public through daily publications of "CY Today", its website www.connyankee.com, monthly meetings of the Community Decommissioning Advisory Committee (CDAC), and activities with the Middlesex Chamber of Commerce.

HIGH LEVEL NUCLEAR WASTE

NEAC continued its quest to obtain a permanent solution for spent nuclear fuel rods disposal. One NEAC member, Dr. James R. Sherrard, visited the Federal Repository at Yucca Mountain, Nevada, and NEAC sent correspondence (Appendix 4) to its federal senators encouraging the prompt activation of this site. In view of the fact that there are now two nuclear plants currently being decommissioned in Connecticut, failure to establish a permanent repository could adversely affect the State's economy and

homeland security. This year significant progress was made toward a permanent solution as outlined:

- February 14, 2002 - U.S. Department of Energy Secretary Abraham submitted a recommendation and comprehensive basis for the Yucca Mountain site recommendation to President Bush.
- February 15, 2002 – President Bush approved the recommendation and submitted it to the U.S. Congress.
- April 8, 2002 – Nevada Governor Guinn vetoed President Bush’s recommendation of Yucca Mountain.
- Congress passed a resolution of siting approval to override Governor Guinn’s veto. U.S. House of Representatives passed the resolution in May, and the U.S. Senate passed the resolution in July.
- July 23, 2002 – President Bush signed Congressionally approved Joint Resolution 87 allowing the U.S. Department of Energy to move forward to develop a license application for Yucca Mountain for submittal to the U.S. Nuclear Regulatory Commission.

The U.S. Department of Energy’s program schedule for Yucca Mountain is:

- License Application in 2004
- U.S. Nuclear Regulatory Commission Construction Authorization and begin construction in 2007.
- U.S. Nuclear Regulatory Commission License Approval and begin waste acceptance in 2010.
- NEAC will continue to follow the progress of this issue in the 2003.

RECOMMENDATIONS

STATE

1. Office of Emergency Management (OEM) should continue to address any emergency preparedness issues at Connecticut's nuclear sites.
2. Department of Environmental Protection (DEP) should continue to address any security issues at Connecticut's nuclear sites.
3. The governor, legislature and NEAC should continue to insist that the NRC continue vigilant oversight during the decommissioning of Connecticut Yankee and Millstone 1 and for as long as high level nuclear waste remains on site.

NEAC

1. Continue to monitor the stability of the Employee Concern Program and Safety Conscious Work Environment at Millstone Power Station.
2. Monitor the completion of the Potassium Iodide (KI) distribution program and any emerging issues.
3. Continue to monitor operations and decommissioning activities at Millstone Power Station and Connecticut Yankee.
4. Continue to encourage the prompt activation of the Permanent Nuclear Waste Storage Repository at Yucca Mountain and the safe transfer of nuclear waste from Connecticut to this site.
5. Continue to monitor the implementation of enhanced security measures at nuclear sites within the State of Connecticut.

APPENDIX 1

NUCLEAR ENERGY ADVISORY COUNCIL MEMBERSHIP

John Markowicz (Co-Chair) Waterford: BS Engineering, Naval Academy.
Economic director, former chief engineer nuclear powered submarine.

Evan W. Woollacott (Co-Chair) Simsbury: MBA, Wharton School, Former
Vice President, Combustion Engineering, and Vice Chair, CT DPUC.

Majorie W. DeBold Haddam: BA Psychology and Child Development, UC Berkeley.
Retired teacher, former First Selectman of Haddam.

Gregg W. Dixon PhD Niantic: Mechanical Engineering (Nuclear) Stanford University.
Mechanical Engineering Section Chief, US Coast Guard Academy.

John Helm, Sr. Groton: MS Mechanical Engineering, Columbia. Consultant, former
experience includes Nuclear Submarine development.

Mark Holloway Waterford: BS Interdisciplinary Sciences, Charter Oak. Task Manager
and analyst in nuclear submarine development.

Robert J. Klancko Woodbridge: BS Chemical Engineering, UConn. Engineering
Consultant, member, State Emergency Response Board.

Pearl Rathbun Niantic: BA Economics. Three Rivers C-TC. Administrative Assistant,
Office of Emergency Management & Fire Marshal's Bureau, East Lyme.

Rep. Kevin Ryan Oakdale: OD, Pennsylvania College of Optometry. Legislator,
Adjunct Faculty, University of New Haven.

John (Bill) Sheehan Waterford: MBA, Rensselaer Polytechnic. Director, Management
Information Systems, former Captain, Nuclear powered submarine.

James Sherrard, PhD Mystic: USCG Academy, Nuc. & Mech. Eng. MIT/UConn.
Chairman, Nuclear Engineering Technology Department, TRCTC.

William J. Temple Waterford: Manager, Executive Support, Dominion Nuclear
Connecticut. Dominion representative on the council until February 2002.

Edward L. Wilds, Jr. Griswold: PhD Physics, UConn. Director, Division of
Radiation, Department of Environmental Protection.

Awaiting Appointment

Paul A. Blasioli Waterford: Manager, Emergency Planning, Dominion Nuclear
Connecticut.

APPENDIX 2

**Nuclear Energy Advisory Council (NEAC) Meeting
Waterford Town Hall
Waterford, Connecticut
March 21, 2002**

April 23, 2002

Mr. Evan Woollacott, Co-Chair
Mr. John Markowicz, Co-Chair
Mr. Bill Sheehan
Mr. John Helm
Dr. Jim Sherrard
Ms. Pearl Rathbun
Mr. Paul Blasioli
Mr. Kevin Ryan
Dr. Edward Wilds, representing DEP, Commissioner Arthur J. Rocque, Jr.

1. Call to Order

Co-Chair Woollacott called the meeting to order at 7:00 PM, at the Waterford Town Hall, Waterford, Connecticut.

2. Approval of November 29, 2001 NEAC Meeting Minutes

Co-Chair Woollacott asked for a motion to accept the November 29, 2001 NEAC minutes. The motion was made by Mr. Sheehan, seconded by Ms. Rathbun, all voted in favor as recorded.

3a. Opening Comments by NEAC Co-Chair Evan Woollacott, and NRC Co-Chair Randy Blough, NRC Region I, Director, Division of Reactor Projects

Mr. Randy Blough introduced the staff from NRC and talked briefly on the topics of discussion, which were the safety performance of Millstone Units II and III and the inspection findings of the missing fuel pins. A copy of the report was given to NEAC when it was completed. Co-Chair Woollacott introduced a new member of NEAC, Mr. Paul Blasioli, representing Dominion and is Mr. Bill Temple's replacement.

3b. NRC Oversight Program: Curt Cowgill, NRC Region I, Chief, Reactor Projects Branch 6.

Mr. Cowgill made the presentation on Unit III safety performance. He also commented about the extra security that was brought in since the September 11, 2001 incident. Mr. Blough gave information on additional security measures taken after the incident.

Mr. Cowgill reviewed the key elements of the NRC Reactor Oversight Process. He noted that there are two ways to monitor the seven Safety Cornerstones, one is performance indicators, and the other is baseline inspection. Both reported that both Millstone units are now in the Licensee Response column of the Action Matrix; and therefore require only normal Baseline Inspections.

Mr. Tony Cerne discussed the annual assessment of Unit III. He said it was operating safely, fully met all cornerstone objectives, all Performance Indicators are Green (requiring no additional NRC oversight), and was in the Licensee Response Band of the Action Matrix, which allows the licensee time to respond to their own problems.

Mr. Blough: Commented about the web site on the slides.
www.nrc.gov/NRR/oversight/assess/mill3/mill3_chart.html

Conclusions: Unit III has performed well while it is in operation. They put more effort into their controls.

Ms. Beth Siemel made the presentation on Unit II performance. She indicated that Unit II has operated safely, fully met all of their cornerstone objectives, all Performance Indicators are Green (at the end of the assessment period), all required actions are completed, the licensee needs to maintain performance for an extended period of time, they are in the Licensee Response Band of the Action Matrix and they need to continue to focus on human performance and work control planning.

4. Questions/Comments from NEAC members

Co-Chair Markowicz asked about the recent NRC order regarding plant security and the timeline for response. *Mr. Cowgill* said all plants were given the same order, Millstone has responded and that implementation actions must be completed by August 31, 2002.

Co-Chair Woollacott: One of the responsibilities of NEAC is to update the public. Has the enhanced public confidence been expanded. *Mr. Cowgill* responded that they have expanded; a web site is now available, and that they are improving on public communications.

Co-Chair Woollacott asked if the NRC received reactions from the public. *Mr. Cowgill* replied that responses have been good and the public understands their program better. Feedback forms are handed out at public meetings and this has been working well.

Co-Chair Woollacott asked for a definition of multiple/repetitive degraded cornerstones. *Mr. Cowgill* responded that if a plant has either more than one degraded cornerstone or has had a degraded cornerstone for more than 4 quarters in one year, it is a multiple degraded cornerstone. If a plant has problems in multiple areas that degrade the safety performance or a plant has problems in one area that degrade safety performance and those problems are not corrected and remain for a lengthy period of time, you can have a repetitive degraded cornerstone. Mr. Blough mentioned that Indian Point has revealed a number of problems. Repetitive is either you can't fix your problems or the problems occur in the same area and it is evident that you can't fix the individual problem without fixing the problem in the whole area.

Co-Chair Woollacott asked if the NRC conducts a review of what Dominion is going to do. *Mr. Cerne* said if it is Dominion's routine surveillance plan, or how they monitor their equipment and test their equipment, that is done by a spot check. The surveillance planning is dictated by their technical specifications. It is part of their license. As far as their oversight, that may be more of a spot check. *Co-Chair Woollacott*: Are their inspections reported to the NRC? *Mr. Cerne*: Their inspection process is either surveillance which is dictated by the tech specs we sample or part of their quality assurance program which is an independent part of their own company with their own inspectors. We do not approve that plan; we approve their quality assurance plan. *Co-Chair Woollacott* asked if the NRC monitor what they do and what they have to do? *Mr. Cerne*: Yes, it is part of their license.

Mr. Sheehan: The surveillances are not inspections they are preventative maintenance. The question is whether the NRC looks at what the licensee's oversight approach will be. What involvement does the NRC have in determining the adequacy of the oversight program. *Mr. Cerne*: We do not overview or globally look at the company's nuclear oversight program.

Mr. Blasioli: We have a team that comes in and assesses our program. It is a group of independent people that look at oversight programs.

Ms. Rathbun: For special inspections, do you involve a regional specialist? *Mr. Cerne*: A regional inspector is used. We tell him what to inspect. *Mr. Cowgill*: We pick a number of samples. *Mr. Cerne*: The periodic review will be done in April to look at their response for violations and for all their corrective actions.

Co-Chair Woollacott asked if the problems with Unit II were operator errors. *Ms. Siemel* said some were equipment alignment; some were maintenance.

Co-Chair Markowicz asked how the human performance is being looked at. *Mr. Cerne* said this not been an issue at Millstone and we have not seen safety conscious work environment problems. He mentioned that there were allegations in the mid-90's. The recent analysis at Millstone, the safety conscious work environment has proceeded to remain positive.

Dr. Sherrard: With the enhanced security, has there been lessening of the number of workers to come in. *Mr. Blasioli* said they made changes to the background checks but it has not diminished his ability to hire contractors on site.

Dr. Sherrard asked if the NRC has been in contact with Canadian counterparts. *Mr. Cowgill* said they have been sharing information with them.

5. Public Comment and Question Period

Mr. Besade asked for clarification that the NRC will not listen to any problems that are more than 5 years old and asked about the turbine building. *Mr. Cerne* said he does not agree. The turbine building is not a safety related structure. The health and safety of the public would be protected because of the design of the plant.

6. NRC Special Inspection Report - Missing Millstone I Spent Fuel Pins, Ron Bellamy, NRC, Chief, Decommissioning and Laboratory Branch.

Mr. Bellamy and Mr. Todd Jackson discussed the missing spent fuel pins inspection report that was prepared on February 27, 2002. They have not yet received Dominion's written response on the two violations. The response is due March 27, 2002. Once they get their response, they will consider it and issue proposed enforcement action. Dominion will either accept that action or contest. If they accept, the action will become final and we will follow their corrective actions in future inspections. If they contest, the NRC will either issue action as proposed or amend the action. They will then call the enforcement action final and go from there. They have not yet taken any formal action to date, and are willing to again brief NEAC when action is completed.

7. Questions/Comments from NEAC members

Co-Chair Woollacott: When this happened, NU was in charge of the operations. Is the violation against NU? *Mr. Jackson* responded the current inspection report is addressed to Dominion.

Co-Chair Markowicz: At the briefing in January, it was noted that there are existing protocols regarding their agreement between NU and Dominion. He asked about the update of the Dresden missing fuel issue. *Mr. Bellamy:* The issue at Dresden has been resolved and the items were pieces of irradiated clad; there were no pieces of missing fuel.

Co-Chair Markowicz: What was found on the bottom of the fuel pool. *Mr. Jackson:* A lot of debris and sediment was found. The licensee was going through the debris.

8. Public Comment and Question Period

Mr. Besade asked if South Carolina is accepting any more waste from Millstone. *Mr. Bellamy* said that South Carolina told Millstone that until they resolve the location of the missing fuel rods, they are not authorized to accept any more waste from Millstone.

9. NEAC Business Meeting: General

Co-Chair Woollacott will add Potassium Iodide as an agenda topic for the next meeting. Co-Chair Markowicz mentioned that he attended a kickoff meeting with OPM and various other state agencies, communities around Millstone, pharmacists, and local representatives regarding a workgroup to address the distribution of 450,000 KI pills. NRC paid for the initial supply. Dr. Wilds stated that the general public will be predistributed only one pill per person. Remaining pills will be held in reserve. Dr. Wilds said they should have everything finalized by the end of the calendar year.

Mr. Besade was concerned about the dosage of pills for children. Dr. Wilds said the state will be looking into the proper dosage for children. Dr. Wilds said the focus of the state would be the primary purpose will be evacuation or sheltering and KI will be used as a supplement.

9a. NEAC Business Meeting: Millstone Monitor

Mr. Sheehan read and explained his monitoring reports (handouts)

9b. NEAC Business Meeting: Annual Report

Co-Chair Woollacott: The Annual Report will be finalized now that the November 29, 2001 meeting notes have been approved.

9c. NEAC Business Meeting: Future Meeting Schedule

Co-Chair Woollacott and Co-Chair Markowicz suggested having the next meeting with Dominion regarding their process for performance.

10. Adjournment

Motion by Mr. Sheehan, seconded by Dr. Sherrard; meeting adjourned at 9:30 PM

Next meeting: Waterford Town Hall, June 20, 2002

**Nuclear Energy Advisory Council (NEAC) Meeting
Waterford Town Hall
Waterford, Connecticut
June 20, 2002**

July 10, 2002

Mr. Evan Woollacott, Co-Chair
Mr. John Markowicz, Co-Chair
Mr. Bill Sheehan
Dr. Jim Sherrard
Ms. Pearl Rathbun
Mr. Mark Holloway
Ms. Marjorie DeBold
Mr. Paul Blasioli
Mr. Kevin Ryan
Dr. Edward Wilds, representing DEP, Commissioner Arthur J. Rocque, Jr.

1. Call to Order

Co-Chair Woollacott called the meeting to order at 7:10 PM at the Waterford Town Hall, Waterford, Connecticut.

2. Approval of March 21, 2002 NEAC Meeting Minutes

Co-Chair Woollacott asked for a motion to accept the March 21, 2002 NEAC minutes. Mr. Sheehan made the motion, and seconded by Ms. Rathbun, all voted in favor as recorded.

3. Dominion Presentation: Dan Weekley, Director of Government Affairs and David Smith, Manager, Nuclear Licensing

3.a. Plant Performance

- Unit II outage was planned for 33 days, but went up to 45 days because of the inspection that was done on the reactor head. It is 85% operating since the outage.
- Unit III is on line 447 days and is operating at 95% capacity.
- Upcoming events are NRC inspection of Unit II and Unit III outage.

3.b. Emergency Plan Exercise Results

- The overall response was excellent. There were no significant issues. The offsite portion of the drill was positive but noted potential areas of improvement which are called ARCA's (Areas Requiring Corrective Action). FEMA closed out all prior ARCA's. There were no repeat ARCA's. FEMA said there were no deficiencies, they had 5-10 new issues that may turn into new issues or may turn into new ARCAs.

3.c. NRC Security Order Status Report

- Since September 11, all operating plants received the same NRC order addressing nuclear power plant security measures. Dominion has responded by the required date and NRC accepts Dominion's response to that order. Dominion is on schedule to complete implementation of the order by August 31st.
- There are more escort requirements, more surveillance equipment installed, and enhancements to emergency response.
- Officers are carrying long-armed weapons.
- Unit I received its order on May 23 and it responded to it on June 11. It is enveloped by the security of Units II and III.

Mr. Weekley discussed additional security issues.

- The site is not accessed by the public.
- In Connecticut Statute, plant security guards have the right to use deadly force when they fear their life is in jeopardy; but it is not clear that the security guards have the right to use deadly force to protect the plants.
- The type of weapons guards may carry is restricted under the assault weapons ban.
- Current security posture meets their needs and they are comfortable with the situation but are trying to take it to the next level.

3.d. Spent Fuel Management Options Study

- There are two types of initiatives that are being looked at; one is the trans shipment or inter-unit transfer, which would take Unit II spent fuel and move to Unit III pool; the other is using the dry cask storage alternative.
- Unit III's spent fuel pool is much larger than Unit II; Unit II will reach core capacity in 2005. The Unit II and Unit III spent fuel pools have sufficient full core capacity until 2020.

4. Questions/Comments from NEAC members

Co-Chair Woollacott: Asked about the nozzle corrosion issue. *Mr. Smith* replied it was a materials aging issue related to time and temperature; not radiation induced. *Co-Chair Woollacott:* How many plants have that happened to? *Mr. Smith* replied that not all plants have gone through their inspections, but the highest ranked plants in susceptibility (13 plants) have seen some type of degradation in their nozzles.

Mr. Holloway: Did the nozzles need to be replaced? *Mr. Smith* replied that they cut it off and inserted a new nozzle from the bottom and weld from the inside. *Mr. Holloway:* Would this be on your list to do regular checks? *Mr. Smith:* Yes, there will be some inspection activity that will continue on Unit II. There was no apparent cracking in other parts of the inspected area.

Mr. Sheehan: What was the outcome of the WANO visit? *Mr. Smith:* There has been no actual report, but there was a debrief. One area we were disappointed with was the industrial safety accident rate.

Co-Chair Markowicz: Asked if NEAC members could observe the security exercises. *Mr. Blasioli* replied that could be arranged.

Mr. Sherrard: The exercises that go on in other plants, are you able to view the results of those drills, do they help with Millstone exercises? *Mr. Smith:* All NRC inspection reports are available and the experiences we learn from other plants help.

Co-Chair Woollacott: suggested sending a letter to the State legislators requesting an exemption of assault weapons for nuclear power plant security guards.

Dr. Sherrard: How do other plants stand with their assault weapons? *Mr. Smith* said most plants like those in Virginia have the ability to carry more weapons than Connecticut.

Mr. Holloway: Asked what the difference was between the two spent fuel storage options? *Mr. Smith* said they were looking at the concrete pad storage, and no decisions have been made as yet. The inner unit transfer is a licensing NRC issue, and dry cask storage is a CT Siting Council issue.

Co-Chair Markowicz: Would it require a license amendment for the inner unit transfer? *Mr. Smith:* It would require a license amendment to be able to take possession of Unit II fuel with Unit III's license.

Mr. Smith also added that the governor of Nevada is not going to vote for Yucca Mountain. He noted that they need all the help they can get for the federal government to approve Yucca Mountain as the federal repository.

Co-Chair Markowicz: Asked about the pending operating license extension. *Mr. Smith* replied that Dominion was going to study extending the operating license and has made an application to extend their license.

Presentation meeting ended at 8:15.

6a. NEAC Business Meeting: Millstone Monitor

Mr. Sheehan read his Monitor Reports (handouts).

Mr. Sheehan recommended "turning in his badge" and asked the committee's recommendation to either cease or continue the Monitor Program. Both Co-Chair Markowicz and Woollacott endorsed Mr. Sheehan's recommendation to turn in his badge. Co-Chair Markowicz made a motion to accept his recommendation, Ms. Rathbun seconded; all voted in favor of Mr. Sheehan turning in his badge and terminating the program. The Council acknowledged the dedication that Mr. Sheehan applied to the Monitor Program.

Dr. Sherrard wanted assurance that the council members could still have access to the plant. Dr. Wilds said DEP has an office at the plant, and if there is anything that the council wants accomplished, the DEP staff would help.

6b. NEAC Business Meeting: KI Work Group Report

- Co-Chair Markowicz discussed the KI working group and subgroups progress.
- Dr. Wilds said they got clarification from the FDA on KI dosages, and they will distribute the pills according to the 1982 guidance, not the 2001-guidance document.
- Mr. Sheehan asked about expanding the EPZ zone from 10 to 20 miles. Dr. Wilds said the House and Senate passed a bill for Health and Human Services to develop a program for KI distribution in public buildings out to 20 miles of the plant but did not change the size of the EPZ.

6c. NEAC Business Meeting: MIDAC Report

- Ms. Rathbun discussed the MIDAC meeting held in May 2002. She discussed a possible Maine Yankee visit.
- Ms. DeBold gave an update of Connecticut Yankee's decommissioning, which is about 55% complete. She said vertical casks are being built.

6d. NEAC Business Meeting: Yucca Mountain Visit Report

- Dr. Sherrard handed out brochures from his Yucca Mountain visit. They recently cancelled all tours of the facility. There were questions with water problems, i.e., if the water gets hot, will the pipes crack.
- If it gets voted no, it will take another 15 years to find another site, and there isn't any other site being looked at.
- Co-Chair Woollacott asked for subjects for the next meeting's agenda. He said that he would take action on the assault weapons letter to State Legislators, and Co-Chair Markowicz would draft a letter to Senators Dodd and Lieberman requesting their support for opening the Yucca Mountain Federal Repository. Dr. Sherrard suggested personnel downsizing at Millstone as a topic. Mr. Blasioli said it is now below 1400. Most of the people who have left went to NU.
- Co-Chair Woollacott also asked for input for a meeting in July with Melody Peters. Mr. Sheehan suggested that NEAC should stay in existence; it keeps the public informed. Mr. Holloway added the committee has gained a lot of historical information, experience and background data.

7. Adjournment

Motion by Mr. Sheehan, seconded by Ms. DeBold to adjourn; meeting adjourned at 9:15 PM

Next meeting: Waterford Town Hall, September 19, 2002

**Nuclear Energy Advisory Council (NEAC) Meeting
Waterford Town Hall
Waterford, Connecticut
September 19, 2002**

October 10, 2002

Mr. John Markowicz, Co-Chair
Mr. Bill Sheehan
Mr. John Helm
Mr. Paul Blasioli
Mr. Kevin Ryan
Mr. Robert Klancko
Ms Marge DeBold
Mr. Mark Holloway
Dr. Gregg Dixon
Dr. Edward Wilds, representing DEP, Commissioner Arthur J. Rocque, Jr.

1. Call to Order

Co-Chair Markowicz called the meeting to order at 7:12 PM at the Waterford Town Hall, Waterford, Connecticut.

2. Approval of June 20, 2002 NEAC Meeting Minutes

Co-Chair Markowicz asked for a motion to accept the June 20, 2002 NEAC minutes. The motion was made by Mr. Sheehan, seconded by Mr. Holloway; no objections; Mr. Klancko abstained, majority voted in favor as recorded.

3. State of Connecticut Potassium Iodide (KI) Distribution Program Presentation: Office of Policy and Management Undersecretary Brian E. Mattiello and Planning Specialist Daniel D. Morley.

Co-Chair Markowicz introduced Mr. Mattiello and Mr. Morley from OPM. Mr. Mattiello discussed the history of the KI policy and how it was restructured. A workgroup was formed to make three early decisions: (1) distribution of KI should be proactive (every household in the EPZ is provided their supply), (2) distribution should be coordinated with the towns in the EPZ, and (3) public education had to be included in the distribution plan. (The public needed to understand the dosage and potential health problems). We needed to take some time with this decision. We also needed to focus on nursing homes, schools, seasonal residents and the medical side effects. The FDA is providing us information on side effects.

Mr. Mattiello also discussed control management, the legal liability issues, communication, mass mailing to 67,000 households, dosage guidance and cable TV public outreach programs. He distributed a sample that included two KI pills in an envelope, a cover letter from the Commissioner of Public Health, a question sheet and an instruction sheet with evacuation routes printed on the back. He said there were two workgroups that were set up, one for the distribution and one for education/communication.

Mr. Morley said there are distribution and reception centers. The pills would go to the EPZ zones first then the 5 host communities.

4. Questions/Comments from NEAC members

Mr. Holloway asked how will they be given to schools? Mr. Mattiello said the school distribution plan is in the development stage and will be the next stage.

Mr. Klancko was concerned with perception. He said that nuclear energy and the dirty bomb are two separate issues and should not be blended together. He suggested the Question Sheet in the distribution package should have two separate questions, one on nuclear power plant emergency and one on the dirty bomb. You might be sending out the wrong message. Co-Chair Markowicz offered to incorporate Mr. Klancko's concern in the Education/Communication Plan.

Co-Chair Markowicz asked for a definition of the communities of the EPZ. Mr. Mattiello said they were going with the federal guidance of 10 miles, but looking at an amendment to recently enacted federal legislation that might extend that.

Mr. Sheehan asked about the bulk mailing schedule; he heard that the post office can take up to 2 weeks for bulk mailing. Mr. Mattiello answered that the main office at the post office said two days for delivery. Mr. Sheehan said they have a window of about a week. Mr. Mattiello said they will follow up on it. Mr. Sheehan mentioned a news report from Stamford that they elected to get pills on their own. The news stations that reported this did not convey the right message to the people. He was concerned about the accuracy with which the correspondents and anchor people report nuclear-related issues.

Mr. Klancko asked how are you going to know if someone moved; took the pills with them and how will the new owners get their pills? Mr. Mattiello said that is why the municipalities will be supplied additional quantities of KI pills.

Co-Chair Markowicz asked if there is any commitment from the Federal government to get more pills at this time. Mr. Mattiello said there is nothing at this time.

Mr. Holloway said that Tennessee, the only other state to attempt mass mailings, had problems with this approach. He asked if the workgroup had considered voluntary pickup at town halls? Mr. Mattiello responded that this had been considered and rejected in favor of a proactive approach.

Mr. Sheehan suggested having a test evacuation exercise and use a volunteer group from the schools, and teacher to see if it works. Co-Chair Markowicz said there was a recent Millstone drill that FEMA had evaluated as satisfactory with a few areas that needed improvement.

Mr. Klancko said he also serves on the SERC committee and they have emergency drills and do their own disaster plan. He feels there is a degree of comfort in that there are a lot of agencies involved with the health and safety of citizens of Connecticut.

5. Public Comment and Question Period

Mary Browning asked when the pills would be distributed. Mr. Mattiello said FEMA had allowed one year to complete distribution. The legislature passed a bill to report on the distribution by February 2003. We would like to complete this by early fall, the timeframe leading up to January 1. We completed all state requirements for communication and packaging. By the middle of next month, 67,000 residents will receive the KI pills in the mail. We will send supplements to the towns at the same time. Prior to mailing, we will issue a press release. Co-Chair Markowicz also said the Department of Health is taking the lead on public communications. Mr. Mattiello further noted that New York supplied Fishers Island, 80,000 pills were to be stockpiled at schools, and 110,000 pills would be distributed to host communities based on population. Mr. Mattiello said that there was a database that was recently updated that gave all the residents' addresses.

Mr. Joseph Besade asked if Dominion could pick up the bill after the shelf life is over. Mr. Mattiello said that the nuclear fund in Connecticut is paying for implementing the distribution of the pills.

A question was raised regarding the dosage. Mr. Mattiello said in the 10-mile radius, 4 pills per household will be the initial dosage. Dr. Wilds said the goal is to evacuate to a safe area. Once you leave the area, you would no longer be exposed to iodine and would only need that one pill for that first day. Mr. Holloway said that KI pills are a supplement that you take when directed in the event of a nuclear emergency, then if the evacuation takes longer, there will be other pills that should be available to you.

A question was asked regarding what would happen to children if the package gets in their hands by mistake? Both Co-Chair Markowicz and Mr. Mattiello said that the dosage is not lethal and would result in only vomiting and diarrhea.

Mary Browning asked if they could increase the speed in the distribution. Mr. Mattiello said they are doing the best they can.

A question was raised about the evacuation; if they can get out in time. Co-Chair Markowicz said we are working hard to improve the Connecticut transportation system during an evacuation. It is very likely that all highway lanes will be used to leave the region, thereby significantly increasing the capacity of our highways.

Mr. Besade wanted to know why the guards had to get permission to shoot if a terrorist plane attacked. He stated that if the Federal Government protected the plant, there is a different set of rules, and they could fire. Co-Chair Markowicz read a letter to Mr. Besade that was sent by NEAC last year to the Governor and legislative leaders about homeland security.

6. NEAC Business Meeting:

- Co-Chair Markowicz discussed the Annual Report to the Governor and Legislature. He asked for input via e-mail by the 15th of November and stated that the December meeting will be focused on the Annual Report. Mr. Holloway asked for an alternate date of December 12th if the 19th doesn't work for the committee members.
- Mr. Klancko said there is a faculty member at Rensselaer College who has expertise in corrosion of storage casks. If the committee would like to have him attend a meeting, he could arrange it. Co-Chair Markowicz asked if the committee needed to finance the trip for him; Mr. Klancko will look into that.
- Co-Chair Markowicz said the NRC sends weekly correspondence which includes the results of their Millstone inspections. The reports cited green performance and no outstanding issues.
- Ms DeBold gave an update on Connecticut Yankee decommissioning. It is 65% complete and they had submitted their license termination plan to NRC. There is one unresolved item. They expect to have their hearing early in 2003. In March, they hope to begin moving their fuel. Co-Chair Markowicz suggested NEAC sending a letter of support for the hearing to be held in Connecticut. Ms DeBold will find out what the subject will be for the hearing.
- Dr. Wilds said the senate and house conference committee approved the 15 year extension of the Price Anderson Act.

7. Adjournment

Motion by Mr. Sheehan, seconded by Mr. Holloway to adjourn; meeting adjourned at 8:35 PM

Next meeting: Waterford Town Hall, December 19, 2002

**Nuclear Energy Advisory Council (NEAC) Meeting
Waterford Town Hall
Waterford, Connecticut
December 19, 2002**

January 15, 2003

Mr. John Markowicz, Co-Chair
Mr. Evan Woollacott, Co-Chair
Ms. Pearl Rathbun
Mr. James Sherrard
Mr. Bill Sheehan
Dr. Edward Wilds, representing DEP, Commissioner Arthur J. Rocque, Jr.

1. Call to Order

Co-Chair Woollacott called the meeting to order at 7:15 PM at the Waterford Town Hall, Waterford, Connecticut.

2. Approval of September 19, 2002 NEAC Meeting Minutes

Co-Chair Woollacott asked for a motion to accept the September 19, 2002 NEAC Minutes. The motion was made by Mr. Sheehan; seconded by Co-Chair Markowicz; no objections; majority voted in favor as recorded.

3. Public Comment Period

There was no public at the meeting.

4. Review of Draft NEAC Annual Report – 2002

Members in attendance reviewed report page by page and corrections discussed. Co-Chair Woollacott asked for a motion to accept the NEAC Annual Report – 2002 as corrected. Motion was made by Mr. Sheehan; seconded by Co-Chair Markowicz; no objections; majority voted in favor as to accept report as corrected.

**5. NEAC Business Meeting
a. Calendar Year 2003 Meeting Schedule**

Dr. Wilds forwarded the 2003 Annual Schedule of Regular Meetings filed with the Office of Secretary of the State to Co-Chair Markowicz. Discussion on required frequency of meetings given reduced activity of NEAC at the present time. Co-Chair Woollacott recommended that NEAC not have regularly scheduled meeting and meet at the call of the Chair. Short discussion on how this related to requirements for notification of the Office of the Secretary of the State

and determined to meets the requirements. Discussion on notifying state legislators about whether NEAC had completed its work. Co-Chair Markowicz agreed to discuss this issue with the area's two representatives. Co-Chair Woollacott asked for a motion to hold Calendar Year 2003 meetings at the call of the Co-Chairs and for the Co-Chairs to contact appropriate state legislators to discuss the future of NEAC. Motion was made by Mr. Markowicz; seconded by Mr. Sheehan; no objections; majority voted in favor.

7. Adjournment

Motion was made by Mr. Sheehan; seconded by Co-Chair Markowicz to adjourn; no objections; majority voted in favor; meeting adjourned at 8:05 PM

APPENDIX 3

Memorandum - 2002-01

DATE: JANUARY 15, 2002
TO: Evan Woollacott and John Markowicz, Co Chairs, NEAC
FROM: Bill Sheehan
RE: MONITOR WATCH IN MILLSTONE 3 CONTROL ROOM

1. On January 15, 2002, I spent from 1949 to 2050 in the control room of MILLSTONE 3 observing the control room watchstanders. The Reactor Plant was critical at 100% Power in Mode 1. The following comments are germane:

- a. Watchstanders were formal in their communications with each other concerning plant operations.
- b. The only event during the monitor period was a boron dilution procedure, which occurred without incident.
- c. This was a quiet watch while continuously generating electricity.

2. A copy of these comments was provided to Bill Hoffner, Process Owner Operations Millstone 3.

Bill Sheehan

Memorandum - 2002-02

DATE: FEBRUARY 04, 2002
TO: Evan Woollacott and John Markowicz, Co Chairs, NEAC
FROM: Bill Sheehan
RE: MONITOR WATCH IN MILLSTONE 2 CONTROL ROOM

1. On February 04, 2002, I spent from 1650 to 1750 in the control room of MILLSTONE 2 observing the control room watchstanders. The Reactor Plant was at 85% power in the End of Life Coast Down Procedure. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations.
 - b. There were a number of trainees from the current licensing class in the control room for practical factors. Trainees were actually performing watch station functions under the careful supervision of the qualified watchstanders.
 - c. The control room "Duress Alarm" was tested during my observation.
 - d. The Shift Manager informed me that the new editor of the New London Day and members of the Day staff toured Millstone earlier in the day.
 - e. When questioned about preparation for the refueling outage, the Shift Manager and Shift Technical Advisor commented that they felt that it was the best preparation for an outage since they had been at Millstone Station. There are more contingency plans than in previous outages..
2. A copy of these comments was provided to Dan Hagen, Process Owner Operations Millstone 2.

Bill Sheehan

Memorandum - 2002-03

DATE: FEBRUARY 18, 2002
TO: Evan Woollacott and John Markowicz, Co Chairs, NEAC
FROM: Bill Sheehan
RE: MONITOR WATCH IN MILLSTONE 2 CONTROL ROOM

1. On February 18, 2002, I spent from 1710 to 1755 in the control room of MILLSTONE 2 observing the control room watchstanders and from 1800 to 1810 in the One Stop Shop observing the outage team. The Reactor Plant was shutdown in the third day of refueling outage 14. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations. There were two procedures being conducted to support setting up auxiliary systems for planned outage work.
 - b. Discussion with the Shift Manager and the new Operations Director for Unit 2 revealed that the outage has started on a positive note. Lessons learned from Millstone 3 and the new sister stations at North Anna and Surrey added to the preparations for a smooth outage.
 - c. There are three possible unknowns that could change the ambitious schedule:
 - 1) Major cracking is found in the turbine blades that would prevent the planned repairs and require turbine replacement.
 - 2) Cracks are found as a result of the non-destructive testing on the Reactor Vessel head. (NEAC has been routed the key correspondence on this requirement).
 - 3) The Helium pressure test of Reactor Coolant Pumps (RCP) A and C reveal problems greater than expected.
 - d. A very positive development during this outage will be the installation of new Automatic Control Element Assembly Timer Modules (ACTM) that will give improved reliability to the Control Element Drive Mechanisms (CEDM). New governor will also be installed in the SGFP speed controller to improve performance of this system.
 - e. Some of the control room operators were wearing "NO UNION" pins. There has been a recent petition to organize the operations and mechanics workers at Millstone.
2. A copy of these comments was provided to Ken Truesdale, Director of Operations Millstone 2.

Bill Sheehan

Memorandum - 2002-04

DATE: MARCH 09, 2002

TO: Evan Woollacott and John Markowicz, Co Chairs, NEAC

FROM: Bill Sheehan

RE: MONITOR WATCH IN MILLSTONE 2 CONTROL ROOM

1. On March 09, 2002, I spent from 1052 to 1150 in the control room of MILLSTONE 2 observing the control room watchstanders and from 1150 to 1200 in the One Stop Shop observing the outage team. The Reactor Plant was shutdown in refueling outage 14. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations. Testing of the Turbine hydraulic controls was in progress.
 - b. During the monitor I visited the new Containment Monitoring Station (CMS) area. This area near the entry to MP2 Containment now has a series of TV monitors that are connected by a fiber cable to a number of cameras in the containment area. All jobs can be monitored, saved on a CD for critique and viewed by engineers, etc. without radiation exposure. I viewed the 'C' Reactor Coolant Pump (RCP) repairs and the Reactor Head CEA Nozzle crack repairs. In addition to watching a job, the monitors are able to view the dosage being received by workers in the containment in real time and make on the spot recommendations to reduce the dose rate received.
 - c. The Reactor Coolant System was in a "reduced inventory" status to facilitate repairs to the 'C' RCP. No leaks were found in the 'A' RCP during the helium testing. In case of emergency a temporary flange is available near the 'C' RCP to seal the pump cavity if necessary.
 - d. Only three "cracks" were found in the Reactor Vessel Head inspection that required repairs. Those repairs may extend the outage an additional four to five days.
 - e. The turbine is back together and initial cold testing is in progress (see above).
 - f. The one stop shop was a beehive of activity as the outage work nears completion. All work is proceeding according to the original schedule except were related to the Reactor Vessel head repairs and the 'C' RCP.
2. The teamwork of the workers at Millstone Station is obvious in the execution of the outage. In addition, the commitment of Dominion is apparent in the investment required to set up the digital remote monitoring system based on fiber technology and computers. It should pay great dividends in executing ALARA requirements as well as improving work tasks by "reviewing the replay."
3. A copy of these comments was provided to Ken Truesdale, Director of Operations Millstone 2 and Bill Hoffner, Manager Nuclear Operations.

Bill Sheehan

Memorandum - 2002-05

DATE: APRIL 02, 2002
TO: Evan Woollacott and John Markowicz, Co Chairs, NEAC
FROM: Bill Sheehan
RE: MONITOR WATCH IN MILLSTONE 2 CONTROL ROOM

1. On April 02, 2002, I spent from 1720 to 1830 in the control room of MILLSTONE 2 observing the control room watchstanders. The Reactor Plant was at 13% power attempting to close the power breaker and officially end refueling outage 14. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations.
 - b. During the monitor the day shift attempted to synchronize the generator with the power grid three times and the night shift tried one time. None of the attempts were successful.
 - c. The oncoming shift manager delayed his section's first attempt to parallel with the power grid so that all watchstanders would be relieved and the shift briefed on the expected procedure. It was a good call although the individuals working on the recalcitrant breaker were not happy with the short delay of ten minutes.
 - d. This effort to close the power breaker had been going on all day and the senior operators were concerned with the time the turbine generator was at the low power level. The engineering technical support had informed them that the turbine should not be operated at the low power for an extended period.
 - e. When I left the shift manager had just announced that there would be a delay before the next attempt to parallel with the power grid while "some tubes in the breaker control circuitry cooled down."
2. I was surprised that there was not more obvious engineering support regarding the turbine generator limitations and the steps to repair the malfunctioning breaker control circuitry. Since the efforts had been going on since the morning, I would have expected more formal guidance than "the turbine can't run forever at 13% power" and in the steps to get the main power breaker control circuits operating correctly. The operators are good but they need that technical back up. If that backup was present, it was not obvious to me.
3. A copy of these comments was provided to Ken Truesdale, Director of Operations Millstone 2 and Bill Hoffner, Manager Nuclear Operations.

Bill Sheehan

Memorandum - 2002-06

DATE: APRIL 18, 2002
TO: Evan Woollacott and John Markowicz, Co Chairs, NEAC
FROM: Bill Sheehan
RE: MONITOR WATCH IN MILLSTONE 2 CONTROL ROOM

1. On April 18, 2002, I spent from 1655 to 1755 in the control room of MILLSTONE 2 observing the control room watchstanders. The Reactor Plant was between 90% and 100% power conducting the Isothermal Temperature Coefficient Test (IPTE). The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations.
 - b. Because this test is seldom accomplished (The last time was in June 2000) there was a special test director and three Reactor Engineers monitoring the plant and taking data for the Negative Temperature Coefficient reactivity addition calculations.
 - c. According to the Shift Manager the operators had a much easier time controlling plant conditions for the test due to the new computer assisted feed pump controls.
 - d. There were no trainees present during the test. They missed an unusual opportunity to see the tight relationship between control rods, plant temperature and steam flow that is not generally apparent during normal operations. This type of Reactor Physics testing is very educational.
2. On questioning, I learned that the 'A' Main Coolant Pump was the pump that caused the shutdown after initial startup from the outage. That is the pump that passed the helium leak test during the outage.
3. During the next shift the 'B' and 'C' charging pumps were going to be placed out of commission while the pump relief valve flanges were torqued to the correct value. An error in the Refueling Outage work order caused them to be torqued to a lesser value that required by the specifications. The error was caught during post work reviews.
4. The shift manager also informed me that Millstone was "buzzed" by a small plane today and the Air National Guard forced the plane down at Groton Airport. He did not have any further information. It seems that Indian Point was "buzzed" by a private plane yesterday and it was on local TV news in New York (The plane had a TV crew in it).
5. A copy of these comments was provided to Ken Truesdale, Director of Operations Millstone 2 and Bill Hoffner, Manager Nuclear Operations.

Bill Sheehan

Memorandum - 2002-07

DATE: MAY 06, 2002
TO: Evan Woollacott and John Markowicz, Co Chairs, NEAC
FROM: Bill Sheehan
RE: MONITOR WATCH IN MILLSTONE 3 CONTROL ROOM

1. On May 06, 2002, I spent from 1715 to 1815 in the control room of MILLSTONE 3 observing the control room watchstanders. The Reactor Plant was critical at 100% Power in Mode 1. The following comments are germane:

- a. Watchstanders were generally formal in their communications with each other concerning plant operations.
 - b. The Unit Supervisor informed me that the site was being visited by WANO, the international equivalent of the INPO organization.
 - c. During the watch turnover “board walk” there was a “traffic jam” at the steam plant panels. Fortunately, one watchstander had already relieved and was watching plant conditions.
 - d. During the “board walk” an alarm sounded and then cleared. The watchstanders answered the alarm but did not inform any of the senior watchstanders, even after the completion of the tour of the panels was complete.
2. A copy of these comments was provided to Bill Hoffner, Process Owner Operations Millstone 3.

Bill Sheehan

Memorandum - 2002-08

DATE: MAY 25, 2002
TO: Evan Woollacott and John Markowicz, Co Chairs, NEAC
FROM: Bill Sheehan
RE: MONITOR WATCH IN MILLSTONE 2 CONTROL ROOM

1. On May 25, 2002, I spent from 1050 to 1150 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. It was a quiet watch. The only activity was generating electricity.
2. A copy of these comments was provided to Ken Truesdale, Director of Operations Millstone 2 and Bill Hoffner, Manager Nuclear Operations.

Bill Sheehan

Memorandum - 2002-09

DATE: JUNE 13, 2002
TO: Evan Woollacott and John Markowicz, Co Chairs, NEAC
FROM: Bill Sheehan
RE: MONITOR WATCH IN MILLSTONE 3 CONTROL ROOM

1. On June 13, 2002, I spent from 1720 to 1820 in the control room of MILLSTONE 3 observing the control room watchstanders. The Reactor Plant was critical at 94% Power in Mode 1. The following comments are germane:
 - a. Watchstanders were formal in their communications with each other concerning plant operations.
 - b. The major event during the monitor was the frequent boron dilutions to maintain TAVE as the plant recovered from a down power period to repair a turbine driven and motor driven feed pump.
 - c. Watch turnover was efficient and professional.
2. A copy of these comments was provided to Bill Hoffner, Manager Nuclear Operations.
3. Pending a decision at the next Nuclear Energy Advisory Council meeting, this will be the last Millstone Monitor.

Bill Sheehan

APPENDIX 4



State of Connecticut

NUCLEAR ENERGY ADVISORY COUNCIL

EVAN WOOLLACOTT
Co-Chair
JOHN MARKOWICZ
Co-Chair

128 Terry's Plain Rd
Simsbury, CT 06070
190 Gov. Winthrop Blvd
New London, CT 06320

Paul A. Blasioli
Waterford

July 3, 2002

Marjorie W. DeBold
Haddam

Dr. Gregg Dixon
Niantic

The Honorable Joseph Lieberman
United States Senator
Washington, DC 20510

John Helm, Sr.
Groton

Dear Senator Lieberman:

Mark Holloway
Waterford

In accordance with State of Connecticut Public Act 96-245, the Connecticut Nuclear Energy Advisory Council (NEAC) is charged to work with agencies of the federal government on issues relating to nuclear power generating facilities to ensure public health and safety. In light of the recent terrorist threats to vital United States interests, NEAC recognizes and appreciates the actions taken by federal, state, and local agencies and organizations, both public and private, to enhance physical security at these installations. However, the unforeseen nature of the aircraft suicide attacks on September 11, 2001 has justifiably heightened public concern regarding the vulnerability of Connecticut's spent fuel pools, particularly those that are not located within a containment structure (i.e., Connecticut Yankee, Millstone 2, and Millstone 3).

Robert Klenko
Woodbridge

Pearl Rathbone
Niantic

Rep. Kevin Ryan
Oakdale

Bill Sheehan
Waterford

It is the position of NEAC that the prompt activation of the permanent nuclear waste storage repository at Yucca Mountain is now in the national interest as well as a matter of national security. The relocation of nuclear waste from Connecticut to this more secure and consolidated location is the most practical approach to reducing our local vulnerability to catastrophic scenarios that were unimaginable the last time you deliberated and voted on this issue.

Jim Sherrard
Mystic

Edward Wilds
Griswold

On behalf of the health and safety of your constituents, NEAC urges you to support and cast your most important vote in favor of activating the Yucca Mountain Repository.

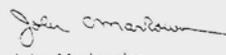
Thank you for your consideration of these important issues.

For the Nuclear Energy Advisory Council,

Sincerely,

Sincerely,


Evan W. Woollacott
Co-Chairman


John Markowicz
Co-Chairman



State of Connecticut

NUCLEAR ENERGY ADVISORY COUNCIL

EVAN WOOLLACOTT
Co-Chair
JOHN MARKOWICZ
Co-Chair

128 Terry's Plain Rd
Simsbury, CT 06070
190 Gov. Winthrop Blvd
New London, CT 06320

Paul A. Blasioli
Waterford

July 3, 2002

Marjorie W. DeBold
Haddam

Dr. Gregg Dixon
Niantic

The Honorable Joseph Lieberman
United States Senator
1 State Street
Hartford, CT 06103

John Helm, Sr.
Groton

Mark Holloway
Waterford

Dear Senator Lieberman:

Robert Klenko
Woodbridge

Pearl Rathbone
Niantic

Rep. Kevin Ryan
Oakdale

Bill Sheehan
Waterford

Jim Sherrard
Mystic

Edward Wilds
Griswold

In accordance with State of Connecticut Public Act 96-245, the Connecticut Nuclear Energy Advisory Council (NEAC) is charged to work with agencies of the federal government on issues relating to nuclear power generating facilities to ensure public health and safety. In light of the recent terrorist threats to vital United States interests, NEAC recognizes and appreciates the actions taken by federal, state, and local agencies and organizations, both public and private, to enhance physical security at these installations. However, the unforeseen nature of the aircraft suicide attacks on September 11, 2001 has justifiably heightened public concern regarding the vulnerability of Connecticut's spent fuel pools, particularly those that are not located within a containment structure (i.e., Connecticut Yankee, Millstone 2, and Millstone 3).

It is the position of NEAC that the prompt activation of the permanent nuclear waste storage repository at Yucca Mountain is now in the national interest as well as a matter of national security. The relocation of nuclear waste from Connecticut to this more secure and consolidated location is the most practical approach to reducing our local vulnerability to catastrophic scenarios that were unimaginable the last time you deliberated and voted on this issue.

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Washington, DC 20510

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Haddam

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United States Senator
100 Great Meadow Road
Wethersfield, CT 06109

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Niantic

John Helm, Sr.
Groton

Dear Senator Dodd:

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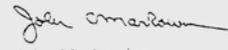
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Evan W. Woollacott
Co-Chairman


John Markowicz
Co-Chairman

APPENDIX 5

Nuclear Energy Advisory Council

Millstone 1 Decommissioning Advisory Committee

Pearl I. Rathbun (Co-Chair), Niantic: BA Economics, Eastern Connecticut State University. Administrative Assistant, East Lyme Emergency Management and Fire Marshal's Bureau; Deputy Emergency Management Director, East Lyme.

Rep. Kevin Ryan (Co-Chair), Oakdale: O.D., Pennsylvania College of Optometry. Legislator, Adjunct Faculty University of New Haven.

Paul Blanch (Ad Hoc Member), West Hartford: BSEE, University of Hartford. Professional Engineer, Management Consultant, Northeast Utilities.

Jerome Bobruff, M.D., New London: M.D. Degree, Yale University. Private Practice.

Joseph M. Coleman, Niantic: BSME, University of Notre Dame. Retired. Former experience includes Civil Engineer, Bethlehem Steel Company; Supervisor of Shipbuilding, USN and Electric Boat Division of General Dynamics Corp.

Gregg W. Dixon, Ph.D., Niantic: Ph.D., Mechanical Engineering (Nuclear), Stanford University. Mechanical Engineering, U.S. Coast Guard Academy.

Wayne L. Fraser, East Lyme: First Selectman, Town of East Lyme.

Robert A. Moore, Niantic: Master of Theology, Boston University. Pastor of Niantic Community Church.

James R. Sherrard, Mystic: MS Nuclear Science and Ph.D. Program in Nuclear Engineering, Catholic University of America. Chairman of Nuclear Engineering Technology Department, Three Rivers Community-Technical College.

Doran Shumway, Oakdale: School of Radiologic Technology, Windham Community Memorial Hospital, Willimantic. Former radiation control specialist, Connecticut Department of Environmental Protection.

Paul A. Suprin, Waterford: BA Psychology, Central Connecticut State University. Senior Commercial Lending Officer.

Geralyn Winslow, Waterford: Southern Connecticut State University and University of Arizona. Paraprofessional, lifelong resident of Waterford, member of Citizens Regulatory Commission (CRC).

APPENDIX 6

MIDAC Activity Report for May 2002

To: Nuclear Energy Advisory Council

From: Pearl I. Rathbun, MIDAC

Date: June 20, 2002

The 2002 annual MIDAC meeting was held on May 9 in the East Lyme High School library. The agenda included an update on Unit 1's missing fuel pins and review of NRC inspection reports. Dr. Ronald Bellamy, Branch Chief, NRC Region I, addressed the committee, explaining that last year's focus for the NRC at Unit 1 concerned the missing fuel rods.

Dr. Bellamy updated the committee on decommissioning for Connecticut Yankee, Yankee Rowe, and Maine Yankee, noting that Connecticut Yankee has resolved issues concerning the location of their fuel storage.

The NRC's November 15, 2001, inspection report for Millstone Unit 1 contained two violations with regard to the missing fuel pins: failure to adequately account for special nuclear material and timeliness in reporting the incident. Dr. Bellamy explained that on Sept. 12 (2000), Millstone should have concluded that the rods were missing, yet NRC was not notified until November. However, Dr. Bellamy pointed out that the NRC found no evidence that Millstone willfully withheld reporting of the missing rods.

Committee members questioned what would have happened if the incident had been reported sooner, what NRC's focus is during inspections, how the rods were discovered missing, if a physical search of the pool was conducted and, if the rods were shipped, would it constitute a transportation violation.

Dr. Bellamy said that if NRC had been notified sooner, they would have responded quicker. He stated that NRC inspections focus on whether or not the licensee has adequate plans and procedures in place to protect the public. Dr. Bellamy explained that the rods were discovered during identification of material in the spent fuel pool in anticipation of dry cask storage. He said that a 100% physical search of the pool was not conducted, but an exhaustive search of accessible areas of the pool was made. Dr. Bellamy said that if the rods were transported, this would be an issue.

When asked if the fuel pool is safe from terrorists, Dr. Bellamy said yes. He stated that since the events of September 11, the NRC has required significant security upgrades for operating plants, and similar upgrades are being considered for decommissioning plants.

During the MIDAC's business meeting, it was suggested that MIDAC members witness a fuel transfer to dry cask storage at either Maine Yankee or Yankee Rowe, possibly in the fall. Ms. Winslow attended a people's summit on high level radioactive wastes and Yucca Mountain and distributed copies of information to committee members.

The next meeting of the MIDAC is scheduled for May 1, 2003.



Pearl I. Rathbun
MIDAC Co-chair