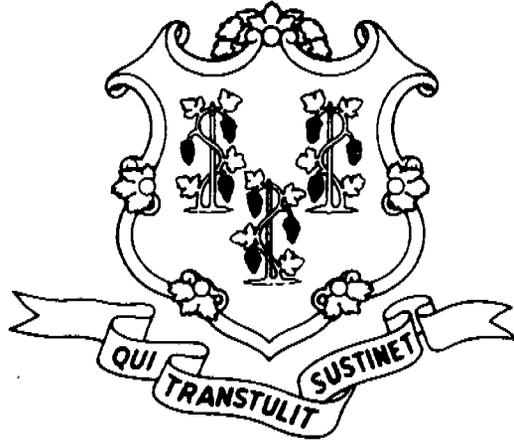


State of Connecticut



1996 INTERIM REPORT OF THE NUCLEAR ENERGY ADVISORY COUNCIL

Established Pursuant to Public Act 96-245

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

January 9, 1997



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CHARGE TO THE COUNCIL

Section 17 of Public Act 96-245 created the Nuclear Energy Advisory Council 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 plant;
4. communicate, through reports and presentations, with the plants' operators about safety or operational concerns at the plant; and
5. review the current status of the plants with the Nuclear Regulatory Commission (NRC).

COUNCIL MEMBERS

The council has 14 members (appendix 1).

COUNCIL ACTIVITIES IN 1996

Meetings

The council held its organizational meeting on August 1, 1996 (within 60 days of the effective PA 96-245, as required by the act) and held monthly meetings thereafter. To permit maximum public involvement, the council met in Hartford, Waterford, and Haddam. Specifically, the council met on:

- (1) August 1 in Hartford,

- (2) September 9 in Waterford,
- (3) October 10 in Haddam,
- (4) November 7 in Waterford,
- (5) December 12 in Waterford, and
- (6) January 9 in Hartford.

At the meetings, the NRC, Northeast Utilities (NU), and various citizen organizations made presentations, and comments were received from the general public. The minutes of the meetings are enclosed as appendix 2. In addition, members of the council toured the Millstone site and observed 16 other public meetings with the NRC and NU at the Millstone and Connecticut Yankee nuclear plants and in East Lyme.

The council has collected background information concerning the operation of the state's nuclear power plants. It has addressed a wide range of issues that may affect public health and safety. These include:

1. NU's ineffective and arrogant approach to management of its nuclear power generating facilities;
2. the failure of NU and the NRC to respond to concerns raised by nuclear plant employees in a timely and appropriate manner;
3. the perceived failure of NRC to fulfill its charter;
4. procedures to be followed by NU and the NRC in restarting the Millstone units, including the prioritization of the steps to be taken;
5. the process to select a contractor for the NRC-mandated Independent Corrective Action Verification Program (ICAVP - a third party review which must be completed before the

Millstone units can be restarted), and the independence of this contractor;

6. The state's nuclear power plants may serve as de facto long-term high level radioactive waste storage facilities, and the public health implications of this eventuality;
7. operations that could result in the release of radioactivity threatening worker and public safety if not implemented correctly;
8. the decision to decommission Connecticut Yankee; and
9. the leaching of cement in the concrete foundation of the Millstone 3 containment structure.

The council has received and reviewed a number of relevant documents (bibliography, appendix 3).

The council wrote to NRC chairman Dr. Shirley Jackson on October 22, 1996, expressing its concerns. These include the process used to select the ICAVP contractor and the selection of systems to be reviewed by the contractor (appendix 4). Due to the delay with her response and time being of the essence, the council appointed a five member subcommittee (including members of the public) to review and report on the independence of the ICAVP contractor selection (see report, appendix 5).

On November 12, 1996, the council again wrote to Dr. Jackson, requesting that the council receive reports of the contractor overseeing NU's resolution of Millstone employee safety concerns (see appendix 4).

ISSUES

Based on the Hannon Report which addressed the cultural problems at Millstone (executive summary, appendix 6), comments from the public at the council's meetings, and allegations from individual whistleblowers, the council believes:

1. the present situation (all of NU's Connecticut nuclear plants are shut down and three on the NRC category 3 watch list) appears to have been caused by NU senior management's cost cutting, and the inappropriate and arrogant management style for the highly skilled work force needed to operate nuclear facilities;
2. the NU Nuclear Quality Assurance System implemented pursuant to 10 CFR 50 Appendix B appears to have been ineffective due to lack of support from senior management.
3. the NRC must share responsibility with NU for allowing conditions which fostered the above problems and allowed them to continue for years.

OBSERVATION

The Council recognizes that management changes have been made by NU including;

- a new CEO and president of NU Nuclear;
- the arrival of executives with recovery teams loaned from other utilities that operate nuclear units, to assist in the recovery of the Millstone units; and
- a recently appointed Nuclear Oversight Officer.

The council supports these decisions, expects progress with deliberate speed, and will monitor the situation on a continuing basis.

RECOMMENDATIONS

The council has identified a wide range of preliminary recommendations to the legislature. Some of these recommendations are directed to the federal government and the NRC, others to the state, and still others to NU.

Recommendations to Federal Agencies

1. The NRC must be vigilant in monitoring compliance with its licensing requirements and orders;
2. Congress should move with all speed to pass an integrated spent fuel management bill in light of the fact that: (a) storing spent fuel in a plant undergoing decommissioning presents a safety issue that is different from, but no less important than in an operating plant and (b) storage of spent fuel costs ratepayers millions of dollars per year;
3. relevant congressional committees should hold one or more public hearings in the state addressing decommissioning and current nuclear issues;
4. because the process is delayed by confusion regarding which agency is responsible for responding to whistleblower concerns, the council recommends that the lines of responsibility between the NRC and the U.S. Department of Labor be clarified in order to expedite investigations of, and timely responses to, whistleblower complaints;
5. the NRC should conduct and release to the public the results of an analysis detailing the consequences of a potential loss of inventory in the Millstone 1, 2, 3, and CY spent fuel pools (this analysis should reflect the spent fuel pools as they are presently configured accounting for the additional fuel rod inventory as a result of pool re-racking); and
6. NRC should rotate its resident inspectors more frequently.

Recommendations for State Agency/Legislative Action

The council recommends that:

1. The state continue to monitor the ongoing operation of the nuclear power generating facilities from the perspectives of health and safety;

2. the state continue its efforts to require the U.S. Department of Energy to site a high level radioactive waste disposal facility;
3. the state should study the economic, energy, and environmental ramifications of nuclear plant shutdowns;
4. the state should investigate a means of facilitating the transition of the affected towns resulting from the permanent shutdown of a nuclear power plant;
5. the Attorney General should review the Hannon and NRC Inspector General reports to evaluate NRC's failure to enforce its regulations;
6. the state should request the Connecticut Academy of Science and Engineering to study the health implications of the state's licensed nuclear power plants;
7. the state should investigate assigning a state resident observer at operating nuclear power plants to monitor the recovery efforts; and
8. the legislature should provide funding for the council's costs, including technical support for the council's work in monitoring the ICAVP and in and out-of-state travel and telephone expenses.

Recommendations for NU and others

1. NU should update the Final Safety Analysis Report (FSAR) and design bases analyses for each plant, including shutdown and restart criteria prior to the re-start of each plant;
2. NU should develop better procedures to provide clear and non-technical information to local officials when significant events occur (e.g. the Labor Day weekend incident at Connecticut Yankee).
3. Bernard Fox, NU's CEO, should be asked to attend a council meeting to: (1) inform the

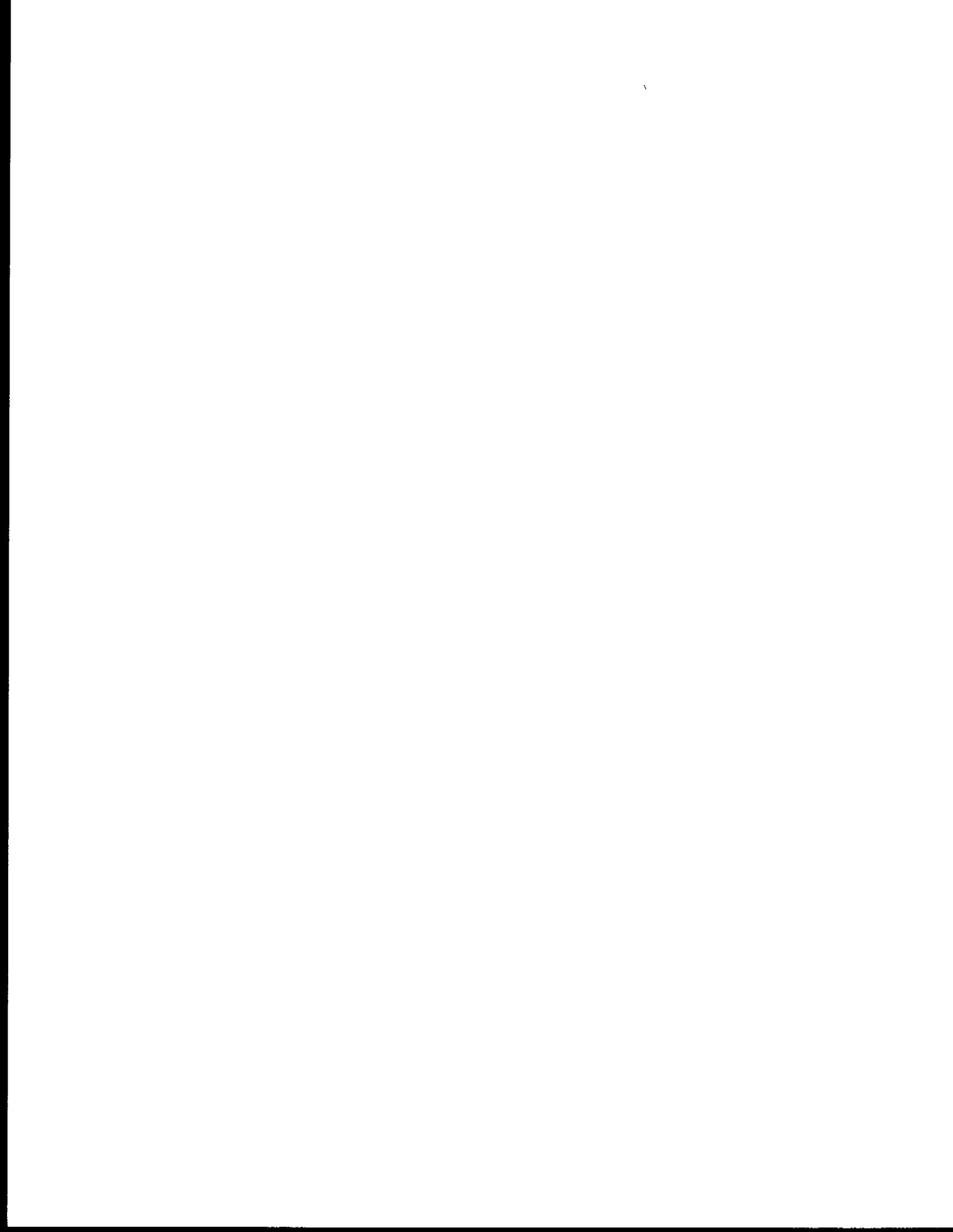
council of his views of how and why the current situation developed, (2) establish his responsibilities, and (3) answer questions from the council and the public.

PROPOSED TOPICS FOR CONSIDERATION

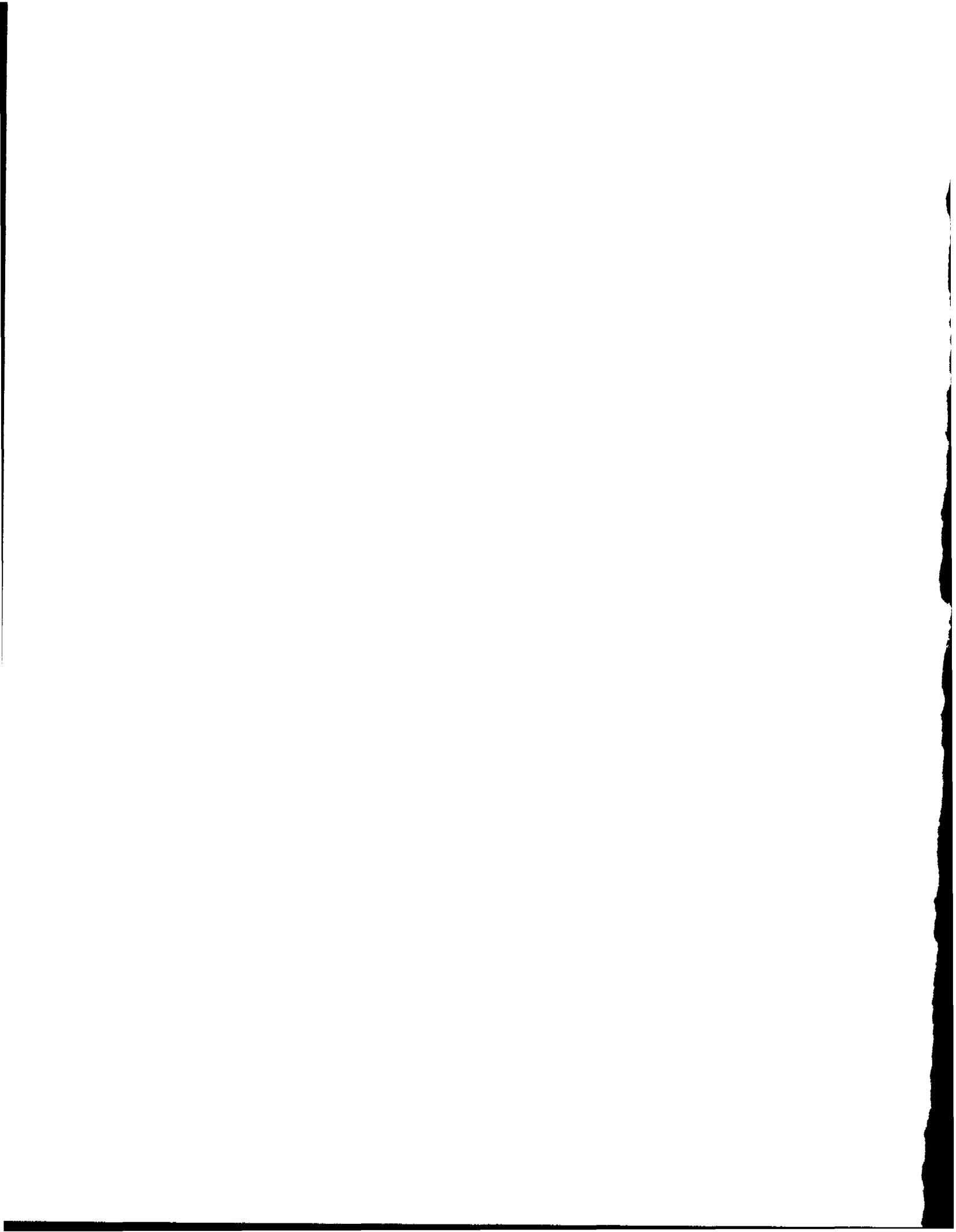
Members have proposed that the council address the following issues:

1. monitor Northeast Utilities' restart programs for Millstone 1, 2, and 3 including addressing the "punch list" of measures that must be completed for each plant, with an emphasis on health and safety matters;
2. monitor the Independent Corrective Action Verification Program;
3. monitor the response of NU and the NRC to concerns raised by current and former employees including the actions taken by the third party oversight organization;
4. review the NRC regulations regarding decommissioning, particularly with respect to public participation;
5. analyze the decommissioning of other plants to determine the lessons applicable to Connecticut, specifically with regard to the decommissioning of Connecticut Yankee;
6. review the economic analysis of Connecticut Yankee;
7. assist the legislature in the debate regarding the proposed restructuring (deregulation) of the electric power industry, particularly as it affects nuclear plant operations and safety;
8. monitor the status of DOE's process for siting a high-level waste storage and ultimate disposal facility;
9. determine the effect of new NRC evacuation criteria on local emergency preparedness planning;

10. study alternative energy sources and possible energy conservation measures;
11. review the release of potentially hazardous non-nuclear materials into Long Island Sound and the Connecticut River;
12. study how other plants have improved their performance to the point where the NRC has removed them from its watch list; and
13. ask to be included on the DPUC service list for its review of NU's prudence in operating its nuclear plants.



APPENDIX 1



Nuclear Energy Advisory Membership

Rep. Terry Concannon (Co-Chair), Haddam; BSc Biochemistry, Dublin, Ireland. Legislator, tax consultant.

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.

Trevor Davis, Jr., Haddam Neck; MBA U. of Hartford. Commercial real estate broker and investor.

Jelle Zeilinga DeBoer, Haddam; PhD, Harold T. Stearns Professor of Earth Science, Wesleyan University.

John Helm, Sr., Groton; MS Mech. Engineering, Columbia. Consultant, former experience includes nuclear submarine development.

Mark Holloway, Niantic; BS Interdisciplinary Sciences, Charter Oak. Task manager and analyst in nuclear submarine development.

John Markowicz, Waterford; BS engineering, Naval Academy. Economic development director, former Chief Engineer nuclear powered submarine.

Gregory Massad, East Lyme. Attorney.

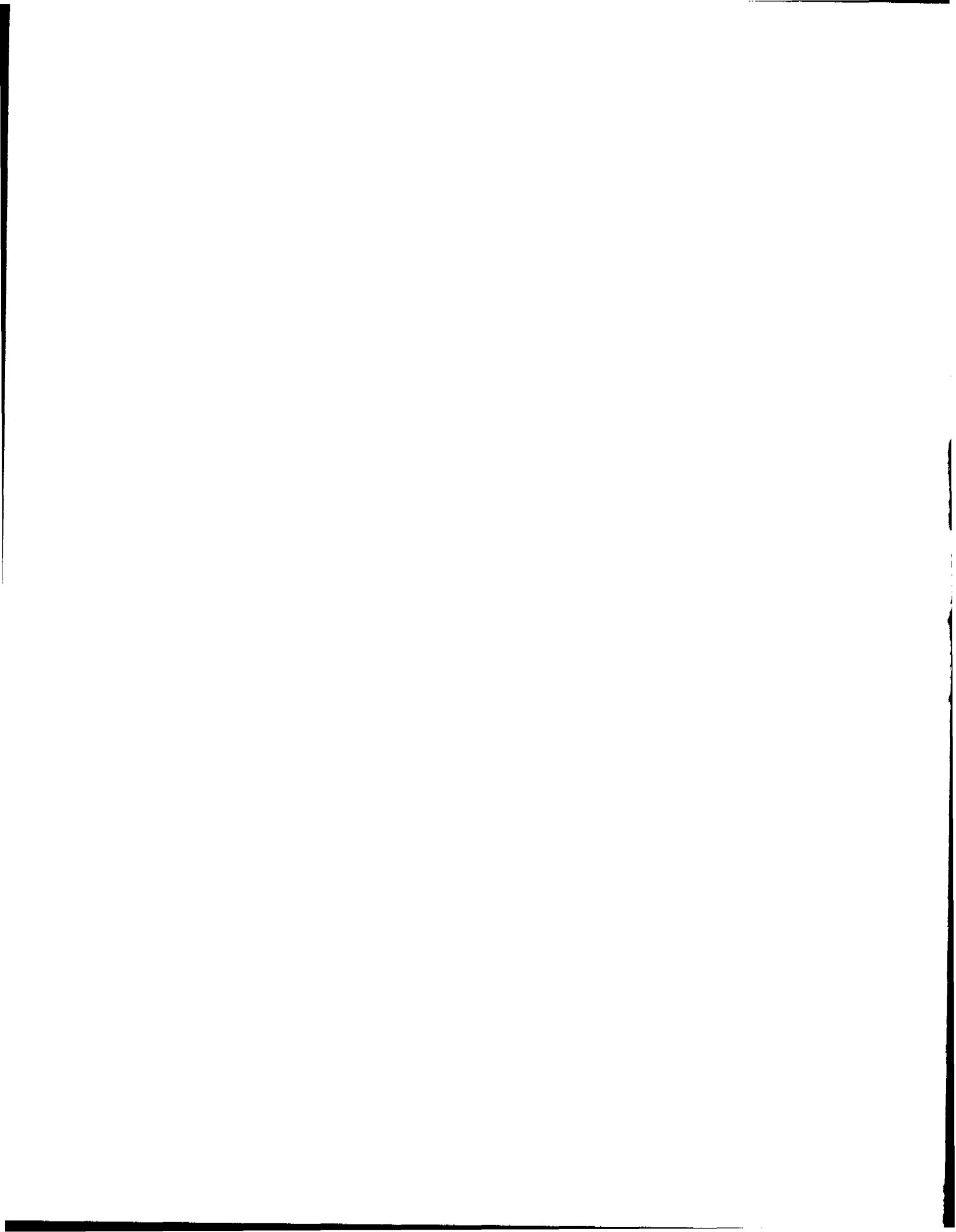
Kevin McCarthy, Ashford; Director, Monitoring and Radiation Division DEP.

Steve Percy, Waterford, BA Yale. Partner marine brokerage and commercial real estate, formerly Vice-President Sikorsky Aircraft.

Frank Rothen, Waterford; Vice President Work Services Northeast Utilities.

Butch Rowley, New London; BS, SCSU. Unit supervisor emergency dispatch center.

John (Bill) Sheehan, Waterford; MBA, Rensselaer Polytechnic. Dir. management information systems, former Captain nuclear powered submarine.



APPENDIX 2



Nuclear Energy Advisory Council (NEAC) Meeting
August 1, 1996
4:00 p.m.

Attendees:

Representative Terry Concannon, Temporary Co-Chairman, Appointed by the Speaker of the House, Thomas Ritter
Mr. Evan W. Woollacott, Temporary Co-Chairman, Appointed by Senator Della Eads
Mr. Gregory Massad, Appointed by Majority Leader Senator Fleming
Mr. John C. Markowicz, Appointed by the First Selectman of Waterford
Mr. Trevor Davis, Jr., Appointed by the First Selectman of Haddam
Mr. Richard Rowley, Appointed by House Majority Leader, Maura Lyons
Mr. John Helm, Sr., Appointed by Senator Della Eads
Mr. Steve Percy, Appointed by the Speaker of the House, Thomas Ritter
Mr. Mark Holloway, Appointed by Senator William DiBella
Mr. John (Bill) W. Sheehan, Appointed by the First Selectman of Waterford
Mr. Kevin T.A. McCarthy, representing the Commissioner of the Department of Environmental Protection, Sidney Holbrook

Representative Terry Concannon called the meeting to order at 4:05 p.m. on August 1, 1996, in the Legislative Office Building, Room 1B, Hartford, Connecticut.

She then introduced herself and Mr. Evan Woollacott as temporary co-chairmen. After a brief introduction by both co-chairmen, she requested each of the members of the council to introduce themselves and give a brief background. After the introductions, Rep. Terry Concannon handed out copies of a statement regarding the council and read the following:

"Nuclear Energy Advisory Council - August 1, 1996"

This council was created by the legislature in response to the concerns of the citizens of Connecticut, especially those who live in or near the towns in which the nuclear power generating facilities are located - Waterford and Haddam.

These concerns are primarily about the safety, health and well-being of the people of our state. In addition, there are the economic ramifications resulting from the shut-down of the 3 Millstone power plants and last week's shut-down of Connecticut Yankee in Haddam.

It is clear that the citizens have not been satisfied by the responses received from the Nuclear Regulatory Commission and Northeast Utilities. We, in the legislature, are not

satisfied either.

This council expects to provide a forum and to get the answers to the questions which people are asking. We plan to act as a credible conduit for transmitting all relevant information between the agencies and utilities to the residents of Connecticut and, vice versa.

I believe that we must reassure the public, addressing their confusion, concern and frustration.

This is not intended to be a 'witch hunt', but neither do we seek to provide a 'white wash' of the current situation which has resulted in moving the 3 Millstone plants to Category 3 - the only nuclear power plants in the country at this level.

We want answers. We want to transmit the answers to the public in a clear and understandable manner and we want to make a comprehensive and timely report to the General Assembly as required in January of 1997. This report will recommend to the governor and the general assembly the appropriate course of action to be taken in dealing with the issue of the nuclear power plants and their operation.

The Nuclear Energy Advisory Council will be ongoing, reporting to the legislature on an annual basis. Most importantly, the council will act as a neutral body, unaffiliated with the agencies and the utilities. Thus, I hope that we can attain the credibility needed in order to reassure the public.

I hope that each member of the council will assume a degree of ownership in the body so that our accountability is shared by all and we can achieve the goals with which we are charged in PA 96-245.

Enclosed, you will find a copy of Representative Concannon's notes.

She then introduced Mr. Evan Woollacott, Temporary Co-Chair for the NEAC. Mr. Woollacott handed out a draft document which addresses the statutory charge of the Nuclear Energy Advisory Council. He stated that what he tried to do was break down, in a list, the issues he felt the council would like to discuss.

The first part of the draft explained the administrative matters which would be taken care of later in the agenda. The other issues listed were the following:

- Compliance with operating license
- Response of NRC and NU to citizens concerns, timetable for re-start up of the plants. Why were the millstone plants moved to category 3?
- "Whistle Blower" status

- What is the status of each Millstone Plant and Connecticut Yankee? Can the plants be operated early in a start-up mode to assess any operational problems?
- High Level Nuclear Waste
- Evaluate effect of closed nuclear plants on the quality of life in Connecticut; health, economic development, power supply integrity, power demand growth trends in Connecticut and New England, and effect on cost of power in Connecticut

Mr. Woollacott also explained that he felt the council should work in conjunction with agencies of the federal, state and local governments, and with electric companies operating a nuclear power generating facility to ensure the public health and safety. He indicated the council should also identify representatives from government agencies like NRC, EPA, NEPOOL, Department of Environmental Protection (DEP), DPUC and the towns emergency response groups and establish appropriate contacts with utilities. He also suggested the council receive presentations from NEPOOL, DEP, DPUC and local town leaders and concerned citizens. Other issues to be discussed are proposed changes in, or problems arising from, the operation of a nuclear generating facility, such as tax revenues to the towns, including environmental credits. The council also needs to look at how communications are going with local communities, state and federal authorities and look at license extension possibilities and effects on towns and the state. He suggested meeting with the chief executive officers of both Northeast Utilities and United Illuminating Corp. to get appropriate written reports, retroactive and ongoing, and get on distribution lists. There is also a charge to review the current status of facilities with NRC. Mr. Woollacott wants to work to schedule a meeting with Dr. Shirley Jackson, Chairman of the NRC. The temporary co-chair requested questions or comments and/or ideas from the council.

An announcement was made that Dr. Shirley Jackson will be in Waterford on August 6, 1996. She will be meeting with the public and touring the plant. There will be an open forum at 3:00 p.m. at the Waterford Town Hall at which the public can ask her questions. The questions have to be submitted in advance (can be submitted at the meeting in writing). It was suggested that the council attend this forum in Waterford.

A suggestion made by Mr. Gregory Massad was for the council to receive a tour of the plant/facility which would be helpful in addressing the problems.

Mr. John (Bill) Sheehan stated his concern was on the subject of adequate training programs at Northeast Utilities. He felt the council needs to look into being able to be assured that Northeast Utilities have a continuing adequate training program for their personnel. Mr. Sheehan also suggested that they, as a council, should also look into the issue of what is going to happen with high-level nuclear waste.

Mr. Steve Percy stated his concerns were in two areas. The first concern is to receive assurance the plants are in compliance with the policies and procedures that are set forth with NRC, then the council can do something towards reestablishing the credibility of the plants. The second would be to find out more regarding the background of management and the adequacy training

programs.

Mr. John Markowicz commented the approach he would like to take regarding his participation on the council is public safety. He feels there are differences between administrative errors that are human in nature, and other errors that threaten the individuals in the state living in the environment of the power plant as well as others in the community. He stated in naval parlance what has occurred at the various sites in New England is that they have failed their operational reactor safeguard exams, which means the licensing authority has determined that the practices and standards that are being maintained at these sites are no longer satisfactory. Mr. Markowicz stated he believes that the participation of this council would hopefully be in an education mode. He felt it is important to understand that there is a difference between being not satisfactory on an operational factor safeguard exams and being a threat to public safety. He also stated that the councils focus should be on the aspect of the operation of the commercial nuclear power plants in the State of Connecticut and how they effect the public safety, and not some of the other issues that are more attuned to administrative protocols and do not effect public safety but do effect a licensing activity.

Mr. Trevor Davis stated he would like the council to first prioritize and find appropriate resources.

Representative Concannon then put the motion into elect a permanent chair for the Nuclear Energy Advisory Council. She did share that she would be interested in going forward as a co-chair with Mr. Evan Woollacott. The motion for Representative Terry Concannon and Mr. Evan Woollacott to be Co-Chairs of the Nuclear Energy Advisory Council was made, seconded and accepted.

Mr. McCarthy announced there will be a meeting Wednesday, August 7th, at 3:00 p.m. with NRC and Northeast Utilities. It will be held in the Leland F. Sillin, Jr., Nuclear Training Center, Millstone Nuclear Power Station, Power Plant Road, Waterford, CT. This meeting is to hold a public exit meeting with Northeast Utilities to discuss the root causes of problems identified from a staff evaluation of the handling of Millstone employee concerns/allegations during the past 10 years. Following the exit meeting, the NRC staff will be available to meet with the public and to receive comments and questions. It was requested copies be provided to the council from Mr. McCarthy. Attendance to this meeting was strongly suggested.

Mr. McCarthy also announced there will be another meeting on August 12, 1996, between 1:00 and 3:00 p.m. This meeting will be in Rockville, Maryland at the NRC headquarters to discuss methods of independent verification of the licenses corrective actions at Millstone Unit III. Mr. McCarthy stated that he just received a copy of the NRC Staff Issues Haddam Neck Inspection Report. He stated he would fax a copy of this report to the council Friday, August 2.

Representative Concannon requested scheduling future meetings. It was decided the next meeting was to be held in the Waterford area September 19, 1996 at 7:00 p.m. either at the

Waterford Town Hall or the school. The exact location will be arranged in the near future. A tour of the plant would take place before the meeting (approx. 2 ½ hours). Mr. Woollacott will look into scheduling this tour. Notification and information regarding these times and locations will be sent out as soon as they are arranged. It was also suggested that Mr. Fox, Mr. Feigenbaum, Mr. Busch, and Mr. Miller, of Northeast Utilities be available to answer questions at the September 19th meeting.

Mr. Helm suggested that the council communicate to Northeast Utilities, in advance, what they would like to see during the tour. An example of this would be a breakdown of a list of items/issues that have to be completed and the dates they should be completed. Mr. Woollacott was requested to write a letter with the questions, and appropriate comments to Northeast Utilities for the meeting. Mr. Woollacott also stated he would like to have information on Millstone I, II and the Haddam Neck Plant in addition to information associated with Millstone Unit III.

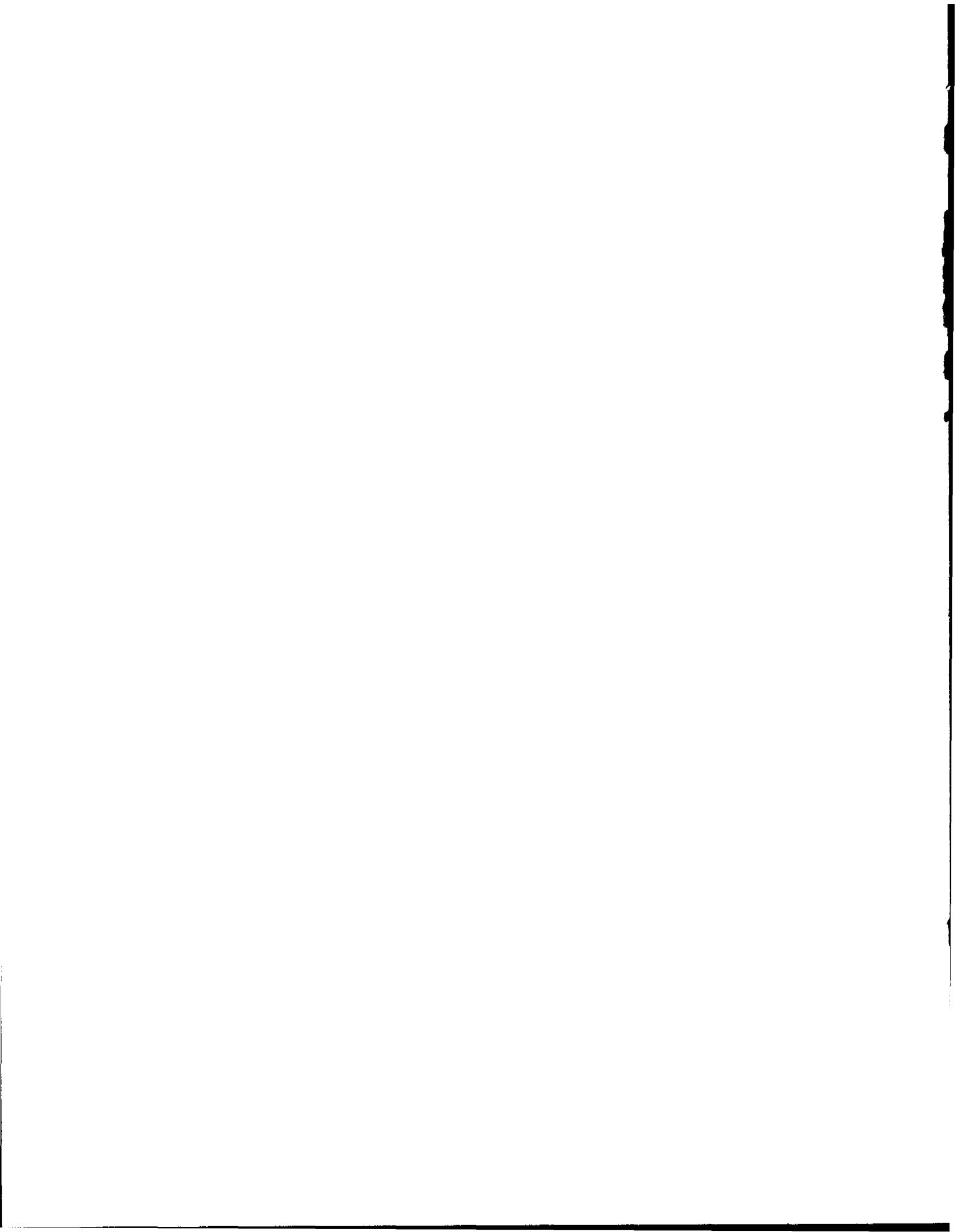
It was decided that the October meeting will be held on October 10, 1996.

Mr. Markowicz made a motion that the council have one spokesperson for the press and media. The motion was seconded and accepted.

Representative Concannon then requested if there was anyone from the public that would like to speak. The following member(s) of the public spoke to the attendees:

Mr. Paul Blanch from West Hartford, Connecticut

Representative Concannon made the motion to adjourn the meeting, this was seconded, accepted and the meeting adjourned at 5:50 p.m.



Nuclear Energy Advisory Council (NEAC) Meeting
September 19, 1996
7:00 p.m.

Attendees:

Representative Terry Concannon, Co-Chairman, Appointed by the Speaker of the House,
Thomas Ritter

Mr. Evan W. Woollacott, Co-Chair, Appointed by Senator Eads

Mr. Lawrence Brockett, Appointed by House Minority Leader, Robert Ward

Mr. Trevor Davis, Jr., Appointed by the First Selectman of Haddam

Mr. Jelle Zeilinga DeBoer, Appointed by the First Selectman of Haddam

Mr. Denny Galloway, representing the Commissioner of the Department of Environmental
Protection, Sidney Holbrook

Mr. John Helm, Sr., Appointed by Senator Eads

Mr. Mark Holloway, Appointed by Senator DiBella

Mr. John C. Markowicz, Appointed by the First Selectman of Waterford

Mr. Gregory Massad, Appointed by Majority Leader Senator Fleming

Mr. Steve Percy, Appointed by the Speaker of the House, Thomas Ritter

Mr. Frank Rothen, Appointed by the Governor of Connecticut

Mr. Richard Rowley, Appointed by House Majority Leader, Maura Lyons

Mr. John (Bill) W. Sheehan, Appointed by the First Selectman of Waterford

Invited Presenters:

Mr. Bruce D. Kenyon, President & CEO of Northeast Nuclear Energy Company

Mr. Ted C. Feigenbaum, Executive Vice President & Chief Nuclear Officer of Northeast Utilities

Mr. Mike Brothers, Unit Director - Millstone 3

Representative Terry Concannon, Co-Chairman of the NEAC called the meeting to order at 7:05 p.m. on September 19, 1996, in the auditorium of the Waterford Town Hall, Waterford, Connecticut.

She then introduced herself and Mr. Evan Woollacott as co-chairmen. After a brief introduction by both co-chairmen, she introduced each of the twelve members of the council. She also made an announcement that the next NEAC meeting will be held on October 10, 1996, at 7:00 p.m. at Haddam-Killingworth Regional District 17 High School, Little City Road, Higganum, Connecticut.

Rep. Concannon made a statement saying she expects the council to provide a forum and to get the answers to the questions which people are asking. She explained the council plans to act as a

credible conduit for transmitting all relevant information between the agencies and utilities to the residents of Connecticut and, vice versa. She stated she believes that the council must reassure the public, addressing their confusion, concern, and frustration. The co-chair explained that this is not intended to be a witch-hunt but neither do they seek to provide a white-wash of the current situation which has resulted in moving the three Millstone plants to Category 3 and also since the NEAC meeting held in August, Connecticut Yankee has been closed-down. Rep. Concannon then announced the council has asked members of the management of Northeast Utilities to make a presentation at this September meeting.

Rep. Concannon put the motion in to accept the NEAC Minutes of August 1, 1996. The motion was made, seconded and accepted. There was one correction asked to be made by Mr. Trevor Davis, Jr. to delete the word 'Neck' from the first page, on the line which states his appointment.

Mr. Evan Woollacott introduced Mr. Bruce Kenyon, President and CEO of Northeast Nuclear Energy Company. Mr. Kenyon then introduced the first speaker for Northeast Utilities, Mr. Ted C. Feigenbaum, Executive Vice President and Chief Nuclear Officer. Mr. Feigenbaum then made formal introductions of Mr. Kenyon, Mr. Mike Brothers and himself, briefly explaining what each presenter will be discussing.

Mr. Feigenbaum made the first presentation to the Nuclear Energy Advisory Council. This presentation explained the background of Northeast Utilities, unit status and the findings of the fundamental cause assessment team. Mr. Kenyon, the second speaker of Northeast Utilities, described and explained the issues of Northeast Utilities nuclear recovery organization; recovery of Connecticut's nuclear units; advantages of the new recovery organizations; and the timetable and what it will take to restart. Handouts of the presentation presented by Northeast Utilities were available to the council and other attendees.

Questions from the NEAC followed the first two Northeast Utilities presentation.

Mr. Rowley questioned the restructuring and reorganizing of the management of Millstone. He asked if the changes that have and will occur are going to get back closer to a time when things were o.k., in the 1970's or 80's. Mr. Kenyon answered that question by explaining that the Utility is going to shoot for their (Northeast Utilities) high standards. Standards that Northeast Utilities believes in, standards that are among the best in the industry. He explained that is why they are bringing in teams that are knowledgeable about current industry and best practices.

Mr. John Markowicz asked the presenters if the Northeast Utility Nuclear Recovery Organization is a permanent organization or if they plan to phase it out. Mr. Kenyon answered that question explaining that they called it a recovery organization but the organizational philosophy behind it is one that he believes will serve the company well for a long period of time. He stated that he believes the company plans it will continue and thus there are no plans to phase it out. Mr. Markowicz also asked if the on-loan executives will then be permanent, or how long will they be staying. Mr. Kenyon indicated that they will not be permanent, the individuals are contracted for

up to six months although that can be renewed by mutual agreement. But, it his intention to select unit officers before that six months period expires and thus they (Northeast Utilities) will be identifying their own individuals who will come in and gradually relieve the individuals who are on-loan from the utilities.

Mr. John Helm explained that he believes that in order for the organization to have gone in the direction that Northeast Utilities speakers described, there must have been some forces within the company that caused that to happen. He asked Mr. Kenyon if he has developed an understanding of these forces and has he determined whether those forces will not be allowed to be within this kind of organization in the future. Mr. Kenyon answered this question by saying he really didn't know the history of those forces. He also stated one of his concerns before coming to Northeast Utilities, was believing that he knew what needs to be done and whether he would be allowed to carry it out. Based on his discussions with the CEO and with key members of the board, he said he satisfied himself that he would be allowed to do what needed to be done or else he would not have excepted the job. So he believes whatever forces existed previously he doesn't believe they are applicable now.

Mr. Mark Holloway's first question was regarding the new leadership. He asked if Northeast Utilities was going to ask the ratepayers to absorb the costs through the DPUC. Mr. Kenyon answered by explaining the cost was the result of the Utility not doing things properly, and the ratepayers would not be asked to pay those costs. Mr. Holloway then explained that at one time he saw Millstone 3 had a punchlist with 2500 open items. Today he received an addendum to this list with an additional 39 items with descriptions of the 15 most significant. He asked what was happening with these lists and is the new team looking at these lists? Mr. Kenyon said they do continually look at these lists. He also explained Northeast Utilities expects these lists to grow as they continue the discovery phase of walking down the plant and reviewing documents. Mr. Holloway then asked if the 100 employees of Northeast Utilities that were laid off back in January are they going to be brought back. Mr. Kenyon said that there are no plans to hire these individuals back, but he stated there might be a need on an individual basis.

Co-Chair Terry Concannon then introduced Mr. Mike Brothers, Unit Director of Millstone 3 of Northeast Utilities. Mr. Brothers was the third speaker and he described the following: readiness plan; expectations for improvement; management issues; process and procedure; plant hardware and backlogs; restart criteria; what Northeast Utilities has done; Millstone 3 startup punch list breakdown; illustration of restart issue vs. non-restart issue; readiness plan control process; Millstone 3 ORP punchlist - summary; and future key milestones.

Questions from the NEAC followed Mr. Brothers presentation.

Mr. Evan Woollacott asked when they think Northeast Utilities will be in the position to develop a schedule to go online. Mr. Brothers said Northeast Utilities is planning to have a detailed schedule in approximately two weeks.

Mr. Bill Sheehan had a question pertaining to the training of Northeast Utilities employees. He questioned what Northeast Utilities was doing to keep the employees up to date when the plants become operational again. Mr. Feigenbaum explained their operational training continues as it has and routinely does during operations. He also explained they have increased their training in some areas as they recognize that certain programs need to be upgraded.

Mr. John Markowicz asked how the Institute of Nuclear Power Operations (INPO) fit into the Millstone 3 recovery effort fund. Mr. Feigenbaum explained INPO is a self-policing industry created organization that has been very helpful to Northeast Utilities. INPO routinely does plant evaluations with teams of 20 to 25. They recently have done a plant evaluation at Millstone station. INPO looks at specific areas and makes recommendations and comments for Northeast Utilities information and use. In addition to that, Northeast Utilities calls upon them for specialists' help. For example, if the Utility has a problem with a chemistry area or a work control planning area, INPO has often sent up groups of people to the various units to look at the situation and to help Northeast Utilities. Also, INPO publishes a lot of good information on how to organize, how to set expectations, policies for managers and other areas of operation. INPO also looks at and accredits Northeast Utilities training programs on an annual basis.

Mr. Greg Massad asked for examples of what the administrative deficiencies are. Mr. Brothers explained with an example of a table entry that is incorrect.

Co-Chair Terry Concannon asked while the Utility was discovering more for the punchlist, were they also making progress in deleting items on the punchlist. Mr. Brothers explained yes, Northeast Utility was deleting some items, but Northeast Utilities primary concentration at this time was on identification of these and more items.

Mr. Mark Holloway asked the Utility presenters to explain what vertical and horizontal reviews are. Mr. Brothers said, "a vertical review is a technique that the NRC and the Institute of Nuclear Power Operations uses to go through into a system to identify problems and drive those problems to the ground. A horizontal review is a broad cross sectional review of number systems from a top/down level. Typically looking at a large number of inputs".

Co-Chair Concannon asked what a walk-down is. Mr. Brothers said "a walk-down is a verification that the physically installed system is in accordance with the design basis".

Mr. Feigenbaum also described the Independent Corrective Action Verification Program (ICAVP); the history, establishment, status, selection criteria, and oversight team of ICAVP.

Co-Chair Concannon commented that members of this council have been invited to participate on the ICAVP. The NRC invited two members, so Mr. Woollacott and Rep. Concannon will be those two members. She requested alternates, because she believes it is going to be a comprehensive process and they feel that in order for them to have a presence, they should have four members. Representative Concannon announced it was decided Mr. Helm and Mr.

Markowicz will be the alternates to participate on the ICAVP.

Mr. Evan Woollacott asked what Northeast Utilities thought process was regarding selecting architect/engineers that are construction oriented to evaluate the operator end. Mr. Feigenbaum stated that the firm that is selected would have to have some operational background, with skills in that area. He stated, in the last few years the architect/engineering firms have moved into the area for supporting plant operations. This is because there has not been any new plants that have been built. The major firms that are still around, have employees who have worked in power plants and are intimately involved in the operation of supporting operations in plants. Also, the problems deal largely with final safety analysts reports with original documents.

Mr. Davis asked what the difference between what the ICAVP will do vs what the NRC will do. Mr. Feigenbaum explained what the ICAVP will be looking at is largely the failings in Northeast Utilities configuration management program and what Northeast Utility has done to be in compliance with the documentation. He believes the NRC will monitor that corrective action verification team.

Mr. DeBoer asked what Northeast Utilities will be doing regarding the external outreach to inform the general public. Mr. Feigenbaum stated Northeast Utilities has released reports to the public; reports regarding employee concerns, and reports on their configuration management program. They have tried to give information to the public about their problems, and they have been meeting routinely with the NRC in public forums to describe what actions that they are taking to deal with these issues. In addition to that, Northeast Utilities has been taking out local newspaper ads to talk about things going on at the station, in terms of programs and new organizations. They have also maintained the information centers at the plants.

Mr. Feigenbaum then addressed employee concerns / cultural issues, the FPI culture survey and results. He also addressed the employee concerns philosophy.

Co-Chair Concannon asked a question regarding the study that the board of directors of Conn. Yankee had asked Northeast Utilities to make with regard to leading a joint economic analysis of the viability of that plant going forward. Mr. Feigenbaum explained that this facility has about ten years of license life left in it and Northeast Utilities is doing that evaluation now. He explained there are a lot of issues to consider in terms of shutdown costs vs cost of running the unit. He stated the study should probably take to mid October time frame. He believes the board of directors would meet later in October to review that study and to begin to form some conclusion on the future of that unit.

Representative Concannon then requested if there was anyone from the public that would like to speak. The following members of the public spoke to the attendees:

(In order of appearance)

State Senator Melodie Peters, 20th District
Representative Andrea Stillman, Waterford
Don Del Core, Uncasville
Pete Reynolds, Waterford
Rosemary Bassilakis, Haddam
John McGuire, Waterford
David Silk, Stonington
Paul Blanch, West Hartford
Al Cizek, Higganum

It was decided that the November meeting will be held on November 7, 1996 in the auditorium of the Waterford Town Hall, Waterford, Connecticut.

Co-Chair Concannon made the motion to adjourn the meeting, this was seconded, accepted and the meeting adjourned at 10:55 p.m.

Nuclear Energy Advisory Council
October 10, 1996
7:00 p.m.

Attendees:

Representative Terry Concannon, Co-Chairman, Appointed by the Speaker of the House, Thomas Ritter
Mr. Evan W. Woollacott, Co-Chair, Appointed by Senator Eads
Mr. Lawrence Brockett, Appointed by House Minority Leader, Robert Ward
Mr. Trevor Davis, Jr., Appointed by the First Selectman of Haddam
Mr. Jelle Zeilinga DeBoer, Appointed by the First Selectman of Haddam
Mr. Kevin T.A. McCarthy, representing the Commissioner of the Department of Environmental Protection, Sidney Holbrook
Mr. John Helm, Sr., Appointed by Senator Eads
Mr. Mark Holloway, Appointed by Senator DiBella
Mr. John Markowicz, Appointed by the First Selectman of Waterford
Mr. Steve Percy, Appointed by the Speaker of the House, Thomas Ritter
Mr. Frank Rothen, Appointed by House Majority Leader, Maura Lyons
Mr. John (Bill) W. Sheehan, Appointed by the First Selectman of Waterford

Invited Presenters:

Mr. Wayne D. Lanning, Director, Millstone Oversight Team, NRC, Region I
Mr. Philip McKee, Director of Northeast Utilities Project Directorate, NRC, Region I
Mr. Eugene Imbro, Project Manager, NRC, Region I
Mr. Bruce Kenyon, President & CEO of Northeast Nuclear Energy Company
Mr. Ted C. Feigenbaum, Executive Vice President & Chief Nuclear Officer of Northeast Utilities
Mr. Gere LaPlatney, Unit Director of Connecticut Yankee

Representative Terry Concannon, Co-Chairman of the NEAC called the meeting to order at 7:10 p.m. on October 10, 1996, in the auditorium of the Haddam-Killingworth High School, Higganum, Connecticut.

Rep. Concannon made a brief statement pertaining to the news that was received on October 9, about the possibility that Connecticut Yankee will be unable to go on-line. She explained that they really don't now what lies ahead. It will take some time to assess the ramifications of the permanent shutdown of the Connecticut Yankee power plant. She explained that everyone thought the plant had another eleven years remaining before the expected decommissioning. She stated she is convinced that the residence can do it and do it together and after a degree of readjustment, they can make Haddam work for all of them. She also stated the agenda has been modified in order to allow for the changes that have occurred at Connecticut Yankee.

She then introduced herself and Mr. Evan Woollacott as co-chairmen of the NEAC. After a brief introduction of both co-chairmen, she introduced each of the twelve members of the council.

She then made a statement saying the council is charged with overseeing the health and safety of the citizens of Connecticut in the matters relating to the operation of the nuclear power plants. The council is to communicate with various agencies and be a liaison between Haddam, Waterford, and the

surrounding towns, and vice versa. The council is due to report to the Governor and General Assembly in January and every January thereafter. She explained the council plans to act as a credible conduit between all of the entities mentioned in the legislation. She added that they are not the governor's council; they were created by the legislature in response to the concerns of the citizens. The citizens are their constituents, though it is their intention to maintain their objectivity and independence in order to ensure their credibility. She also reiterated to the council members that a decision was made at their first meeting in Hartford, on August 1, 1996, that official communications on behalf of the council are to take place through the two co-chairs. If a council member wishes to express his personal opinions on related issues, he must make it clear that the opinions are his and his alone. She explained that this is important, especially when the media is involved because they can not afford to compromise the goals of the council. She also stated that she was also considerably angry and dismayed to learn that her name was used on some literature found in a number of public places, one being the Russell Library in Middletown. The subject of this piece was anti-nuclear in nature and the authors did not identify themselves. She said this was highly improper and she wanted to state for the record that she wants to maintain her objectivity in all aspects of their work and she will not allow herself to be represented as pro or anti-nuclear.

Co-Chair Concannon stated that the meeting will be divided into two parts. The first part will consist of presentations given by the Nuclear Regulatory Commission (NRC). The second part of the meeting would be Northeast Utilities making a presentation related to Connecticut Yankee. Following each presentation, there would be discussions with the council and then they would open the discussion to the public for questions and comments.

Representative Concannon made a motion to accept the NEAC Minutes of September 19, 1996. The motion seconded by Mr. John Markowicz, and accepted.

Co-Chair Concannon then introduced Philip McKee, Director of Northeast Utilities Project Directorate, NRC, Region I. Mr. McKee spoke about the general NRC's oversight activities. He then addressed some specifics of the oversight at Millstone and Connecticut Yankee. He explained the NRC oversight that the organization looks at the regulation and administration of power reactor licensees. The NRC headquarters is located in Rockville, Maryland and the principal function of that office is to direct licensing activities, licensing amendments, exemption requests and other things that could effect the license for the facility. He explained the NRC has a regional office that administers activities as they affect the plants in the Northeast. The regional office provides the support to the NRC's inspections at the facilities, event follow-ups, and have staff for investigations of various activities and general administrative day to day activities. He also explained they have resident inspectors who are located at each of the power reactor facilities. There are various numbers of inspectors depending on the number of units at a particular site.

Mr. McKee then spoke about the activities that are most specifically focused on licensee performance. The first is the NRC's inspection program. This is a program where the NRC provides inspection of licensing activities, programs and follow-up of events. Another element he mentioned was their performance indicators. The NRC headquarters has an Office of Analysis and Evaluation of Operational Data. This office collects information pertaining to reporting requirements, events and various activities that are reported in written reports and telephone reports. This office takes information from each of the units in the country and evaluates it, trends it, accumulates it, and creates reports that assists in the assessment of trends. Another function they perform is the systematic assessment of licensee performance. He explained that this is generally done and organized out of the regional office, but it is

intended to provide a periodic review of a facility's activities. The focus of the activity is putting the information together, integrating the information they receive and accumulate from their inspection programs, from their licensing activities, and from events that have occurred at the sites. He said another thing they look at is called the senior management meeting review.

Mr. McKee then gave a history on the evolution of their oversight function:

- Emphasis on regulatory compliance (Pre-1995);
- Stationing NRC inspectors at site (Initiated 1977);
- Systematic assessment of licensee performance (Initiated 1980)
- Senior management meetings (Initiated 1985)
- Emphasis on performance inspections (Mid 1980's)
- Increased focus on design process and team inspections (Late 1980's)
- Reduced emphasis on design-basis reconstitution based on industry voluntary activities (Early 1990's)

Mr. McKee then described certain areas in the last year at the Millstone and Connecticut Yankee facilities where NRC has initiated programs well beyond the NRC's normal programs.

- Millstone Oversight Team, with Wayne Lanning as the Oversight Team Director: 1) Team in place 2) Meetings with Public
- PD for Northeast Utilities
- Special Inspection Team: 1) Preparation 2) On-site 3) Report Prep 4) Reports (HN&MS)
- Employee Concern Review Group (Millstone): 1) Preparation 2) Interviews 3) Report Prep 4) Report
- ICAVP Oversight (Millstone): 1) ICAVP Order/Meetings 2) NRC Oversight
- Haddam Neck: 1) NRC Management Visit 2) AIT (Shutdown Cooling) 3) Enforcement Conference
- Spent Fuel Pool Petition (Millstone): 1) OI Report 2) Inspection/Report 3) Informal Public Hearing
- Review of Northeast Utilities Layoff Practice: 1) Conduct Interviews 2) Complete Review

He also covered the chronology of plant status and significant regulatory action that has occurred at the Millstone Station and Haddam Neck.

- 1991 - 1995 Millstone Station discussed at most Senior Management Meetings which are held semi-annually.
- 03/17/95 NRC Senior Management met with the Northeast Utilities Board of Directors to discuss Millstone Station performance.
- 08/21/95 Petition submitted, pursuant to 10 CFR 2.206, on behalf of George Galatis and 'We the People' requesting NRC take action based on allegations of licensee wrongdoing regarding spent fuel pool activities at Millstone Unit 1.
- 11/04/95 Millstone Unit 1 - Began refueling outage.
- 12/13/95 Millstone Unit 1 - NRC letter requiring confirmation of unit's conformance to license basis prior to restart.
- 01/29/96 Millstone Station - NRC letter designating all Millstone Station units Category 2 facilities.
- 02/20/96 Millstone Unit 2 - Unit shutdown due to HPSI being declared inoperable due to potential clogging of the throttle valves.
- 03/07/96 Millstone Unit 2 - NRC letter requiring confirmation of unit's conformance to

- 03/07/96 license basis prior to restart. Millstone Unit 3/Haddam Neck - NRC letter requiring Northeast Utilities to submit plans and schedules to assure compliance.
- 03/30/96 Millstone Unit 3 - Plant shutdown due to deficiencies identified with the auxiliary feedwater containment isolation valves.
- 04/13/96 Millstone Unit 3 - NRC letter requiring confirmation of unit's conformance to license bases prior to restart.
- 05/17/96 Haddam Neck - NRC letter requiring reassessment of whether Millstone Unit 1 root cause problems apply to Haddam Neck.
- 05/21/96 Millstone Station - NRC letter requiring Northeast Utilities to submit plans and identification of deficiencies prior to restart of each unit.
- 06/28/96 Millstone Station - NRC letter designating all Millstone Station units Category 3 facilities. Commission approval by vote required for startup of any unit.
- 07/23/96 Haddam Neck - Unit shutdown due to declaration that the CAR was inoperable due to a potential water hammer issue in service water supplying CAR fan coolers.
- 08/09/96 Haddam Neck - NRC letter requiring additional information addressing implications of NRC and Northeast Utilities identified degraded and non-confirming conditions on Haddam Neck operations.
- 08/14/96 Millstone Station - Confirmatory order issued requiring licensee to establish Independent Corrective Action Verification Program (ICAVP).

Mr. McKee then made a statement explaining the escalated enforcement actions at Haddam Neck and Millstone, between January 1, 1990 through September 3, 1996. There was one escalated enforcement action against Haddam Neck during this time frame; enforcement discretion was exercised (no notice of violation). There have been nineteen (19) escalated enforcement actions against Millstone; fifteen (15) resulted in civil penalties, for a total of \$1,223,750.00. These nineteen (19) actions resulted in 3 SL-II violations, and nineteen (19) SL-III violations.

Questions from the NEAC followed the first NRC presentation.

Co-Chair Evan Woollacott asked Mr. McKee to comment on what actions the NRC is taking to look at itself (self evaluation). Mr. McKee explained that because of the issues that have occurred, there is a lessons learned report that is being reviewed by the NRC. It will result in a significant number of activities. He explained a lot will be stemming from what the NRC found at the Millstone facility. Mr. Woollacott also commented that after listening to the public, there is a lack of trust not only towards Northeast Utilities, but also a lack of trust of the NRC. Mr. McKee commented that the NRC is trying to hold more public meetings and to make them open and have more participation from the public.

Mr. Holloway asked for an update about the August 21, 1995 petition that was submitted, pursuant to 10 CFR 2.206, on behalf of George Galatis. He stated that he understood from Dr. Shirley Jackson, Chairman of the NRC that a decision on that petition should be released sometime this month. Mr. McKee stated that he believes what was expressed is that the petition contains some technical matters, but also significant in the petition, are concerns regarding potential wrongdoing in activities. The NRC is looking at trying to address all the technical issues and to come up with what they call a partial decision on 10 CFR 2.206. He explained that some of the aspects, due to other ongoing activities involved in investigations and wrongdoing matters, can not done by the NRC until they get to a certain

point in the process. The NRC's goal in the next month or two is to get out a partial decision that will address, most all/or many of, the technical aspects and the performance aspects. The complete decision will not be reached until sometime in 1997.

Mr. Wayne D. Lanning, Director of Millstone Oversight Team, NRC, Region I, started his presentation regarding the NRC restart assessment plan for Millstone, focusing on Millstone Unit 3 as follows:

- Initial version issued September 12, 1996
- Systematic approach for restart recommendation
- Major Issues
 - 1) Root causes
 - 2) Programmatic issues: Corrective Action Program; Work planning and control; Procedure adherence and quality; Employee concerns
 - 3) Equipment performance: Design deficiencies; Address deferred list of deficiencies
 - 4) Self assessment: Quality assurance effectiveness; Management effectiveness; Staff assessment
 - 5) Enforcement: Significant enforcement pending; Corrective actions completed
 - 6) 50.54 (f) letters: Output from the CMP/ICAVP for restart issues; Meets license bases and regulations
 - 7) Operational Safety Team: "Independent"; Verify operators readiness to operate; Review preoperational testing results; Assess equipment condition to support operations; Verify compliance to technical specifications; Assess the maintenance and engineering backlogs
- Public, state and congressional representatives and other agencies input
 - Ongoing public meetings
 - Periodic meetings with the NEAC
 - Brief state, local and congressional officials
 - Coordinate with other federal agencies (EPA, FEMA, DOJ, DOL)
- Staff recommendation for restart
- Commission Vote
- Schedule decided by Northeast Utilities

Questions from the NEAC followed the first part of Mr. Lanning's presentation.

Mr. Markowicz had a question about the sequence of events. He questioned if the Operational Safety Team's (OST) plan on taking action, is concurrent with some of these events which are occurring, or if all prerequisites including completion of the ICAVP action are to be done before the OST kicks in. Mr. Lanning explained it is usually the last activity in the process. It follows after all the prerequisites, the corrective actions have been completed, and the licensee tells the NRC they are ready for restart.

Mr. Sheehan commented he is interested if the OST is looking at the "culture". He explained events in the recent past has made him feel there may be a cultural problem at Northeast Utilities and that the good habit of engineering practices and good sound safety decisions is not second nature anymore. He asked as part of Northeast Utilities evaluation, if are they going to look at how the key decisions are made and how they are documented. Mr. Lanning answered they will be including this into the overall assessment.

Co-Chair Concannon asked how many NRC personnel are involved in this process. Mr. Lanning explained there are approximately sixty to eighty NRC personnel working with Millstone Nuclear Power

Plant.

Mr. Gene Imbro, Project Manager, NRC, Region I, addressed the NEAC explaining the Independent Corrective Action Verification Program (ICAVP).

Purpose of ICAVP:

- Assist NRC in assessing the effectiveness of NNECO programs in identifying and correcting problems
- The NRC's ICAVP oversight will verify on a sample basis the thoroughness of the ICAVP review and the validity of the ICAVP conclusions

ICAVP Independence

- Reviewing organization: 1) No financial involvement with Northeast Utilities 2) No current involvement at the unit being reviewed
- Team members: 1) No financial involvement with Northeast Utilities 2) No prior involvement with the unit being reviewed
- Program conduct: 1) NRC to select systems for in-depth review 2) independent review conducted in the offices of the review organization 3) Communications protocols 4) Dual reporting of findings to NRC and NNECO 5) State and NEAC observation of NRC oversight

ICAVP attributes

- NRC will approve the ICAVP team and review plan prior to implementation
- Comprehensive review of selected systems will be conducted by an independent review organization
- Begin after NNECO has completed the problem identification phase of the configuration management program for approximately one-half the risk significant systems

ICAVP scope

- Original design for the unmodified portions of the selected systems
- All modifications made to the selected systems since initial licensing

NRC ICAVP oversight

- Review on a sample basis the material reviewed by the ICAVP contractor to verify their results/conclusions
- Public visibility of NRC oversight process: 1) State and Advisory Council invited to observe NRC team inspection process 2) Multiple NRC/NNECO meetings open to public: a) ICAVP process (09/24) b) Audit plan c) ICAVP Exit meeting d) Periodic status meeting
- Input to NRC's restart decision making process

Questions by the NEAC followed Mr. Imbro's presentation.

Mr. Sheehan asked what the ICAVP will be doing after Northeast Utilities has completed the problem in the identifications phase of the configuration management program for approximately one-half the risk significant systems. He also asked about fixing the problems and how do they assure themselves that the problem(s) have been fixed. Mr. Imbro explained they will not only assure that Northeast Utilities has identified the problems but also the ICAVP contractor, in the areas they look at will verify the accuracy of the corrective actions. Mr. Sheehan also questioned the NRC representatives about the coordination of the Operational Safety Team and the ICAVP. Mr. Imbro tried to clarify the overlap.

Co-Chair Evan Woollacott asked how they assess the operational readiness of the team the management has put together at Northeast Utilities. Mr. Imbro explained that the operational readiness of the team will be determined through observation. Mr. Woollacott also questioned the assessment of how management is looking toward those people with employee concerns. Mr. Lanning explained that Northeast Utilities is looking at the employee concerns problem as a restart issue. Northeast Utilities is going to have to demonstrate that progress is being made, such as employees being able to come forth with concerns to their supervisor without fear of retaliation.

Mr. Markowicz asked the NRC to explain the chain of command in the ICAVP process and to explain how this group is "Independent". Mr. Imbro stated that the independent contractor will be paid for by Northeast Utilities. Northeast Utilities will be selecting an organization to do this review. Once they select this organization, the contractor will obtain the documents they need to look at. The only reason they will have any interaction with the facility is for clarification or verifying something they do not understand. The NRC will be overseeing the contractor. He explained in terms of independence, once the scope of review is selected by the NRC, the contractor will be going forward and living up to the contract.

Mr. Trevor Davis explained in the NEAC's last meeting they heard that Northeast Utilities, in a sense, came clean, mistakes have been made. Also, they listened to the changes Northeast Utilities have and will be implementing. He asked for the NRC to address the changes that they plan to implement in their oversight process. Mr. Imbro addressed this question by stating there have been a lot of things happening within the NRC, especially since the Millstone and Haddam Neck issues. One example he gave was they will increase their focus on compliance of the Final Safety Analysis Review (FSAR). He addressed the design problems. He explained there are numerous changes going on within the NRC. He also indicated that the agency has been embarrassed and realize they have to regain their credibility.

Mr. Holloway addressed the question on the number of systems involved in Millstone Unit 3, approximately 223. He asked how many systems will be looked at. The NRC stated it has not decided how many will be looked at. They explained they are trying to focus on the systems that are risk-significant of which there is a population of 82.

Mr. Sheehan commented that maybe to ensure the independence of the ICAVP, they might want to have the contractor pick the systems and then the NRC can check on the systems they picked. He asked the NRC if the basis of the design of the plant is in the final safety analysis review. He questioned if that document will be reviewed by both Northeast Utilities and the NRC to ensure it is correct. Mr. Lanning explained that it is his understanding that Northeast Utilities is doing a very thorough review of the FSAR and the NRC is also planning to review this document also.

Mr. Lanning then presented the NRC activities at Haddam Neck.

- Pre-shutdown activities: 1) First 50.54(f) letter (03/96) 2) Significant team inspection findings 3) Second 50.54(f) letter (05/96)
- Unit shutdown: 1) Significant/complex design discrepancies 2) Senior NRC management site visit 3) Third 50.54(f) (08/96)
- Nitrogen bubble in reactor vessel: 1) Safety-significant event (09/96) 2) Aggressive NRC response 3) Increased NRC concerns
- Current NRC activities: 1) Increased NRC oversight 2) Aware of economic analyses 3) Maintaining restart list 4) Extended SALP period 5) Predecisional enforcement conference on

October 18, 1996

Mr. Markowicz asked, does the NRC increase their oversight at Haddam even though the plant is shutdown? Mr. Lanning explained yes, in spite of the preliminary results of the economic analysis there is still a very important function to ensure reactor safety during this refueling evolution.

Representative Concannon then requested if there was anyone from the public that would like to speak. The following members of the public spoke to the attendees:

(In order of appearance)

Rosemary Bassilakis, Haddam
Lewis Goldberg, Haddam
Harvey T. Clew, Haddam
Paul Blanch, West Hartford
Sal Mangiagli, Haddam
Charlie Luxton, Waterford
Billie Staub, Niantic
Gerald Winslow, Waterford
Susan Luxton, Waterford
Jim Newberry, New Haven
Cate Lassen, Higganum
Joe Delaney, New Haven
Gary Verdone

Mr. Bruce Kenyon, President & CEO of Northeast Nuclear Energy Company and Affiliates made a brief introduction to the attendees and then made a report on Connecticut Yankee's economic analysis. He then explained that in September, the decision was made by the owners of Connecticut Yankee to do an economic analysis of the plant. That analysis has been preceding as was reported on October 9. The owners met, not as a board, but simply as owners, for an update. The status of the economic analysis was reviewed and, as they reported, there was a strong consensus that the analysis was not favorable. There are a lot of factors that go into an analysis of this nature. He stated a key consideration in the analysis was the fact that estimates show that there is less expensive power available. He emphasized the final decision has not yet been made, but he really does not expect the preliminary decision to change.

Mr. Markowicz asked Northeast Utilities to discuss the "bubble" problem, and to try to convey to the attendees their views of the seriousness what happened and the action they have taken to prevent those events from happening again. Mr. Kenyon stated that he considered it a very serious incident. The safety margins were clearly degraded. The incident was investigated by them and by the NRC. He reviewed their report, and based on what he saw, it confirmed in his mind that the event was serious.

Mr. McCarthy commented that Northeast Utilities management indicated that this event was not a technical problem and that the operators understood the systems and the seriousness. He asked how long it took them to recognize the serious nature of that incident and when did they report it to the NRC or other reporting agencies? Mr. Jere LaPlatney, Unit Director of Connecticut Yankee answered that the operator's events were initiated on Thursday, verbally to the NRC on-sight that day. Sunday, there was a conference call with regional management.

Mr. Sheehan asked if they are planning to look at the Millstone plants to make sure what has happened at Connecticut Yankee could not happen there. Mr. Ted Fiegenbaum, stated that the report that Mr. Kenyon referred to (about the detail on root-cause evaluation in six various problem areas) has been distributed to all the directors within the company, at Millstone I, II, and III, and Seabrook. He indicated that the report will be thoroughly reviewed.

Rep. Concannon asked about the refueling process. She asked how far along was Connecticut Yankee in this refueling? Mr. LaPlatney, stated that they were at the point of making the final disconnections of the reactor vessel head.

Mr. Jere LaPlatney then made a presentation, first explaining Connecticut Yankee's ownership. He then described the unit status:

- Connecticut Yankee operated for 359 consecutive days
- Management directed unit shutdown on July 22, 1996 - 1) concerns with operation of a containment air recirculation fan in a hypothetical accident scenario
- Connecticut Yankee transitioned to refueling outage mode six weeks ahead of original schedule
- Updated economic analysis began in late August
- NRC Augmented Inspection Team (AIT) report presented in October 1, public meeting

Northeast Utilities's response to recent NRC findings:

- We concur with recent NRC inspection reports and findings, which confirm our internal self-assessments
- Our actions and operating standards at Connecticut Yankee were unacceptable
- Even though shutdown appears likely, we still must address all the issues identified by the NRC which are relevant to a shutdown
- There was an unacceptable reduction in safety margin which we will not tolerate
- A team of industry experts will be assisting us during core off-load activities at Connecticut Yankee

Near-Term activities:

- Recent NRC findings will be factored into all upcoming work activities at Connecticut Yankee
- Focus will be on doing a superb job of maintaining all systems needed for a safe and efficient shutdown of the unit
- First major evolution will be the off-load of all fuel assemblies from the reactor core

Connecticut Yankee unit director perspective

- If the final decision is made to close Connecticut Yankee, the priorities will be:
 - Maintaining the plant in a safe shutdown condition
 - Treating employees fairly and equitably
 - Continuing our commitment to be a good neighbor in the local communities

Representative Concannon then requested if there was anyone from the public that would like to speak. The following member of the public spoke to the attendees:

(In order of appearance)

Lewis Goldberg, Haddam
Steven Rocco, Haddam
Rosemary Bassilakis, Haddam
Skip Maillett, Niantic

Dave Collins, Middletown

It was announced that the November meeting will be held on November 7, 1996 at 7:00 p.m., in the lower level meeting room in the Waterford Town Hall, Waterford, Connecticut.

Co-Chair Concannon stated that she has been asked for the council members resumes by the board of trustees of Northeast Utilities. She asked the council members to indicate whether they had a problem with the request and, if not, to give her copies of their resumes at their earliest convenience.

A motion was made by Mr. Sheehan to draft a letter to Dr. Shirley Jackson, Chairman of the NRC stating the NEAC understanding of her remarks in Waterford on August 6, 1996 and to ask for comment. This motion was seconded by Mr. Helm and accepted by the council.

Co-Chair Concannon made the motion to adjourn the meeting, this was seconded, accepted and the meeting adjourned at 11:10 p.m.

Nuclear Energy Advisory Council

November 7, 1996

7:00 p.m.

Attendees:

Representative Terry Concannon, Co-Chairman
Mr. Evan W. Woollacott, Co-Chairman
Mr. Lawrence B. Brockett
Mr. Trevor Davis, Jr.
Mr. Jelle Zeilinga DeBoer
Mr. Denny Galloway, representing the Commissioner of the Department of Environmental Protection, Sidney Holbrook
Mr. John Helm, Sr.
Mr. Mark Holloway
Mr. John C. Markowicz
Mr. Steve Percy
Mr. Frank Rothen
Mr. Richard Rowley
Mr. John (Bill) W. Sheehan

Invited Presenters:

Ms Rosemary Bassilakis, Citizen's Awareness Network (CAN)
Mr. Paul M. Blanch, Energy Consultant
Ms Susan Perry Luxton, Citizen's Regulatory Commission (CRC)

Mr. Evan Woollacott, Co-Chairman of the NEAC called the meeting to order at approximately 7:00 p.m. on November 7, 1996, in the Waterford Town Hall, Waterford, Connecticut.

Mr. Woollacott then introduced the first presenter Susan Perry Luxton, from the Citizen's Regulatory Commission (CRC). Ms Luxton explained that the group, formed in August 1995, consists of concerned citizens with approximately four hundred members. She then stated that this group has existed for approximately fifteen months and during this time the main issue has boiled down to truth and the lack of it and trust and the loss of it in their community. Ms Luxton handed out a copy of her presentation to the NEAC. Please see attached. Ms Luxton then explained the following CRC recommendations to the NEAC regarding what they would like to see done and resolved prior to the Millstone Nuclear Power Plants restart.

- Documented proof of Northeast Utilities accountability to the public to prove that the removal of all negative management attitudes responsible for the negative culture that has been in place, has been accomplished, not just words to say that it is gone.
- Documented proof of the NRC accountability to the public to prove that the cultural change has occurred. To replace all NRC, Region I management responsible for the lack of enforcement. Also, replace all the Millstone and Connecticut Yankee resident inspectors that were involved.
- Resolution of all "whistle blower" nuclear concerns, and documented proof that the nuclear safety concerns program which Northeast Utilities is implementing is

accomplishing its safety goals.

- Resolution of all ongoing investigations; criminal, NRC, DEP, EPA and NU internal investigations.
- Resolution of all 10 CFR 2.206 petitions.
- The NRC to provide a spent fuel pool risk assessment on all Millstone units as they presently exist.
- Request from Northeast Utilities a break down of all outage costs since October 1994 with the intent of determining the cost to be shouldered by the rate payer.
- Demand public input and involvement in the planning and implementation of the CY decommissioning.
- Change the ICAVP process to allow a truly independent team to oversee the restart process.
- To have an oversight body that oversees the NRC and ensures that they do the proper enforcement job they are charged with.
- NEAC should propose to Governor Rowland and the Connecticut Legislature that a study be done on ways to reduce Connecticut's dependence on nuclear energy through conservation, energy efficiency and the use of renewable energy sources.
- NEAC should review at least five years of NRC inspection reports concerning Millstone and CY. Additionally, it should interview and take testimony from as many "Whistle Blowers" as possible prior to making any reports.

Mr. Evan Woollacott opened the floor for questions to Ms Luxton.

Mr. Markowicz asked Ms Luxton if she has had any discussions with people in other states and if she has, does she know how other state governments deal with NRC or their utilities. Mr. Blanch responded by giving some examples that Massachusetts has a full-time nuclear engineer and Vermont also has a person who reports to the Governor's office on nuclear issues.

Mr. Woollacott then introduced Ms Rosemary Bassilakis, a representative from the Citizen's Awareness Network (CAN). Ms Bassilakis started her presentation by stating that CAN has over one thousand members nationwide. She also explained that the network formed due to the concern of local citizens about the age-related problems with the Yankee Atomic nuclear reactor in western Massachusetts and because the NRC allowed the reactor to operate outside of compliance. Ms Bassilakis then put up a transparency and explained an example of a pressurized water reactor. She then explained that the closure of Yankee Atomic caused CANs struggle to seek pollution reduction and prevention in the process for decommissioning nuclear reactors. Two issues that Ms Bassilakis addressed were her concern about the decommissioning of CY and the spent fuel rods. She concluded that public participation is truly a must. The experimental nature of nuclear power decommissioning and waste storage must be recognized. She also encouraged NEAC to get involved in decommissioning as well as in the operating power reactors.

Mr. Evan Woollacott then introduced Mr. Paul Blanch. Mr. Blanch made a presentation regarding a perspective on Millstone recovery. Mr. Blanch provided a copy of his presentation to the council. Please see attached. Mr. Evan Woollacott then opened the floor for the council to ask any questions they may have for Mr. Blanch.

Mr. Markowicz asked if there was an NRC rule/statute that protects the "whistle blowers." Mr.

Blanch explained there is a regulation. Part of this regulation states you cannot retaliate against people who are involved in protective activities.

Mr. Steve Percy asked Mr. Blanch to give an example of one of his recommendations that would 'gain public confidence with openness' relating strictly to Northeast Utilities. Mr. Blanch stated that he has seen some improvement already by seeing Mr. Bruce Kenyon speak at the NEAC meetings. He also stated he felt Mr. Kenyon should also sit down and speak with the public.

Mr. Trevor Davis asked Mr. Blanch for more specific recommendations for the NRC. Mr. Blanch explained he really was only able to give an overview and did not really get into detail during his presentation. But, he did state what is really needed is for the NRC to diligently enforce their regulations.

Mr. Evan Woollacott then announced the rest of the meeting will be a work session for the NEAC. He made a motion to accept the NEAC Minutes of October 10, 1996. The motion was seconded and accepted.

The date and location of the next meeting was decided to be held on December 12, 1996 at the Community Center in East Lyme, at 7:00 p.m. Mr. Butch Rowley will be making the arrangements for this meeting. **[NOTE: Location for the December 12, 1996 meeting has been changed. Please see attachment for new location.]**

Mr. John Markowicz suggested the NEAC retrieve the evacuation updated report. Also, Mr. Mark Holloway informed the NEAC that the NRC issued some proposed changes in July, concerning their evacuation strategy. He said he has obtained a copy of this proposal and he will mail it to the council members.

Mr. John Markowicz requested and suggested that FEMA make a presentation on current evacuation plans for Millstone and Connecticut Yankee; lessons learned from the most recent exercises and any commentary they would like to make on the proposed NRC report. Mr. Jelle DeBoer also requested and suggested getting an explanation of how the communication should have occurred relating to the incident at Connecticut Yankee the week on Labor Day. It was decided they would ask Northeast Utilities to send the protocol to the council before the next NEAC meeting. Mr. Denny Galloway stated he would arrange for the presentations from Northeast Utilities regarding Connecticut Yankee and the presentation from FEMA for the next NEAC meeting in December.

Representative Terry Concannon explained that the NEAC involvement in the selection of the *Independent Corrective Action Verification Program (ICAVP)* organization is apparently quite urgent. She suggested that one of the topics that should be discussed at this meeting is the appointment of a subcommittee that would review the independence aspect of the process where-by the ICAVP organization is selected.

Mr. Bill Sheehan made a motion that a subcommittee be formed to review the selection process of the ICAVP, that the subcommittee chairman be authorized to be the direct liaison with Northeast Utilities and the subcommittee then report back to the NEAC. The motion was seconded by Mr. Steve Percy and accepted.

Mr. Jelle DeBoer made a motion that Mr. John Helm, Sr. be appointed a member of the subcommittee. The motion was seconded and accepted.

Mr. Trevor Davis made a motion that Mr. Mark Holloway be appointed a member of the subcommittee. The motion was seconded by Mr. Butch Rowley and accepted.

Mr. Evan Woollacott asked Mr. Jeff DeLoche, an attendee representing Northeast Utilities, for a quick summary of where Northeast Utilities was in the selection process of the ICAVP. Mr. DeLoche explained that they have completed the evaluation of the three companies. He also stated Mr. Kenyon is planning to brief the council and/or subcommittee to review the process Northeast Utilities has gone through.

Mr. Evan Woollacott made a motion that Mr. Paul Blanch be appointed a member of the subcommittee. The motion was seconded and accepted.

Mr. John Markowicz made a motion that the subcommittee be limited to assessing, the independence of the selected team solely on the basis of the proposals and other presentations. The motion was seconded by Mr. Bill Sheehan and accepted.

Mr. Mark Holloway made a motion that Mr. John Markowicz be appointed a member of the subcommittee. The motion was seconded by Mr. Trevor Davis and accepted.

Mr. John Markowicz made a motion that Mr. George Kee, of Waterford be appointed a member of the subcommittee subject to his acceptance. The motion was seconded by Mr. Bill Sheehan and accepted.

Mr. Bill Sheehan made a motion that Mr. John Helm, Sr., be temporary acting chair for the first subcommittee meeting. The motion was seconded by John Markowicz and accepted.

October 24th order issued by the Office of Nuclear Reactor Regulation, 'REQUIRING INDEPENDENT, THIRD-PARTY OVERSIGHT OF NORTHEAST NUCLEAR ENERGY COMPANY'S IMPLEMENTATION OF RESOLUTION OF MILLSTONE STATION EMPLOYEES' SAFETY CONCERNS.' Mr. Bill Sheehan made a motion for Co-Chair Terry Concannon to draft a letter to the NRC to request approval that the council be included with the NRC and Northeast Utilities as a party to which the independent third-party reports to on a quarterly basis, the results of its oversight activities, including all findings and recommendations (IV.2). The motion was seconded by Mr. Mark Holloway and accepted.

Discussion was held on the interim report to the legislature. Mr. Woollacott provided the council with an outline of the report to the legislature. It was decided that the council members review this outline and make any changes or comments on this outline and get them to Mr. Woollacott by the following Friday.

Co-Chair Concannon recommended the council address the area of fiscal expense reimbursement in the report to the legislature.

Co-Chair Concannon made the motion to adjourn the meeting. This was seconded, accepted, and the meeting was adjourned.

Nuclear Energy Advisory Council

December 12, 1996

7:00 p.m.

Attendees:

Representative Terry Concannon, Co-Chairman
Mr. Evan W. Woollacott, Co-Chairman
Mr. Lawrence B. Brockett
Mr. Trevor Davis, Jr.
Mr. Jelle Zeilinga DeBoer
Mr. Kevin T.A. McCarthy, representing the Commissioner of the Department of Environmental Protection, Sidney Holbrook
Mr. John Helm, Sr.
Mr. Mark Holloway
Mr. John C. Markowicz
Mr. Steve Percy
Mr. Frank Rothen
Mr. Richard Rowley
Mr. John (Bill) W. Sheehan

Representative Terry Concannon, Co-Chairman of the NEAC called the meeting to order at approximately 7:10 p.m. on December 12, 1996, in the auditorium of the Waterford Town Hall, Waterford, Connecticut.

She then opened the floor to the public. The following members of the public spoke to the attendees:

(In order of appearance)

Senator Melodie Peters
Mr. Charlie Luxton, Waterford
Mr. Marshal Bernhardt, Groton
Ms Mary Kuhn, Waterford
Ms Diane Scully, Niantic
Ms Pati Harper, Niantic
Mr. Paul Blanch, West Hartford
Ms Lois Bailey, Norwich
Ms Rosemary Bassilakis, Haddam, Citizen's Awareness Network (CAN)
Mr. Peter Reynolds, Waterford

Co-Chair Concannon made a motion to accept the NEAC Minutes of the November 7, 1996 meeting. The motion was seconded by Mr. Steve Percy, and accepted.

Co-Chair Concannon then asked for the recommendations from the NEAC ICAVP subcommittee. This subcommittee was approved at the November 7, 1996, NEAC meeting to review the selection process of the Independent Corrective Action Verification Program

(ICAVP). Mr. John Markowicz explained that the subcommittee met on November 14, and received verbal presentations from Northeast Utilities representatives regarding the process where by a selection was made of an ICAVP contractor. He explained the subcommittee reports/recommendations to the NEAC as follows:

1. The subcommittee considers the ICAVP contractor selection process to have been nominally in procedural compliance with NRC Confirmatory Order dated August 14, 1996. But, not in compliance with ICAVP Independence as defined on Page 3 of Gene Imbro, NRC staff, presentation on September 24, 1996.
2. However, financial and procedural entanglements between the selected ICAVP contractor and Northeast Utilities remain unresolved and undermine even the appearance of independence considered by the subcommittee to be expected and warranted; public trust in the actions of the NRC and Northeast Utilities will not be improved.
3. The Governor's office and Connecticut's Washington delegation should be requested to ask the NRC to respond to NEAC's October 22, 1996 letter request to Chairman Jackson from modification of the ICAVP process to include a third independent entity in the ICAVP process, in accordance with Chairman Jackson's promise to the public in Waterford, Connecticut on August 5, 1996.
4. The ICAVP contractor be required to provide periodic briefings to the NEAC and public.

Co-Chair Concannon asked if the word 'activity' could be modified/changed in #3 of the recommendations. This word was decided to be changed to 'process'.

Mr. Bill Sheehan made a motion for the co-chairs of the subcommittee to be authorized by the council to communicate to the Governor, the Congressmen and Senators. This communication should request that they send a letter to Chairman Jackson, NRC, requesting a response to the NEAC letter dated October 22, 1996 concerning the modification of the ICAVP process. The motion was seconded by Mr. Butch Rowley and accepted.

Co-Chair Concannon then introduced Mr. Kevin E. McCarthy, Principal Analyst of the Office of Legislative Research. She explained that he is helping the council to prepare the report to the legislature. Mr. McCarthy then reviewed with the council members the draft of the report as required by PA 96-245.

Co-Chair Concannon made the motion to adjourn the meeting. This was seconded, accepted, and the meeting was adjourned.

Nuclear Energy Advisory Council

January 9, 1997

6:00 p.m.

Attendees:

Representative Terry Concannon, Co-Chairman

Mr. Evan W. Woollacott, Co-Chairman

Mr. Trevor Davis, Jr.

Mr. Jelle Zeilinga DeBoer

Mr. Kevin T.A. McCarthy, representing the Commissioner of the Department of Environmental Protection, Sidney Holbrook

Mr. John Helm, Sr.

Mr. Mark Holloway

Mr. John C. Markowicz

Mr. Steve Percy

Mr. Barry Ilberman, representing Mr. Frank Rothen

Mr. Richard Rowley

Mr. John (Bill) W. Sheehan

Mr. Kevin E. McCarthy, Principal Analyst of the Office of Legislative Research

Representative Terry Concannon, Co-Chairman of the NEAC called the meeting to order at approximately 6:10 p.m. on January 9, 1997, in Room 1C of the Legislative Office Building, Hartford, Connecticut.

Co-Chair Concannon called for a motion to accept the NEAC Minutes of the November 7, 1996 meeting. Mr. Bill Sheehan made the motion to accept, it was seconded by Mr. John Helm, and accepted with the exception of one spelling amendment in the name "Bernhardt".

Co-Chair Concannon then announced there will be a public meeting on January 15, 1997, at 7:00 p.m., in the Haddam-Killingworth High School, Higganum, Conn., regarding decommissioning. The Nuclear Regulatory Commission (NRC) will explain their decommissioning requirements at the meeting.

Co-Chair Concannon then reminded the council about Mr. Paul Blanch submitting and addressing a letter on the subject of upcoming civil penalties for Northeast Utilities at the December 12, 1996 meeting. She commented that Mr. Blanch had suggested that the council might want to request that a portion of the penalties be used to further nuclear safety and energy conservation within the State of Connecticut. She explained that last week she had a meeting with representatives from Senator Dodd's office during which they said that there is interest at the federal level in seeing that the monies don't go into the federal general fund, but that they would be used for another purpose. Mr. Evan Woollacott suggested that a letter be written with a recommendation to the NRC that the monies be given to the State. He also said that Northeast Utilities be required to list the activities that they would be doing to benefit public health and safety and submit it to the NRC for approval with a copy to the NEAC for review and comment. Mr. Sheehan requested that the letter state nuclear health and safety and environmental

considerations in and around the nuclear plants instead of just public health and safety. Rep. Concannon suggested the council draft a letter to our federal representatives asking them to look into this issue. Mr. Rowley made a motion to draft a letter to our federal representatives, the motion was seconded by Mr. Bill Sheehan, and accepted. Mr. Evan Woollacott stated he would draft this letter for the NEAC.

Mr. Holloway explained to the council members the reason they did not meet in East Lyme for this meeting was because East Lyme requires an insurance waiver submitted to the town, indicating that the State of Connecticut has a policy to cover any liability. An acceptable alternative is to have one of the council members appear before the First Selectman at a selectmen's meeting and request a liability waiver. He stated that he could approach the town to request a waiver for future meetings.

Co-Chair Concannon also commented that the draft report from the NEAC ICAVP Subcommittee has been completed. She explained the next step is to write a cover letter which will introduce the report. The report will be distributed to the NRC; Northeast Utilities and the general public.

The council then reviewed and amended the draft report to the legislature as required by Section 17 of Public Act 96-245.

Co-Chair Concannon called for a motion to accept the report to the legislature as revised this evening. Mr. Bill Sheehan made the motion to accept the report, it was seconded by Mr. Mark Holloway and accepted.

It was decided to hold the next meeting in the Auditorium, of the Waterford Town Hall, Waterford, Connecticut, at 7:00 p.m. on February 20, 1997. The council decided to try to have Mr. Bernard Fox, Northeast Utilities CEO come and speak to the NEAC. Subsequent meetings will be held on March 20, 1997 and April 17, 1997. Other items the council wanted on the upcoming agendas are: 1) an emergency response briefing by Northeast Utilities and the state agencies involved in emergency response activities; 2) arrange to have FEMA give the council a presentation; 3) arrange to have NRC and Northeast Utilities give an update and 4) to find out how other States monitor their nuclear plants.

She then opened the floor to the public. The following member of the public spoke to the attendees:

Mr. Paul Blanch, West Hartford

Co-Chair Concannon made the motion to adjourn the meeting. This was seconded, accepted, and the meeting was adjourned.

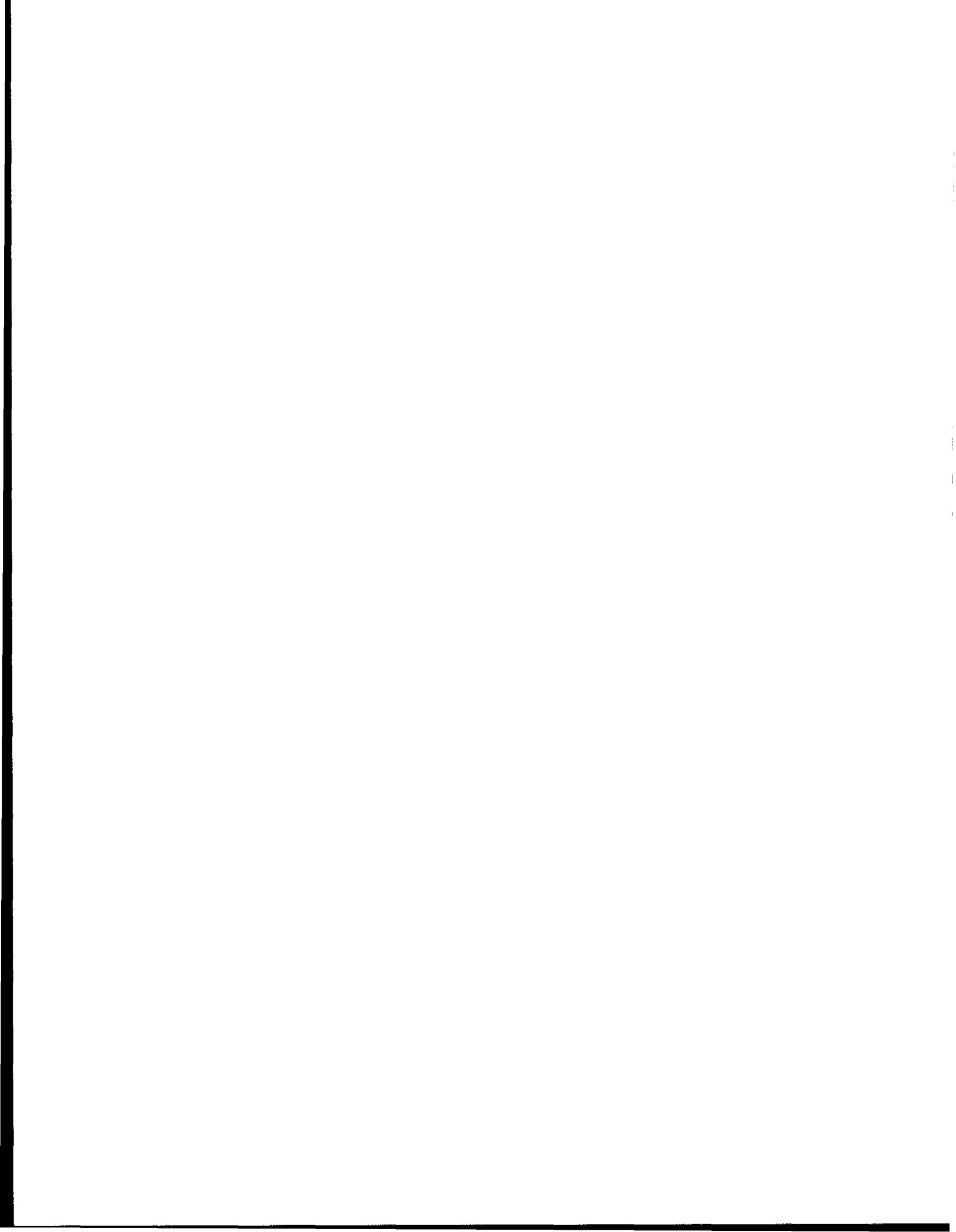
APPENDIX 3



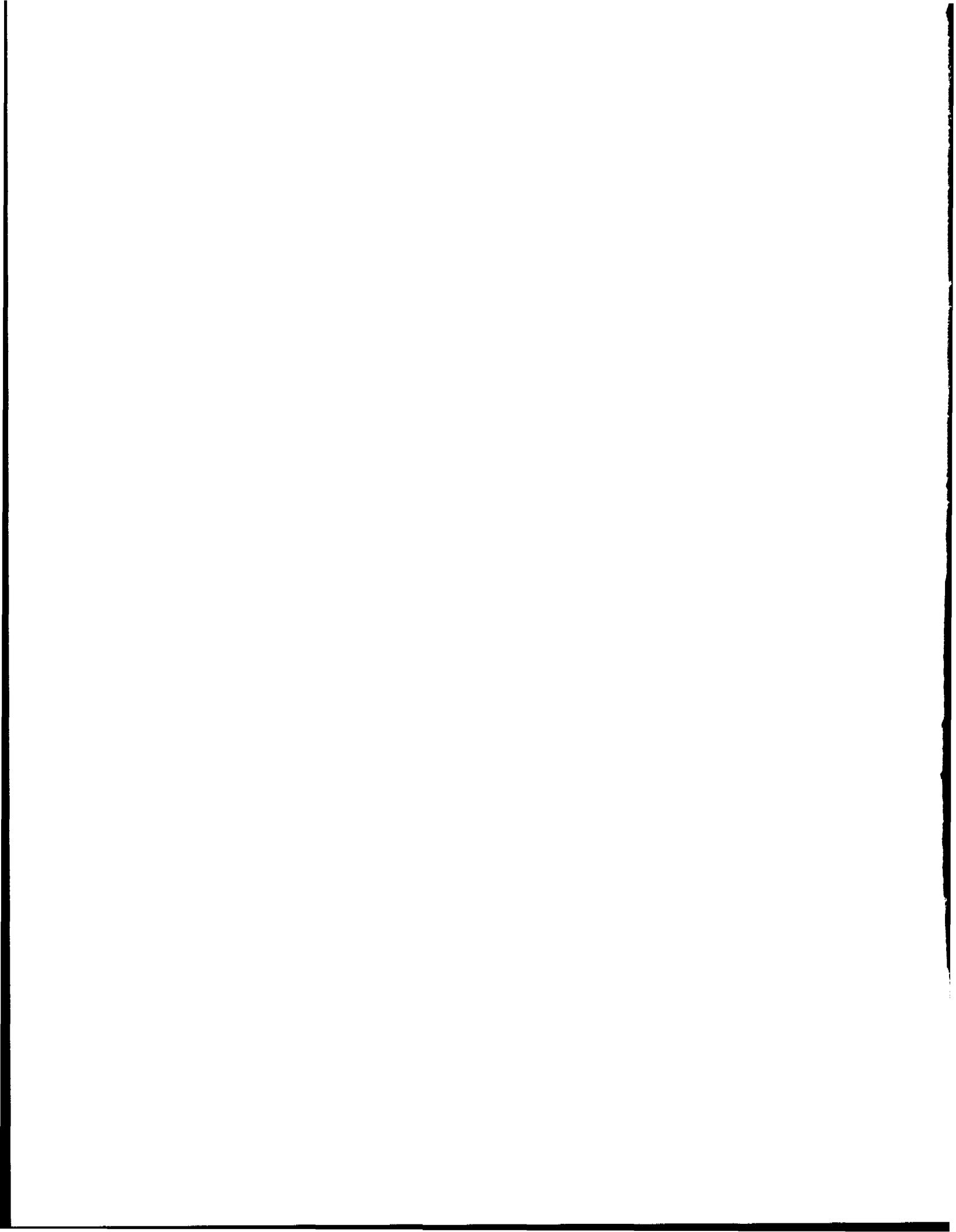
NEAC - BIBLIOGRAPHY

(Chronological order)

- Office of Inspector General, NRC: Event Inquiry, NRC Failure to Adequately Regulate - Millstone Unit 1(12/21/95)
Office of Inspector General, NRC: Audit Report, Factors Contributing to Inconsistency in the Operating Reactor Inspection Program (12/27/95)
Northeast Utilities System -- 1996 Forecast of Loads and Resources for 1996-2015 (3/1/96)
NRC Administrative Letter 96-02: Licensee Responsibilities Related to Financial Qualifications (6/21/96)
NU - Initial Results of Millstone 3 Recovery Activities (7/2/96)
NUREG - 0654, Rev.1/Supplement 3: Criteria for preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear power Plants (7/19/96)
Millstone 3: Information related to the erosion of cement from the Millstone Unit No. 3 Containment Mat (7-8/96)
NU Report of the Fundamental Cause Assessment Team (FCAT) (7/12/96)
Millstone 3 Key Performance Indicators for Operational Readiness " " (NU 7/24/96)
Report on Millstone Station: NRC Public Meeting with NU (7/24/96)
Connecticut Yankee: NRC Special Inspection of Engineering and Licensing Activities (7/31/96)
NRC Public Meeting with NU regarding Millstone Units 1,2 & 3 - Rockville, MD (8/12/96)
Millstone Unit 3 Operational Readiness Plan Punchlist (8/19/96)
Millstone Unit 3 Operational Readiness Plan (NU-NRC public meeting 8/19/96)
Decommissioning Nuclear Power Plants (8/28/96)
DPUC: Focused Management Audit of CL&P's Nuclear Operations (Barrington-Wellesley Group - 8/30/96)
NRC Millstone Independent Review Group Report ("Hannon Report" - Executive Summary); Handling of Employee Concerns and Allegations at Millstone 1985 - Present (9/96)
Millstone Units 1,2,3 and Connecticut Yankee Root Cause Evaluation Report - Effectiveness of the Independent Oversight Organization (NRC - 9/10/96)
NRC Millstone Unit 3 Restart Assessment Plan (9/12/96)
Millstone: Special Inspection of Engineering and Licensing Activities at Millstone 2 and 3 (9/20/96)
Independent Corrective Action Verification Program (ICAVP) (Meeting - 9/24/96)
NRC Combined Inspection (Millstone) 50-234/96-06; 50-336/96-06; 423/96-06(10/9/96)
NRC - Information Pursuant to 10 CFR 50.54(f) regarding Adequacy and Availability of Design Bases Information (10/9/96)
NRC Order Requiring Independent Third-Party Oversight of Northeast Energy Company's Implementation of Resolution of the Millstone Station Employees' Safety Concerns issues (10/24/96)
Connecticut Yankee: Augmented Inspection Team (AIT) Report (10/30/96)
NRC Chairman, Shirley Jackson: Speech at Institute of Nuclear Power Operations (INPO) 17th Annual Conference "Enhancing Performance in a Time of Change." (11/7/96)
Nuclear Malpractice: CY Atomic Station and Implications for Earlier Closure of NU Reactors (Nuclear Information and Resource Service and MA & CT Citizens Awareness Network) (11/25/96)
Millstone 3: Additional Information on Erosion of Cement from the Underlying Porous Concrete Drainage System (11/27/96)
Millstone/NRC Working Meeting on Operator Training Issues (12/3/96)
Connecticut Yankee Atomic Power Company -- NRC Pre-Decisional Enforcement Conference (12/4/96)
Millstone -- NRC Pre-Decisional Enforcement Conference (12/5/96)
Millstone Station Recovery Plans (12/17/96)
NU ICAVP Contractor Recommendation (12/18/96)
Millstone Nuclear Power Station, Units 1,2 and 3 - Proposed Third party oversight of comprehensive plan for Reviewing and Dispositioning Safety Concerns Raised by Employees (12/23/96)
NRC Response to Petition pursuant to 10 CFR 2.206 filed 8/21/95 on behalf of George Galaitis and We the People (12/26/96)
DPUC - Focused Audit of CL&P's Nuclear Operations (R.C. Brown & Associates - 12/31/96)



APPENDIX 4





UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

December 16, 1996

The Honorable Terry Concannon
Mr. Evan Woollacott
Co-Chairs
Nuclear Energy Advisory Council
Room 4035
Legislative Office Building, Capitol Avenue
Hartford, Connecticut 06106

Dear Ms. Concannon and Mr. Woollacott:

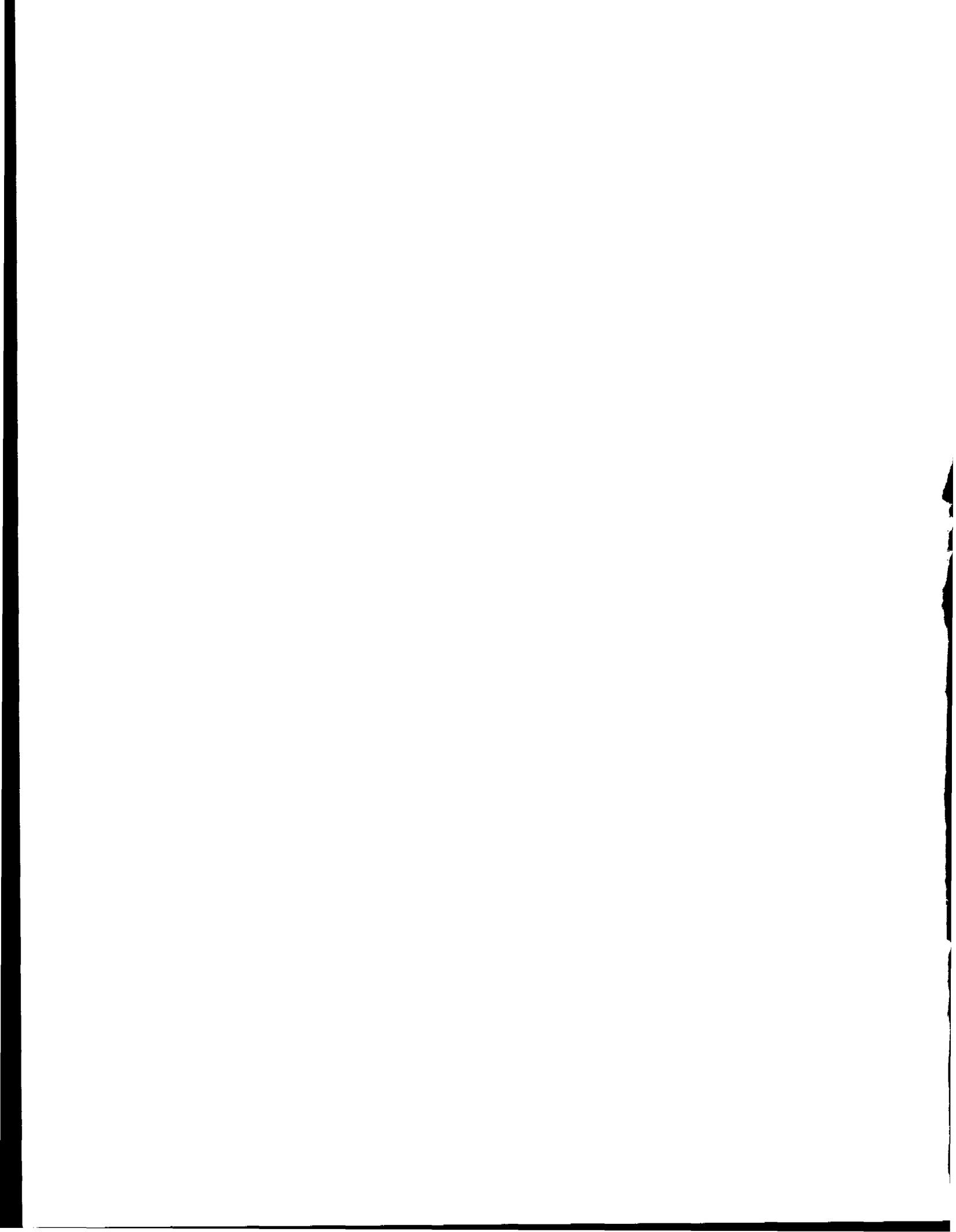
I am responding to your letter of November 12, 1996, to Chairman Jackson informing us of the formation of a subcommittee to assess the "independence" aspects of the Independent Corrective Action Verification Program. In your letter you also referred to the October 24, 1996, order issued by the U. S. Nuclear Regulatory Commission (NRC) requiring independent, third-party oversight of Northeast Nuclear Energy Company's implementation of the resolution of Millstone Station employees' concerns and requested that the Nuclear Energy Advisory Council (NEAC) be included with the NRC and the licensee as a party to which the independent third party reports.

As you are aware, the order requires the third-party organization to report the results of its oversight activities, findings, and recommendations to both the licensee and the NRC at least quarterly following NRC approval of the oversight plan. It is our intent that this report be written and, except for portions that may be exempt from disclosure by our regulations, be available to the public. Although the details of how this information will be reported have not been completed, I can assure you that NEAC will be provided a copy of the report when it is issued.

Sincerely,

A handwritten signature in black ink, appearing to read "Frank D. Miraglia, Jr.", with a stylized flourish at the end.

Frank D. Miraglia, Jr., Acting Director
Office of Nuclear Reactor Regulation





UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 16, 1996

CHAIRMAN

The Honorable Terry Concannon
Mr. Evan W. Woollacott
Co-Chairs
Nuclear Energy Advisory Council
Room 4035
Legislative Office Building
Capitol Avenue
Hartford, Connecticut 06106

Dear Ms. Concannon and Mr. Woollacott:

I am responding to your letter of October 22, 1996, about the Independent Corrective Action Verification Program (ICAVP) imposed at Millstone by the U.S. Nuclear Regulatory Commission's (NRC's) order of August 14, 1996. In your letter, you expressed concerns about three aspects of the ICAVP: team selection, the participation of the NRC, and the scope of the review.

The Commission agrees on the importance of a thorough and independent ICAVP process. In order to ensure that this goal is achieved, the August 14 Confirmatory Order and the NRC's oversight activities at Millstone have been structured to provide for both close scrutiny by the NRC and public openness. For example, the August 14 Confirmatory Order directed the licensee to obtain the services of an organization and individuals who are independent of the licensee and its design contractors to form the ICAVP team.

The NRC will oversee closely the ICAVP process to ensure the quality and independence of the reviews and will review and approve the organization and the individual members selected for the ICAVP team. The factors that the NRC will consider in evaluating the independence of each team member will include, but not be limited to, whether the individual has been involved in design reviews for the licensee and whether the individual has any financial interest in Northeast Utilities. The NRC also will evaluate and approve the ICAVP team's review plan before it is implemented. The ICAVP team concurrently will report its findings to the NRC and the licensee and will be required to comment on the licensee's proposed resolution of the team's findings. To further ensure independence, the ICAVP team will conduct its reviews, to the extent feasible, in the contractor's offices and not at the Millstone site. A protocol being developed by the NRC will control contact between the ICAVP team and the licensee. The NRC staff is preparing a plan for oversight of the ICAVP, including a plan for system selection that will propose: (1) an appropriate sampling methodology, (2) a process to evaluate findings, and (3) measures to ensure an unbiased review. The staff will submit this plan to the Commission before it is implemented.

The ICAVP and all NRC activities relating to the Millstone oversight process will continue to be open processes. The Nuclear Energy Advisory Council (NEAC) and the State of Connecticut have been invited to observe implementation of the ICAVP at the Millstone site. The individuals you have

designated as observers will be kept apprised of the NRC's oversight of the ICAVP activities. The findings of the ICAVP team will be made available to members of the NEAC and the public. We also understand that the NEAC has formed a subcommittee, which includes members of the public, to review the ICAVP contractor proposed by the utility. The NRC will make the final decision regarding the suitability of the contractor organization and individuals selected to conduct the ICAVP. However, any comments or observations by the NEAC subcommittee will be taken into consideration.

The NRC plans to continue to meet periodically with the public on the status of the ICAVP, thereby providing a forum for public comment. For example, on September 24, 1996, the NRC staff met publicly with the licensee at the Millstone site and then met directly with the public that evening at the Waterford Town Hall to discuss the ICAVP. The NRC staff also met publicly with the NEAC on the evening of October 10, 1996, regarding the ICAVP. Additional public sessions will be scheduled as warranted.

In addition to requiring an ICAVP, the NRC recently issued an order requiring Northeast Utilities to prepare and submit a plan addressing employee concerns. The order also requires the utility to form a second independent organization to oversee and report on implementation of that plan.

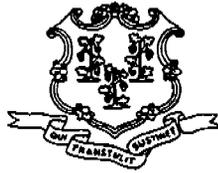
To focus additional regulatory attention on activities at Millstone, including the ICAVP, the NRC has established a Special Projects Office within its Office of Nuclear Reactor Regulation. This new office is being managed by Dr. William D. Travers. In addition to licensing and inspection activities, the Special Projects Office will be responsible for (1) oversight of the ICAVP, (2) oversight of corrective actions by Northeast Utilities related to safety issues involving employee concerns, and (3) inspections necessary to implement NRC's oversight of the plant's restart activities.

The Commission appreciates the comments and concerns expressed in your recent letter. We believe that the current ICAVP process as detailed in the August 14 order, combined with other activities regarding public openness, is sufficient to ensure an independent process. The Commission is committed to ensuring that the activities at Millstone, including the ICAVP and NRC's regulatory oversight programs, are conducted in a thorough and open manner. To that end, the Commission plans to meet publicly with Northeast Utilities on a quarterly basis, with the first meeting scheduled in January. The NRC staff will continue to keep you apprised of developments concerning Millstone. If you have any further comments, questions, or concerns, please contact Dr. Travers at (301) 415-8500.

Sincerely,



Shirley Ann Jackson



State of Connecticut
NUCLEAR ENERGY ADVISORY COUNCIL

REPRESENTATIVE TERRY CONCANNON
Co-Chair
Building
EVAN WOOLLACOTT
Co-Chair

Room 4035
Legislative Office

Capitol Avenue
Hartford, CT 06106

November 12, 1996

The Honorable Shirley Ann Jackson
Chairman, Nuclear Regulatory Commission
Washington, D.C. 20555-001

Dear Dr. Jackson:

We look forward to receiving your response to our letter of October 22, having received acknowledgment of its receipt from Mr. John Hoyle, Secretary of the Commission, dated November 1, 1996.

In the meantime, time being of the essence, the Nuclear Energy Advisory Council (NEAC) approved a subcommittee at our November 7 meeting which will assess the 'independence' aspect of the Independent Corrective Action Verification Program. The subcommittee will assess both the independence of the selection process as performed by Northeast Utilities (NU) and that of the selected contractor. A report will then be submitted to the NEAC with copies to NU and the NRC.

The NEAC has been informed regarding the October 24th order issued by the Office of Nuclear Reactor Regulation, 'REQUIRING INDEPENDENT, THIRD-PARTY OVERSIGHT OF NORTHEAST NUCLEAR ENERGY COMPANY'S IMPLEMENTATION OF RESOLUTION OF MILLSTONE STATION EMPLOYEES' SAFETY CONCERNS.' With the approval of our council members, we respectfully request that the NEAC be included with the NRC and the Licensee as a party to which the independent third-party reports on at least a quarterly basis, the results of its oversight activities, including all findings and recommendations (IV.2). This is an important component in enabling us to carry out our statutory charge to advise the Governor, the General Assembly and the municipalities within a five-mile radius of any nuclear power generating facility in Connecticut of issues relating to its safety and operation.

We thank you and your staff for the assistance which you have given us in order to support the NEAC in our endeavors, and we await your response to these matters.

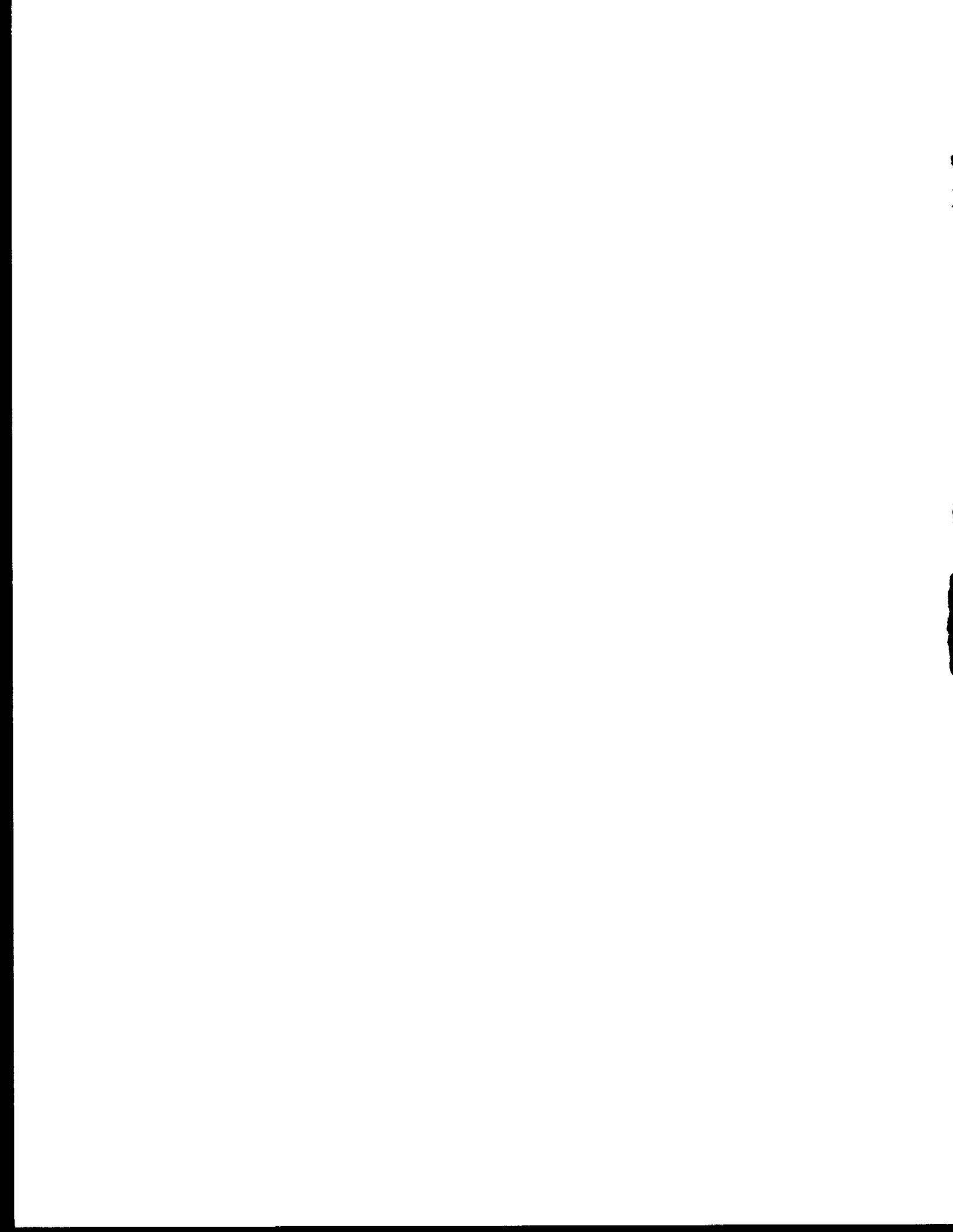
For the Nuclear Energy Advisory Council

Terry Concannon
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APPENDIX 5



Introduction

At the November 7, 1996 meeting of the Nuclear Energy Advisory Council (NEAC), a subcommittee was established to "review the selection process of the Independent Corrective Action Verification Program (ICAVP)" contractor with its scope of activity "limited to assessing the independence of the selected team solely at the basis of the proposals and other presentations." The subcommittee chairman was authorized "to be in direct liaison with Northeast Utilities" and "then report back to the NEAC." The council appointed as NEAC members of the subcommittee: Mr. John Helm, Sr., Mr. John Markowicz and Mr. Mark Holloway. Also appointed from the public-at-large were Mr. Paul Blanch and Mr. George Kee.

Subcommittee Meeting:

On Thursday, November 14, 1996 at 7:00 p.m. an open meeting of the NEAC ICAVP Subcommittee was held at the Sillin Education Building, Millstone Nuclear Plant Site, Waterford, Connecticut. A transcript of this meeting is included as Appendix A. A briefing by Mr. John Paul Cowan, Millstone 3 Recovery Officer, regarding the Millstone Unit 3 ICAVP was the focus of this meeting and a copy of the presentation materials is included as Appendix B. Numerous questions were asked by subcommittee members and responses were provided by Mr. Cowan, Ms Barbara Wilkens and Mr. Jeb DeLoach, representing Northeast Utilities. The public was also invited to comment, and Mr. Pete Reynolds spoke. There were a number of issues raised during this meeting as questions, and written responses were provided by Northeast Utilities on November 21, 1996 (refer to Appendix C), November 26, 1996 (refer to Appendix D) and December 17, 1996 (refer to Appendix E).

On Thursday, December 12, 1996 at 6:00 p.m. a second open meeting of the NEAC ICAVP Subcommittee was held at Waterford Town Hall, Waterford, Connecticut. A videotape of this meeting is available but not included as Appendix F (one copy retained with original). By unanimous votes with all members present and voting, the following four motions were adopted and subsequently reported to the full committee as the ICAVP Subcommittee report/recommendations for Millstone Unit 3:

Motion 1: The subcommittee considers the ICAVP contractor selection process to have been nominally in procedural compliance with NRC Confirmatory Order dated August 14, 1996, but not in compliance with the subcommittee's understanding of ICAVP Independence as defined by Mr. Gene Imbro of NRC staff on page 3 of his presentation on September 24, 1996.

Motion 2: Financial and procedural entanglements between the selected ICAVP contractor and Northeast Utilities remain unresolved and undermine even the appearance of independence considered by the subcommittee to be expected and warranted; public trust in the actions of the NRC and Northeast Utilities will not be improved.

Motion 3: The Governor's office and Connecticut's Washington delegation should be requested to ask the NRC to respond to NEAC's, October 22, 1996 letter request to

entity in the ICAVP process in accordance with Chairman Jackson's promise to the public in Waterford, Connecticut on August 5, 1996.

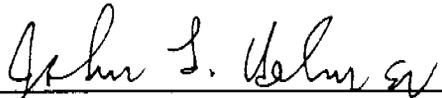
Motion 4: The ICAVP contractor be invited to provide periodic briefings to the public.

It was understood that the subcommittee's evaluation of the Millstone Unit 3 ICAVP contractor selection process was subject to the time constraints of the pending written recommendation to the NRC by Northeast Utilities. Therefore, the four motions adopted at the December 12, 1996 meeting represent a best effort for prompt and objective action to the subcommittee charter established on November 7, 1996.

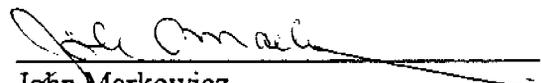
It is further acknowledged that action on Motions #3 and #4 is moot as a consequence of Chairman Jackson's letter to NEAC dated December 16, 1996 and included as Appendix G.

Summary

In summary, it is the consensus of the subcommittee that public expectations regarding the "Independence" of the ICAVP that were raised by Chairman Jackson in Waterford on August 5, 1996 have not been realized and though the Northeast Utilities selection process nominally complies with the NRC confirmatory order, a common sense threshold for independence remains in question.

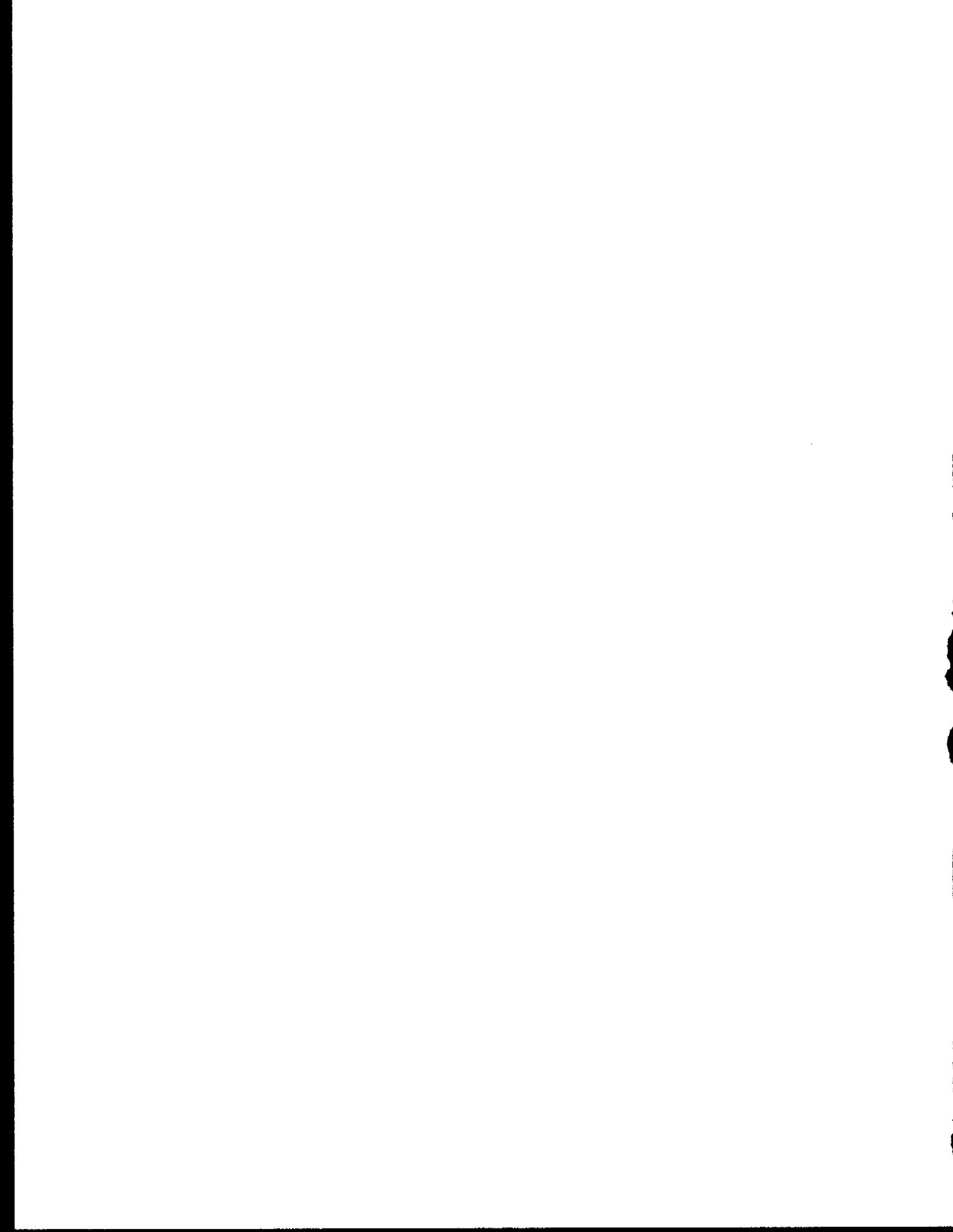


John Helm, Sr.
Co-Chair



John Markowicz
Co-Chair

- Appendix A: NEAC ICAVP Subcommittee Meeting Transcript for November 14, 1996
- Appendix B: Millstone Unit 3 ICAVP Briefing Handout for NEAC ICAVP Subcommittee Meeting on November 14, 1996
- Appendix C: Northeast Utilities letter SP-96-31 dated November 21, 1996 to Mr. John Helm, Sr. and Mr. John Markowicz
- Appendix D: Northeast Utilities letter SP-96-34 dated November 22, 1996 to NEAC ICAVP Subcommittee Members
- Appendix E: Northeast Utilities letter SP-96-45 dated December 17, 1996 to NEAC ICAVP Subcommittee Members
- Appendix F: NEAC ICAVP Subcommittee Meeting Videotape for December 12, 1996 (not included - one copy retained with original)
- Appendix G: NRC Chairman Jackson letter dated December 16, 1996 to NEAC



APPENDIX 6



MILLSTONE INDEPENDENT REVIEW GROUP

HANDLING OF EMPLOYEE CONCERNS AND ALLEGATIONS AT MILLSTONE NUCLEAR POWER STATION UNITS 1, 2, & 3 FROM 1985 - PRESENT

Team Members: Mohan C. Thadani
Carl A. Mohrwinkel
Richard M. Pelton
Forrest Randall Huey
Team Leader: John N. Hannon

Mohan C. Thadani
Carl A. Mohrwinkel
Richard M. Pelton
John N. Hannon, for
John N. Hannon

SEPTEMBER 1996



EXECUTIVE SUMMARY

Since the late 1980's Millstone Nuclear Power Station (Millstone Units 1, 2, and 3) has been the source of a high volume of employee concerns and allegations related to safety of plant operations and harassment and intimidation (H&I) of employees. NRC has conducted numerous inspections and investigations which have substantiated many of the employee concerns and allegations. The licensee has been cited for violations and escalated enforcement has been taken. Notwithstanding these NRC actions, the licensee has not been effective in handling many employee concerns or in implementing effective corrective action for problems that have been identified by concerned employees.

On December 12, 1995, the NRC Executive Director for Operations (EDO) established a review group to conduct an independent evaluation of the history of the licensee's and the staff's handling of employee concerns and allegations related to licensed activities at Millstone Station. A copy of the Millstone Independent Review Group's (MIRG's) charter is attached as Appendix 9.1. The charter directed the MIRG to critically evaluate both the licensee's and NRC staff's effectiveness in addressing Millstone-related employee concerns and allegations. The MIRG was requested to identify root causes, common patterns between cases, and lessons learned and recommend both plant-specific and programmatic corrective actions.

The MIRG determined that in general, an unhealthy work environment, which did not tolerate dissenting views, and did not welcome or promote a questioning attitude, has existed at Millstone for at least several years. This poor environment has resulted in repeated instances of discrimination and ineffective handling of employee concerns. The vast majority of employee concerns and allegations that were submitted at Millstone represented little safety significance; however, many involved potentially important procedural, tagging, or quality assurance (QA) problems, and a few were ultimately determined to have safety significance. The unhealthy work environment combined with the significance of substantiated allegations contributed to Millstone being placed on the NRC's watch list in January 1996.

Many of the cultural issues that lie at the root of the company's problems had been recognized by NU management as early as August 12, 1991. An NU Allegations Root Cause Task Group issued a report on that date which highlighted the lack of respect and trust between employees and their management, and indicated insufficient management sensitivity to routine employee concerns. Subsequently, an Independent Third Party Evaluation contracted by NU, issued a report on May 1, 1995. The report revealed that the old culture of the 1980's had not been completely replaced by a culture encouraging the identification of problems and a questioning attitude, and attitudes impeding effective problem identification and resolution persisted. Most recently NU's Millstone Employees Concerns Assessment Report dated January 29, 1996 reiterated many of the same problems. The report highlighted an "arrogant" management style which had further eroded Millstone employee trust and confidence and which had contributed to NU's repeated failure to correct clearly identified problems.

The MIRG identified seven principal root causes for continued employee concern problems at Millstone. Specific root causes included: ineffective problem resolution and performance measures, insensitivity to employee needs, reluctance to admit mistakes, inappropriate management style and support for concerned employees, poor communications and teamwork, lack of accountability, and ineffective NSCP implementation.

The team concluded that these root causes underscored a common theme of top management failure to provide the dynamic and visible leadership needed to bring about required, basic attitude changes. None of the findings of this team are new. Every problem identified during this review had been previously identified to NU management, often by its own self-assessments, yet the same problems continue. This single failure is viewed as being at the core of Millstone's continuing employee concerns.

The team noted an increased management awareness of the need for improvement in some of these areas, and was impressed with the level of employee commitment to making significant positive changes in the Millstone work environment, as evidenced by many of the individuals interviewed.

The MIRG also identified six principal problem areas associated with NRC processes for the past handling of allegations at Millstone. Specific process problem areas included inadequate sensitivity and responsiveness, inadequate discrimination follow-up, unclear enforcement, ineffective inspection techniques and performance measures, cumbersome NRC - Department of Labor (DOL) interface, and ineffective allegation program implementation. Each of these problems appeared to involve one or more of the following elements: an inappropriate attitude that allegations were a necessary burden which detracted from more important responsibilities, an under-reaction to discrimination claims, ineffective methods for assessing licensee environments for raising safety concerns, and insufficient appreciation of the potential for a chilling effect at Millstone. The MIRG concluded that the process problem areas identified with the past handling of allegations at Millstone have the potential to apply agency-wide.

The team noted that many initiatives had been taken by NRC to improve the process for handling allegations. Examples included policy changes, improvements in enforcement guidance, and other initiatives by OI and the Agency Allegation Advisor.

The team's preliminary findings were discussed in a private meeting with representatives from the allegor community on the morning of August 7, 1996. Following this meeting the team's findings were discussed in a public exit meeting at the Millstone site with NU officials in the afternoon of August 7, 1996, and duplicated in an evening session held at the Hilton Inn in Mystic, Connecticut on August 8, 1996 to accommodate individuals who could not or did not attend the afternoon session. These meetings solicited comments and were transcribed to facilitate consideration of comments before completing the report.

The MIRG will send its recommendations for corrective action to the EDO by separate correspondence for both NU root causes and the potential agency-wide NRC process problems. It is the team's understanding that the staff will consider this material in evaluating the adequacy of NU recovery activities and future improvements in the NRC process.

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1.0 PURPOSE OF THE MILLSTONE INDEPENDENT REVIEW GROUP (MIRG)

The MIRG was formed by a memorandum from the Executive Director for Operations dated December 12, 1995, which required the Office of Nuclear Reactor Regulation (NRR) to conduct an independent evaluation of the history of the licensee's and the staff's handling of employee concerns and allegations related to licensed activities at Millstone Station. The objective was for the MIRG to critically evaluate the effectiveness of both organizations in addressing Millstone-related employee concerns and allegations during the period from 1985 to the present. A copy of the MIRG Charter is attached as Appendix 9.1.

2.0 REVIEW METHODOLOGY

The Director of NRR approved the MIRG work plan and schedule on December 20, 1995. It broadly outlined the objectives and scope of the NRR review effort as reviewing selected files, characterizing in-depth sample cases, and performing structured interviews of involved NRC staff, licensee management and concerned licensee employees and others as necessary to establish an accurate factual record. A copy of the MIRG work plan and schedule is attached as Appendix 9.2.

In late January and early February 1996 the MIRG met with several NRC staff members who were familiar with the Millstone employee concerns process. In January 1996, the MIRG also met with one of the concernees who presented his views on the MIRG mission and objective. The staff reviewed NRC allegation files and selected nine allegers for in-depth case review. The EDO was briefed on the status of the review on February 6, 1996. After an approximately 3-month delay due to administrative difficulties, the staff began to interview selected individuals and to transcribe interviews on May 7, 1996.

As directed by its charter, the MIRG conducted a broad-based review of licensee and NRC allegation files, 2,206 petitions, related inspection reports, Office of Investigation (OI) and Office of Inspector General (OIG) investigations, enforcement actions, DOL actions, and prior NRC management reviews from 1985 to the present. Recent ongoing DOL cases were excluded from the selection process. Nine cases were selected for in-depth evaluation, and more than 40 structured interviews of involved NRC staff, licensee management, concerned licensee employees, and former employees were conducted to ensure an accurate record of the handling of the selected case studies.

The review effort was not an inspection or investigation, and the team did not attempt to independently verify from a technical standpoint every comment or opinion provided during the interviews, but rather considered each comment and opinion in the total context of the review. Also, the team did not attempt to assess blame or revisit old allegations or H&I cases. Names of individuals interviewed are not listed in the report to protect the identity of the individuals. When the team encountered new information relative to potential licensee or NRC staff wrongdoing, it was referred to OI or OIG, respectively. Matters that were referred to OI were subsequently addressed in an Allegation Review Board (ARB).

The MIRG considered that the collected data fell into two areas: either documented facts that were derived from case files and other written material, or assertions and opinions that were transcribed during structured interviews. To the extent possible, the team based its conclusions on factual data. However, the team derived some of its conclusions from the transcribed interviews, particularly when several sources made the same or similar statements. The team decided that even if the assertions and opinions were not entirely correct, the perception alone was sufficiently widespread as evidenced by its inclusion in statements from multiple sources, to have a potential chilling effect. Therefore, these assertions warranted consideration by the review team. The report was written to indicate where conclusions were reached on the basis of documented assertions and opinions, as opposed to being derived from factual data.

By July 5, 1996, the MIRG had developed the following completed or partial products that it would use to develop the factual data base:

- nine in depth case studies
- six transcribed interviews from allegeders (one in two parts)
- notes from one allegeder interview that was not transcribed
- a letter from one allegeder in lieu of a transcribed interview
- transcripts from two NU videotapes (treated as one item)
- twenty transcribed interviews from NU employees (three in two parts)
- a set of notes from a series of interviews (that were not transcribed) with selected NRC staff members who were involved with the handling of Millstone allegations
- an Independent Third Party Evaluation of QAS Audit A30336 "Nuclear Licensing", dated May 1, 1995

for a total of 40 discrete products. Twelve additional transcribed interviews of NRC personnel were subsequently conducted to clarify or amplify information collected prior to the July 5, 1996 date. Four team members were assigned ten products each to review for data identification and classification, and a computerized classification code was devised for ease of reference during subsequent team evaluations.

The team decided to use a modified stream analysis approach, breaking the data down into two streams, either organizational or cultural. The stream analysis revealed that most of the NU information stemmed from long-standing cultural problems that existed at the Millstone Station. Also, NU had recently reorganized (in February 1996) and it was too soon to evaluate the effectiveness of the revised organization. Therefore, the team decided to focus the MIRG effort on describing the primary root causes for the cultural themes at NU, in order to recommend by separate correspondence, the most effective corrective actions that could be taken by NU.

The MIRG considered all of the information that had been collected and developed several root causes for the NU cultural themes that emerged from the review. The MIRG used a similar process to determine NRC process problems. The team's preliminary findings were discussed with the alleged community in a private meeting on the morning of August 7, 1996. The NRC agreed to this meeting at the start of the review effort in order to gain the cooperation of the individuals involved in the study. The meeting was transcribed to facilitate consideration of comments before completing the report.

3.0 COMPOSITION OF TEAM

The MIRG was led by John Hannon, a Project Director in the Office of Nuclear Reactor Regulation (NRR). Carl Mohrwinkel is Assistant Agency Allegation Advisor and has considerable experience in labor relations and management assessment. In addition, he holds a law degree. Mohan Thadani is a Project Manager with extensive experience on both Boiling Water Reactor (BWR) and Pressurized Water Reactor (PWR) type reactors. Randy Huey is an engineer with many years of experience in nuclear operations and allegations follow-up; he has also served as an Engineering Branch Chief in the Region IV and V offices. Rick Pelton is a Training and Assessment Specialist who has considerable experience in nuclear operations, health physics, emergency planning, and training. Cheri Nagel served as the team secretary and transcript/document custodian. The team members were picked because of their background and experience, and because they had little or no prior involvement with Northeast Utilities (NU) or Millstone.

Although not members of the team, the MIRG was advised by Ed Baker, the Agency Allegation Advisor; Jean Lee, NRR Allegation Coordinator; Art Gallow, Office of Investigations; Dick Hoefling and Mary Pat Siemien, OGC; and Alan Madison, AEOD.

4.0 BACKGROUND

4.1 The Current Employee Concerns/Allegations Process

4.1.1 NRC's Allegation Process

The NRC is responsible for regulating the operation of 110 nuclear power plants. The NRC inspection program is based on auditing safety significant activities. However, with such a magnitude of licensed activities only a fraction can be inspected, given the available resources. Therefore, the knowledge of the thousands of employees working in the nuclear industry offers valuable insight into the day-to-day practices of licensees.

It is the policy of the NRC to expect a nuclear work environment in which the highest standards of quality, integrity, and safety are practiced. NRC regulations place the primary responsibility for safe operation on the nuclear licensees. In order to discharge this responsibility, it is important for the licensees to maintain a workplace environment that encourages identifying and resolving technical concerns.

Only a management attitude that safety, quality, and integrity are of first importance can promote such an environment. This attitude must not only be

believed by the entire workforce, but it must also be consistently and effectively communicated to all those who participate in licensed activities, from craft workers to first-line supervisors to quality assurance auditors. Such a management attitude supports an atmosphere in which personnel at any level are encouraged to report concerns at a very low threshold, and these concerns are promptly reviewed, prioritized, investigated, and, if warranted, corrected, with appropriate feedback to the individual.

Many concerns of varying technical significance are raised daily by nuclear licensee employees. Most of these concerns are resolved rapidly by direct internal methods, usually by informing a co-worker or supervisor or by preparing a corrective action document that is routed to the appropriate party for resolution. In some cases, employees may wish to exercise an alternative means to resolve a concern, and several indirect internal options are typically available. Employees may bring the concern to a higher level of management, or to the quality assurance group. If employees are not satisfied with the initial resolution of their concern, there is usually a process for resolving a differing professional opinion (DPO) internally within the organization. The DPO process might be employed to have an independent technical review of the issue conducted. Although not required, many licensees have programs to deal with employee concerns anonymously for employees wishing to maintain their privacy. Finally, employees may choose to exercise an indirect external method to obtain resolution of the concern by bringing it to the attention of the NRC.

Clearly, in a healthy nuclear work environment, the best way for an employee to raise a concern is by the direct internal method. Most often, if an employee chooses to bring a concern to the attention of the NRC, it is because either (1) internal methods of raising the concern have not produced a result satisfactory to the employee or (2) for some reason, the employee is not comfortable raising a concern by internal methods. Either reason may indicate that something is wrong with the nuclear work environment.

Over the years, the NRC, the nuclear industry, and the public have benefited from issues raised by employees of licensees and their contractors. The current NRC process is set up to allow members of the public or people working in NRC-regulated activities to report safety concerns directly to the NRC by discussing the issues with an NRC staff member, calling the NRC's Safety Hotline (800-695-7403), or writing a letter to the NRC. Guidance to the staff for tracking and resolving allegations is described in Management Directive 8.8, "Management of Allegations." Each NRC region and the two licensing offices (Nuclear Reactor Regulation and Nuclear Materials Safety and Safeguards) have assigned an allegation coordinator to coordinate review and resolution of safety concerns reported to the NRC. If NRC staff members receive a safety concern, they are required to promptly forward it to the appropriate allegation coordinator.

The allegation coordinator assigns a tracking number to the safety concern, enters the concern in a computerized data base, and schedules a meeting of appropriate NRC managers and staff (an ARB) to discuss the concern and determine a course of action to resolve it. The ARB could decide that the staff should perform an inspection or investigation, refer the issue to

another Federal or State agency, refer the issue to the licensee to perform a review of the concern, or could determine that no action is necessary. The NRC currently tries to send an initial response within 30 days to the person submitting the safety concern. The initial response acknowledges receipt of the concern and describes the NRC's understanding to ensure a common identity of the concern.

Actions to resolve concerns are prioritized according to their safety significance. If the concern requires immediate action to protect health and safety of the public, the NRC immediately contacts the licensee and requests an investigation of the matter and prompt corrective action. The NRC has a goal of six months for reviewing and resolving potential safety concerns that do not involve wrongdoing. Referrals to other agencies or licensees and NRC inspections are scheduled in an attempt to meet this goal. However, complex safety concerns may take longer to resolve.

After completing an inspection or receiving a response to a referral, the NRC sends another letter to the individual who submitted the concern. The letter explains what action the NRC took to review the safety concern and tells whether the concern was substantiated. If the review takes longer than six months, the NRC sends an interim letter that reports the status of the NRC's review.

4.1.2 Harassment, Intimidation, or Discrimination

The NRC's regulatory process seeks to provide assurance that nuclear industry employees will not be retaliated against for raising potential safety concerns to a licensee or the NRC. The Commission's regulations (10 CFR 19.20, 30.7, 40.7, 50.7, 60.9, 61.9, 70.7, and 72.10) prohibit discriminating against an employee for raising safety concerns. Discrimination includes discharge and other actions that relate to compensation or terms, conditions, and privileges of employment. A licensee, its contractors, and its subcontractors are subject to enforcement action by the NRC for violating these prohibitions.

Allegations of harassment, intimidation, and discrimination (HI&D) are initially brought to an ARB, where the potential violations and safety significance are discussed. If the issue falls within the jurisdiction of the NRC, OI will normally initiate an investigation and conduct preliminary investigative activities, to include an interview of employees posing the problem and review of available documentation. On the basis of the results of these preliminary investigative activities, a second ARB assesses the safety significance and potential chilling effect if substantiated, and assigns a priority in accordance with the criteria in NRC Management Directive 8.8. On the basis of that priority, the NRC may or may not pursue the investigation.

Even if discrimination is substantiated, the NRC has no authority to offer a personal remedy, such as reinstatement of position or back pay, to an employee who has been subjected to discrimination. An employee who believes that discrimination has occurred may seek a personal remedy by filing a complaint within 180 days of the discriminatory act with the DOL. Enforcement actions available to the NRC against licensees, their employees, contractors, or

contractor employees include denying, revoking, or suspending a license; imposing civil penalties; and criminal sanctions.

The DOL follows a three-step process. The first step is an attempt to mediate a settlement between the employee and the employer. If that can't be done, DOL investigates the circumstances surrounding the alleged discrimination and the Area Director then decides if discrimination occurred. An employee or employer who disagrees with the Area Director's decision may file an appeal and request a hearing before an Administrative Law Judge (ALJ). The hearing is a public process at which both sides present evidence supporting their case to the ALJ. The ALJ rules on the merits of the case and in the past recommended an action to the Secretary of Labor. The current practice has the ALJ making recommendations to a DOL Administrative Review Board. An ALJ who finds that discrimination has occurred, may recommend that the employer reinstate the employee and pay back wages, plus interest. The Secretary of Labor is required to order reinstatement, together with back pay, on the basis of an ALJ decision favorable to the employee. Compensatory damages, however, may not be ordered until after a formal review by the Secretary of Labor.

4.1.3 Identity Protection

The identity of an individual submitting a safety concern to the NRC is treated as need-to-know information. That is, those persons who need to know the identity of the individual can acquire the information. Files containing a concernee's name are kept locked, under the control of the allegation coordinator. The names of individuals are generally not used during ARB meetings and NRC employees who receive the names of concernees are trained on the importance of protecting the individual's identity.

Under certain circumstances, the identity of an individual raising safety concerns can be released. One or more of the following criteria must be met for disclosing identity:

- The individual clearly indicates no objection.
- Disclosure is necessary to ensure public health and safety.
- Disclosure is necessary pursuant to an order of a court or NRC adjudicatory authority or to inform Congress, State, or Federal agencies in the furtherance of NRC responsibilities under law or public trust.
- The individual takes an action that is inconsistent with and overrides the purpose of protecting his/her identity.

Additionally, for allegations involving wrongdoing, the individual's identity may be disclosed if necessary in furtherance of the investigation. For allegations of H&I, the NRC discloses the concernee's identity during an NRC investigation if the concernee asserts he/she is the victim of discrimination. However, if the concernee requests that his/her name be kept confidential, the NRC usually will not investigate the case, because of the difficulty involved

in conducting an H&I investigation under the constraint of identity protection.

4.2 Overview of Millstone Allegations and Employee Concerns

Operational safety problems at Millstone Nuclear Power Station led NRC's senior managers in a January 1996 senior management meeting (SMM) to conclude that Millstone Nuclear Power Station should be placed on the NRC watch list. Other factors contributing to this decision included a consistent pattern of the inability of Northeast Utilities (NU) management to effectively resolve its employees' concerns, a large influx of allegations received by NRC, and repeated instances of DOL and NRC findings of NU managers' discrimination against employees who raised safety concerns.

In a letter dated January 29, 1996, from the NRC EDO to the president of the Northeast Utilities Service Company's Energy Resources Group, NRC stated that the Millstone plants were being placed on the NRC's watch list as Category 2 plants (plants that are authorized to operate but require close monitoring by NRC). The NRC's concerns with Millstone performance were compounded by two previous escalated enforcement actions in 1994 for HI&D against employees raising safety concerns, and a continuous high volume of employee allegations of safety concerns not being appropriately resolved within the NU organization.

In a June 1996 SMM, NRC senior managers again discussed Millstone Nuclear Power Station and on June 25, 1996, met with the Commission to review the results of that meeting. After consultation with the Commission, the EDO informed NU in a letter dated June 28, 1996, that the Millstone Nuclear Power Station had been designated as a Category 3 facility by the NRC. Facilities in this category are identified as having significant weaknesses that warrant maintaining them in a shutdown condition until (1) the licensee can demonstrate to the NRC that adequate programs have been established and implemented to ensure substantial improvement and (2) the Commission votes to approve the restart.

A perspective on the handling of Millstone Nuclear Power Station employee concerns and allegations follows.

4.2.1 Historical Perspective Since 1985

From 1985 to 1988, there was some evidence of a decline in NU's attention to timely root cause analyses and indications of a lack of effective response to employee concerns. Figure 1 shows that during the 1985 to 1988 period, allegations brought by NU employees to NRC reflected a pattern similar to other plants with average to good overall performance. As early as 1987, NU was reported by a concerned individual to be attempting to increase corporate profits by reducing its employee payrolls. The 1988 Systematic Assessment of Licensee Performance (SALP) report indicated that NU employees were having procedure compliance problems, which were not being resolved effectively. Employee concerns about how the licensee was dispositioning problems were also noted in the 1989 SALP report. Of particular significance was NU's failure to perform prompt operability/reportability determinations for the feedwater

coolant injection (FWCI) system after an NU employee raised operability concerns to NU management.

In 1991, NU conducted several task group reviews in areas of weakness that had been noted by NRC. Integration of findings from these reviews confirmed that there was a wide variety of problems at the Millstone plants. Problems included ineffective leadership, lack of a safety-minded culture, and inadequate resources provided by the corporate management. On the basis of NRC comments and its own findings, NU developed and launched a consolidated Performance Enhancement Program (PEP) to address the integrated findings of its reviews.

Also in 1991, NRC received approximately 140 allegations related to the Millstone site which contained hundreds of safety concerns. Judging by the number of allegations, the Millstone site was an outlier when compared to other sites that performed well. The NRC typically receives 10 or fewer allegations per year from sites that are performing well. Table 1 lists the number of allegations received by the NRC from 1985 to early 1996. The highlighted sites received in excess of 25 allegations per year and have also experienced operational difficulties.

In a separate effort in December 1991, as a result of mounting concerns about NU's difficulties with resolving the concerns of its employees and the numerous inspection and investigative activities under way with respect to employee concerns, NRC's Deputy EDO set up a Special Review Group (SRG). The purpose of the SRG was to determine whether an atmosphere existed in NU's facilities which encouraged employees to identify and report quality discrepancies or safety concerns.

The SRG concluded that an overall atmosphere that encouraged the reporting of quality deficiencies or safety concerns was lacking in many respects. The SRG found that weaknesses were present with respect to management direction and leadership that detracted from an open atmosphere for dealing with safety issues, including the more routine employee concerns.

On April 6, 1992, the EDO transmitted the Executive Summary of the SRG report to NU and asked the licensee to comment on the findings of the report. On April 15, 1992, NU responded to the Executive Summary and asked the NRC to carefully consider whether the findings or recommendations of the SRG review, based on matters spanning more than six years, "actually applied to the then current conditions." NU explained that it was diligently developing and implementing its PEP; and although NU was concerned about the finding that the atmosphere at Millstone did not encourage the reporting of nuclear concerns, the NU Chairman and Chief Executive Officer were encouraged that the weaknesses described in the SRG Executive Summary appeared to be generally historic rather than current at the time.

In May 1992, NRC set up the Millstone Assessment Panel (MAP) to monitor NU's activities under the PEP and to maintain an integrated and focused oversight of NU's performance at the Millstone site.

NU did not believe that the findings of the SRG were applicable to the then current conditions at Millstone. However, NRC's MAP, which was monitoring the

PEP, identified in a letter to NU, on August 17, 1992, many management policy issues, including cost containment, safety focus, management expectations, communication, and organizational performance.

A high influx of Millstone allegations to NRC continued in 1992. More than 50 Millstone allegations were substantiated by the NRC (a historically high number). In 1993, the number of allegations submitted to the NRC related to Millstone markedly declined to about 30. This decline can be attributed to the firing of two NU whistleblowers in 1991 and NU's settlement with them of their DOL complaints; until they were terminated, these employees had contributed to most of the allegations. During the 1992 - 1993 time period, procedural adherence problems continued. NU devoted considerable resources to revising and improving its Nuclear Safety Concerns Program (NSCP) and introduced the peer evaluation feature into the program. However, the NRC senior resident inspector indicated that the managers appeared not to buy in to the program, as indicated by the Technical Department Manager's inattention to resolving the issues raised by NSCP and the allegations referred to NU by NRC.

As shown in Figure 1, the number of allegations received increased slightly in 1994 and again in 1995. The increased activity involved a number of concerns related to spent fuel pool issues (identified in 1993) and questions related to operating outside the plants' design basis and inadequate control of plant modifications.

The allegations were related to continuing safety performance problems and failure of NU management to respond to employee concerns in a timely and safety conscious manner, when raised through the licensee's internal framework. According to some of its past employees, NU management's attitude was that its managers knew what was best for the company. These attitudinal and behavioral difficulties resulted in three escalated enforcement actions for discrimination and more than 20 "chilling effect" letters being issued by NRC to NU during the 10 year period from 1985 to 1995.

NU's performance problems in the area of operability/reportability continued during 1996. Ultimately NU's refueling practices at Millstone Unit 1 were determined to be inconsistent with the design basis of the facility. Those concerns regarding NU's refueling practices at Millstone 1 were raised by an employee in 1993.

5.0 CASE SELECTION

In selecting which cases to review, the team first reviewed Millstone allegations dating back to 1985. This review covered several hundred allegation files, from which about 50 were selected, using the general criteria that the team felt were important, i.e., NU and NRC responsiveness, HI&D cases, and technical issues with sufficient documentation to support the review effort. After the team members familiarized themselves with the 50 case files by reading parts of each of them, they reduced the number to about 20 cases chosen by the team members as representative of the spectrum of cases available to review. The team reviewed the 20 cases, discussing the general merits of each case, and chose 9 for its comprehensive review. Of these nine, eight had received public media attention. During the course of the study,

eight of the nine individuals whose cases were selected were either interviewed in depth or gave written input to the team; the ninth individual chose not to participate actively in the review effort, although the case study was useful.

5.1 Identity Protection

In order to not explicitly identify certain individuals who agreed to be interviewed during this review, this report does not identify by name anyone whose case was selected for this study.

5.1.1 Concernee A

Concernee A filed a complaint with the NRC in August 1992 because he believed that he had been subjected to H&I. Most of the information for the period from August 1992 through August 1993 is found in an August 1993 letter from Region I to the allegor. This letter stated that it was replying to a complaint made to the NRC in August 1992 and that the NRC had never received any response to its previous August 1992 response letter requesting additional details. Even without a response to its August 1992 letter, NRC was able to investigate the eight technical concerns but did not investigate the complaint of H&I. The August 1993 letter closed out the technical concerns.

Details of H&I in the case files reviewed were limited and inconclusive. Concernee A was enrolled in NU-sponsored performance improvement programs (PIPs) which he considered to be harassment.

In August 1993, and before he received the August 1993 letter from NRC, Concernee A filed a second allegation and a 10 CFR 2.206 petition. His new concerns related to punitive employment actions taken against him for raising nuclear safety concerns. From this point on, all of Concernee A's subsequent H&I concerns filed after August 1993 were incorporated into the 2.206 petition.

The investigation conducted by OI did not substantiate the employee's claim that he was discriminated against for engaging in protected activities. The Office of Enforcement (OE) concluded that there was no basis for any enforcement action.

Concernee A filed a discrimination case with the DOL in August 1994. The DOL District Director issued a report in September 1994 stating there was no indication that Concernee A had suffered punitive personnel action. In December 1995, an ALJ recommended that the complaint be dismissed with prejudice.

On the basis of the findings of the OI investigation and the DOL decision, NRC denied the 2.206 petition and supplements in August 1995.

5.1.2 Concernee B

Concernee B was employed at Millstone from 1979 until his termination in 1991. During a transcribed interview, Concernee B told the NRC staff that his concerns about the safety of Millstone plant operations dated back to 1986,

when he believed that after his repeated efforts to have a defective containment radiation monitor replaced, his managers at NU ignored his safety concerns due to economic pressures. Subsequently, Concernee B reported his concerns during 1986 and 1987 to LRS (a contractor engaged by NU to address employee concerns), but was not satisfied with how LRS resolved his complaints. NRC records indicate that Concernee B first complained to the NRC in 1988. By October 1991, he had raised more than 500 concerns to the NRC.

As stated, Concernee B filed many allegations over a short period of time. In order to be responsive, NRC assigned five full-time engineers to handle the backlog of allegations that was created.

NRC found that most of Concernee B's concerns represented the type of concerns that should have been routinely resolved by day-to-day department interactions within the utility organization. Since 1988, NRC issued ten Millstone violations to NU arising out of Concernee B's claims. The violations were determined to involve Severity Level IV problems, and no escalated enforcement action was taken by NRC.

Concernee B filed 12 DOL complaints, claiming retaliation by NU for raising safety concerns. The DOL Area Director found discrimination with regard to 2 of the 12 complaints. Upon inquiry from NRC, NU stated that Concernee B was terminated because his behavior was disrupting the workplace. The NRC and DOL investigations found that discrimination had occurred. Prior to a DOL hearing, an out-of-court settlement was reached between NU and Concernee B.

5.1.3 Concernee C

Concernee C joined NU in 1972, and served in various engineering capacities. Concernee C initially developed concerns about Rosemount transmitter oil leakage problems during the January-April 1989 period. Shortly after a March 1989 meeting between NU and the NRC, during which Concernee C expressed his opinion of the generic nature of the Rosemount transmitter problems, Concernee C's supervisor criticized his professional and supervisory conduct at the meeting, and told him that he was being removed from work on Rosemount transmitters.

In April 1989, Concernee C wrote memoranda to NU managers alleging discrimination by his supervisor in retaliation for his having raised safety concerns about Rosemount transmitters. Concernee C subsequently met with the NU Executive Vice President, during which he was assured that no discrimination was involved, and Concernee C was advised that he was not being removed from Rosemount work. In August 1989, an independent consultant to NU (LRS) completed an investigation and issued a report which concluded that Concernee C had been subjected to discrimination. The report stated that Concernee C had exhibited superior technical insight, commendable initiative, and unusual courage in tenaciously pressing for recognition of the Rosemount transmitter issue as a significant industry safety concern. The report further concluded that Concernee C was subjected to harassment and attempts at intimidation by his management, which may be continuing, and that the acts of harassment were sometimes apparently made with intent. Senior NU management did not concur with the LRS findings; however, the NU CEO concluded that some NU managers may have a poor attitude about employees who raise safety issues, and in September 1989, a reprimand was issued to Concernee C's direct supervisor and manager.

Also in September 1989, in response to internal allegations against Concernee C, senior NU management initiated a formal audit of alleged misuse of subcontractor time by Concernee C's Engineering group. As a result, Concernee C filed a complaint with DOL in October 1989, claiming that the audit was discriminatory. The audit report, issued in November 1989, concluded that two of Concernee C's employees had submitted false time charges, and the two employees were disciplined. Concernee C claimed that the audit was blatant discrimination and requested that an independent third party review the matter. NU denied Concernee C's request.

In April 1989, Concernee C contacted the NRC Senior Resident Inspector (SRI) at Millstone with a concern that safety-related Rosemount transmitters may fail to perform their safety function. Concernee C stated that he was aware of industry initiatives to resolve the problem (e.g., Part 21 and INPO notices, and an NRC inspection report), and although he believed that Millstone had addressed the problem, he was concerned that not enough was being done to promptly address the generic issue at other operating plants.

Between April and October 1989, Concernee C contacted NRC resident and NRR personnel on numerous occasions to provide additional technical information about the Rosemount transmitter problem. In particular, Concernee C advised the NRC that neither the vendor nor licensees were properly reporting Rosemount failures, some licensees were not properly monitoring potentially defective transmitters for failure as required by NRC Bulletin 90-01, PRA results were being improperly used to mask the safety significance of Rosemount failures, and the overall focus on the Rosemount issue was too narrow and did not appreciate the full safety significance of the problem.

During the early months of 1990, Concernee C also alleged that the Rosemount vendor knew about transmitter fill-oil leakage problems as early as 1986, and had willfully suppressed the problem.

Following receipt of Concernee C's Rosemount allegation in April 1989, Region I promptly convened an ARB, and responded to Concernee C in May 1989. The Region I response advised that the generic Rosemount transmitter concern had been referred to NRR for review. Upon receipt of the allegation referral from Region I, NRR promptly convened an ARB and directed that the Vendor Branch should evaluate the reportability concern, and the Generic Communications Branch should review failure data from Rosemount within the next 6 months, with possible inspection after review of the data. NRR continued to review the problem until NRC Bulletin 90-01 was issued in March 1990.

After issuing NRC Bulletin 90-01, NRR evaluated the data requested by the bulletin, as well as numerous charges expressed by Concernee C regarding industry and NRC failure to properly focus on the full safety significance of the Rosemount problem. In December 1992, NRC Bulletin 90-01, Supplement 1 was issued.

In May 1993, the EDO chartered a special NRR review group to conduct an in-depth evaluation of the Rosemount transmitter "loss of fill-oil" issue to determine whether the NRC should require licensees to take any additional action beyond that specified in NRC Bulletin 90-01 and Supplement 1. The review group completed its evaluation and issued a report in October 1993, which concluded that the scope and required actions of the NRC bulletin were

appropriate, and recommended several additional NRC follow-up actions. For several months following completion of the Rosemount special review group effort, NRR continued to address various 2.206 petitions submitted by Concernee C requesting more aggressive NRC action against Rosemount. NRR closed out Concernee C's Rosemount allegation file in June 1994, on the basis of having provided Concernee C with the Rosemount special review group report. NRR sent Concernee C a final response to his 2.206 petitions in December 1994, noting the NRC enforcement action against Rosemount.

In April 1989, Concernee C contacted the NRC SRI at Millstone and advised him that he had filed a formal complaint with NU management regarding discrimination by his supervisor. Specifically, Concernee C alleged that his supervisor had improperly criticized his professional and supervisory conduct, and removed him from further work on Rosemount transmitters, in retaliation for his having raised safety concerns.

In October 1989, Concernee C further advised the Millstone SRI that he had filed a DOL claim that NU had improperly used an internal audit of alleged misuse of subcontractor time within Concernee C's engineering group as a means to harass and intimidate Concernee C for raising Rosemount safety concerns. Concernee C also advised the SRI that NU's harassment and intimidation of Concernee C was having a chilling effect on other Millstone employees.

In February 1990, Concernee C sent a letter to Region I alleging that 10 CFR 50.7 was inadequate to protect concerned employees at Millstone, since NU, which had unlimited rate-payer funds, hired high-power lawyers to intimidate employees into submission. Concernee C requested that the NRC pursue Severity Level I enforcement against NU, since he was reluctantly forced to settle his DOL claim, and subsequently resigned from NU in February 1993.

Following receipt of Concernee C's discrimination allegation in April 1989, Region I promptly convened an ARB, and sent a response to Concernee C in May 1989. The Region I response advised that the NRC would take no further action at this time since Concernee C had pursued the matter with the licensee, and advised him of his DOL rights. In December 1989, following receipt of Concernee C's DOL complaint about the internal audit, and DOL's initial finding of discrimination, Region I requested an OI investigation of NU, and sent a chilling effect letter to NU in February 1990. In August 1992, OI issued its investigation report, which substantiated that NU had discriminated against Concernee C. In May 1993, Region I sent Concernee C a closure letter on his discrimination allegations, noting the NRC enforcement action against NU.

After extensive consideration of the finding of DOL and OI investigations of NU discrimination against Concernee C, the NRC issued a Severity Level II Notice of Violation and \$100,000 civil penalty to NU in May 1993. The NRC also issued a demand for information (DFI) as to why the NRC should have confidence that NU had corrected the discrimination problem at Millstone, and why top-level NU managers could not effectively end the chilling effect when they first became aware of the Concernee C's discrimination complaints.

NU responded to the NRC enforcement action and DFI in June 1993. NU disagreed that any violation had occurred; however, in the "spirit of using this experience to learn and improve," NU did not request a hearing and paid the civil penalty, noting that NU managers could have been more sensitive in 1989

to perceptions and appearances, and could have shown better interpersonal and communications skills.

In July 1993, the NRC acknowledged NU's response, and stated that after full consideration of NU's comments, the NRC had determined that the discrimination violation occurred as stated and that additional discussion of the specific points involved would serve no further purpose. The letter asked NU to send NRC the results of the NU review of the effectiveness of the performance enhancement program (PEP), and noted that the NRC would inspect the results of this program.

An enforcement conference was held with Rosemount in June 1994. In November 1994, the NRC issued a Severity Level II violation to Rosemount for careless disregard of the requirements of Part 21, by failing to adequately evaluate or inform its customers of the potential for degraded transmitter operation resulting from sensor cell oil loss.

In June 1993, Region I issued the report of an NRC team inspection of the Millstone PEP. The team reviewed the NSCP program and found that the most significant enhancement recommendations had been adopted into the NSCP and that the NSCP appeared to handle employee concerns thoroughly and had adequate provisions to protect concernee identity. The team interviewed 30 NU employees and concluded that "the overwhelming majority of employees" used the chain of command to resolve their safety concerns and were encouraged by their supervisors to raise concerns.

In December 1995, NRR issued the report of a follow-up NRC team inspection to assess the effectiveness of NU's corrective actions in response to the 1993 enforcement action. The team interviewed 40 employees and 11 managers/supervisors, and assessed the adequacy of the Millstone NSCP. The team concluded that NU had made significant progress improving the NSCP process, and management appeared committed to encouraging employees to identify safety concerns without fear of retaliation. Effective training programs were in place for managers and supervisors, and a majority of employees indicated they were comfortable raising safety concerns and were confident that management would provide positive responses. However, the team also noted that, in at least one interview, there was a perception that retaliation against employees might still exist in pockets of the NU organization, and despite recent improvements in the NSCP, current and former NU employees and contractors continue to bring a large number of concerns to the NRC. The team also noted that NU attempts to resolve some technical issues often involved long delays in completing engineering analyses or non-technical justifications in an apparent attempt to justify the status quo. The cover letter stated that, given NU's poor track record, the NRC planned to meet periodically with NU to review progress "to resolve this chronic problem."

5.1.4 Concernee D

Concernee D worked for a contractor at Millstone intermittently from 1979 until his termination in 1987. He was rehired by the contractor at Millstone in September 1992, in a settlement he reached as a result of his claim that he was illegally fired in 1987.

Three weeks after the contractor rehired him (in September, 1992), he was again laid off, along with several other people, for lack of work at Millstone. He was rehired the next day to work at Millstone by another contractor. Apparently, he and the others had volunteered to be laid off on the promise of immediate re-hire. He was terminated after one week by the second contractor.

Concernee D's allegations dealt with many issues, such as the use of drugs and alcohol on the job, sloppy work practices, sale of clean urine samples to escape detection of drug use, H&I based upon having revealed that he had leukemia and could no longer meet the health physics requirements of his job, and incompetent handling of his concerns by various NRC officials.

The NRC first became aware of Concernee D's complaints in January 1988, when Region I received an allegation from Concernee D's oncologist who filed the allegation on behalf of this individual. Subsequently, three other groups of allegations were submitted to the NRC, in August 1991, September, and December 1992.

The NRC was not timely in processing these allegations. In addition, the NRC did not follow up on the allegation with the concernee or his physician. Specifically, in regard to the first set of allegations, filed in January, 1988, an ARB held six weeks after the allegation was received, decided that the Regional Administrator should request assistance from OI in conducting a preliminary investigative interview of Concernee D in order to receive more specific information about his concerns and to determine how to proceed. This request for OI assistance was not drafted until June 6, 1988, three months after the ARB met, and then was never sent to OI. Region I staff interviewed Concernee D several times by telephone, but the first telephone interview was not conducted until almost 9 months after the allegation was received. The concernee was notified, on October 20, 1988, that his concerns were going to be turned over to the FBI, since they were outside the NRC's regulatory authority. On October 24, 1988, the concerns were forwarded to the FBI for action. This group of allegations was closed administratively and internally, on December 15, 1989. Concernee D was not notified of this closeout action, nor was any evidence found that the concernee was contacted or kept informed about the FBI referral during the 14 months that the action was pending. Also, no evidence could be found that the physician who initially made the allegation referrals to the NRC was ever contacted, either to acknowledge receipt of his concerns or to inform him of the NRC's proposed or actual action in regard to the matters he raised.

On matters that were referred to the licensee for follow-up, such as the allegation of drug use on site, the licensee's responses were not independently verified.

The case file reveals that Region I staff advised Concernee D of his 30-day DOL appeal rights and procedures by letter on October 30, 1991. The letter told the concernee that he must file a complaint within 30 days of the occurrence of the discrimination (which took place in July 1987). Region I did not receive the allegation until August 1991, well after the 30 day DOL filing period had expired.

The concernee had another series of allegations and complaints both with the NRC and his contract employer. One week after being hired by the contractor, the concernee was fired on sexual harassment charges. The concernee stated that these charges were false and that he was fired in retaliation for his previous whistleblowing to the NRC and his continuing reporting of thefts of company equipment. The concernee filed this case with DOL. The DOL Area Director and a DOL ALJ found in the contractor's favor. The Secretary of Labor subsequently reaffirmed the earlier DOL findings.

The NRC OI began a limited review on January 14, 1993, of the concernee's allegation that his firing by the contractor was illegal. The review consisted of interviewing the concernee and reviewing the DOL files. The investigation was closed on September 13, 1993, on the finding of insufficient evidence of wrongdoing to merit any further expenditure of resources.

In addition, on October 9, 1992, this case was referred to the NRC OIG by Region I in reaction to the concernee's charges of wrongdoing by members of the NRC staff. The OIG investigation was closed by memorandum to the file on February 22, 1993, when the OIG failed to find any evidence to substantiate the concernee's claims of inappropriate action by NRC staff members.

The NRC OE was not involved in this case.

5.1.5 Concernee E

Concernee E began working at Millstone in August 1990 for a contractor until he was fired in 1994. During these 3 years of employment with the contractor, he never received a formal performance review.

Concernee E's wife also worked at Millstone. In December 1993, she complained to her husband about inappropriate conversations taking place both with her and about her that she felt were sexual harassment. Concernee E discussed the alleged sexual harassment with an NU manager. Within 3 weeks of Concernee E's discussion with this manager, he was demoted. He was told the demotion was done for fiscal reasons, and initially accepted NU's reason for the demotion. The following week Concernee E was told he was being demoted again. This demotion was also conveyed to him as being based upon financial reasons. Concernee E felt he had been demoted in retaliation for raising the sexual harassment charge pertaining to his wife, especially since he said he was the only one being demoted while 15 other contractor employees received promotions.

As a result of the demotions and situations discussed above, the concernee presented six concerns to the NU NSCP in discussions with the NSCP Director, which took place in January 1994. The Director recognized the employee's

desire for confidentiality and pledged to conduct an investigation that would protect the employee's identity.

As a result of the NSCP inquiries and meetings with contractor managers, adjustments were made in title and salary of several individuals working for the same contract vendor as the concernee. All of these adjustments were demotions of other employees whose qualifications did not support their present level. No adjustment was made to bring Concernee E back to his previous level as a result of the NSCP effort.

Also in January 1994, Concernee E spoke with two Region I staff members and made non-specific allegations regarding irregularities in radiological surveys, pay records, and radioactive discharge to the environment. He also indicated to the NRC that he felt he had been punished by NU for having raised the sexual harassment complaint on behalf of his wife. He stated that he did not want to give specific information about the allegation unless the NRC offered him confidentiality. NRC Region I management agreed to grant him confidentiality in order to gain more specific information about his concerns.

The concernee spoke with NRC employees several times during mid-February 1994 about his main NSCP concerns. In August 1994, he was interviewed by OI to discuss his alleged H&I.

In September 1994, he filed a complaint with the DOL in which he alleged that his demotion, termination in May 1994, and failure to be rehired by the contractor and NU were acts of discrimination for having raised health and safety concerns since December 1993. In December 1994, he was advised by the DOL Area Director that a "prima facie" case had not been made. DOL found that all the incident complaints in regard to termination and rehiring, would have occurred even in the absence of his protected conduct and activities.

Concernee E appealed the Area Director's decision. Ultimately this case was combined with his second DOL case, which was filed with the DOL in May 1995. He alleged that he had raised nuclear safety concerns from January to December 1994 with his management and the NRC. He charged that as a result of these protected activities, he suffered discrimination.

He had been employed during 1994, working on a contract for NU at Millstone. After the fact finding investigation in July 1995, the Wage and Hour Division determined that NU and the contractor had jointly discriminated against him because he had engaged in protected activities. The two parties were advised to reinstate him to his previous position with back pay retroactive to December 1994, and to pay punitive damages. Both NU and the contractor requested a hearing on the Wage and Hour Division's determination. That hearing was combined with Concernee E's first DOL case, referenced above, and was held in August 1995.

Concernee E was reemployed by the contractor in compliance with the ALJ's decision in March 1996. NU and the contractor have both appealed the ALJ's decision and the case continues to be pending at DOL.

On June 4, 1996, the NRC issued a Notice of Violation to NU and a proposed civil penalty of \$100,000, for this Severity Level III violation, based upon the ALJ's recommended decision and order. The NRC also issued a Notice of Violation citing the contractor for discriminating against an employee engaged in a protected activity.

Also on June 4, 1996, NU issued a press release acknowledging the need to concentrate company efforts in this area, but also stated its disagreement with the DOL finding of the ALJ.

5.1.6 Concernee F

Concernee F filed a concern with the NSCP in May 1993 when he observed a supervisor perform maintenance without an attendant procedure. After several months, a solution that was satisfactory to Concernee F was not provided despite the fact that Concernee F claims that the NSCP manager stated, off the record, that the concern had been substantiated. Concernee F claimed to be harassed by NU management and personnel with whom he worked because he went to the NSCP with his observation.

Concernee F contacted the NRC in July 1993. From that time on, the allegations made by Concernee F contained one or more technical issues of minor safety significance and one or more H&I issues related to people who were reporting safety concerns. Although many of the concerns submitted to the NRC were restatements of older concerns, the receipt of each allegation produced new concerns requiring tracking and evaluation.

A review of the case file indicated that neither the NRC nor the NSCP were able to satisfy Concernee F, even though the process was being followed. The NRC maintained contact with Concernee F, submitted his allegations to an ARB as received, and dispatched inspectors to investigate.

The allegations raised by Concernee F related to H&I were referred to OI and a case was opened in March 1994. In June 1995, OI completed its investigation and reported that it did not find any evidence of discrimination. The DOL also did not substantiate any of the complaints filed by Concernee F.

5.1.7 Concernee G

Concernee G was first employed at Millstone in November 1981. Between July and December 1987, Concernee G used the NU grievance process to raise several concerns associated with alleged violations of NU procedures for controlling the use of overtime. In December 1987, Concernee G expressed dissatisfaction with NU's efforts to resolve his concerns, and advised his manager that he would take his concerns to the NRC. Accordingly, Concernee G henceforth refused to utilize any NU processes for resolving concerns, and for many months he continued to raise numerous procedure compliance concerns through the NRC. Ultimately, in November 1991, NU terminated Concernee G's employment at Millstone.

In January 1988, Concernee G wrote a letter to Region I identifying concerns with NU failure to correct violations of Millstone procedures limiting the use of overtime during safety-related maintenance activities. Until his ultimate termination from NU, Concernee G continued to raise numerous additional concerns involving alleged violations of various maintenance procedures.

After receiving Concernee G's allegation of NU violation of overtime procedures in January 1988, Region I promptly convened an ARB, sent Concernee G an acknowledgement letter, and referred his concern to NU for response. In April and August 1988, Region I conducted follow-up inspections covering NU compliance with overtime procedures, noted several minor discrepancies, and took no enforcement action. Region I sent an allegation closure letter to Concernee G in December 1988, which concluded that observed procedural discrepancies did not represent an inadequacy in overtime control. Following receipt of numerous additional allegations of NU procedure violations between December 1988 and December 1989, Region I sent letters to Concernee G, in January 1990, reporting the current status of Concernee G's allegations. Region I strongly encouraged Concernee G to utilize NU's internal corrective action programs to resolve similar concerns in the future. In June 1990, March 1991, and March 1992, Region I sent letters to Concernee G providing final closure of his technical concerns.

In July 1988, Concernee G filed a complaint with DOL that NU had discriminated against him by lowering his performance appraisal and forcing him to be psychologically evaluated, in retaliation for his having raised safety concerns. Following an initial DOL determination in August 1988, that NU had discriminated against him, Concernee G alleged several additional instances of continued NU discrimination, including his termination in November 1991.

Following receipt of DOL's initial determination of discrimination against Concernee G, Region I promptly convened an ARB, and issued a chilling effect letter to NU in August 1988. However, Region I did not send a letter to Concernee G acknowledging his several discrimination complaints until December 1989. In March 1990, Region I issued an additional chilling effect letter to NU, following notification from DOL that Concernee G and NU had settled a discrimination complaint involving his supervisor, who had been transferred to another position. In February 1992, Region I requested an OI investigation, following receipt of an initial determination by DOL that Concernee G's January 1991 termination was discriminatory. OI completed its investigation in August 1993, concluding that NU's termination of Concernee G was not discriminatory. In February 1994, the NRC staff informed the Commission of its conclusions and plans to refrain from taking enforcement action against NU. Region I notified Concernee G of its conclusions and closed his discrimination allegations in March 1994.

In response to more than 250 allegations submitted by Concernee G to the NRC, Region I issued approximately 12 Severity Level IV or V violations. The NRC concluded that the violations did not represent serious safety concerns, and that most of the problems should have been resolved within the licensee's internal corrective action programs.

5.1.8 Concernee H

In December 1989, the Millstone SRI received information indicating that Concernee H was being subjected to HI&D. The source indicated that Concernee H was being harassed by a Millstone Unit Superintendent and the concernee's immediate supervisor, and was subsequently not selected to fill a vacancy by the Superintendent because of Concernee H's conclusion that FWCI was inoperable and reportable. In addition, the source alleged that the licensee delayed reporting to the NRC that the FWCI system was inoperable. These allegations led the NRC Region I staff to conduct an inspection in January 1990, to determine how the FWCI issue was handled. The inspection did not address the allegations of HI&D. The inspection identified one apparent violation for failure to perform the required engineering analysis to determine FWCI operability in a timely manner.

In addition to the inspection, the NRC Region I Administrator requested, in March 1990, that OI initiate an investigation concerning (1) the alleged HI&D of Concernee H, with the knowledge of senior management, in order to influence the results of the reportability and operability determinations by this employee regarding the FWCI system; (2) the alleged discrimination against Concernee H by senior management in not selecting him to fill a vacant position in retaliation for this determination concerning reportability and operability of the FWCI; and (3) the alleged willful failure of licensee management to address legitimate safety concerns regarding the FWCI system by attempting to influence the results of the operability and reportability determination, while delaying corrective actions and notification and reporting until the required system modification was ready to be implemented.

OI completed its investigation and reported in September 1991 that (1) the concernee was harassed by his supervisor in an effort to influence his evaluation concerning the operability of the FWCI system; (2) Concernee H's supervisor and Unit Superintendent discriminated against Concernee H by not selecting him to fill a vacancy in the Millstone Engineering organization in retaliation for his technical evaluation and conclusion regarding the FWCI system; and (3) the licensee's organization deliberately delayed declaring the FWCI system inoperable, utilizing administrative means and attempts by the Engineering Manager to avoid the issue of reportability. OI referred its report to the Department of Justice (DOJ) in September 1991. DOJ instituted a grand jury and undertook other significant steps in an effort to pursue the matter further. However, in July 1993, the staff was notified that DOJ had elected to decline prosecution of either the licensee or any of the licensee's staff.

After the OI report was issued, the staff carefully considered whether any immediate enforcement action was warranted with respect to Concernee H's supervisor and Unit Superintendent. With respect to Concernee H's supervisor, for the reasons given in the NRC Notice of Violation (NOV) and proposed Civil Penalty (CP) (EA 91-127), the staff agreed with OI's conclusions concerning his discriminatory action against Concernee H. The staff concluded that no immediate action was warranted since the licensee had removed the supervisor from the position of Engineering Manager in January 1991 and placed him in a non-nuclear position at the licensee's corporate headquarters.

With respect to the Unit Superintendent, the staff did not believe there was sufficient evidence to conclude that he was involved in discrimination against Concernee H. The staff issued an NOV based only on the supervisor's discrimination against Concernee H associated with his not being selected for the engineering position and on the licensee's HI&D aimed at influencing the operability determination.

The staff concluded that enforcement action was appropriate with regard to (1) the deliberate failure to take prompt corrective action to address the condition of the FWCI system's inoperability and (2) the discrimination against Concernee H by a senior manager. The staff considered enforcement action to be warranted because of the significance with which the NRC views the failure to resolve promptly a potential safety concern, as well as discrimination against employees who raise such concerns. The first violation (related to the licensee's failure to take prompt corrective action following the identification of the FWCI problem) would normally be classified at Severity Level III in the absence of willfulness. However, in this case, the staff considered the deliberate manner in which the licensee's staff had delayed an operability decision concerning the FWCI system. For this reason, and in accordance with the Enforcement Policy, the staff increased the severity level of this violation to Severity Level II. In addition, the staff found that the licensee's deliberate delay in making an operability determination on the FWCI system, which spanned the period from mid-June 1989 (when substantial questions surfaced about FWCI operability) to November 17, 1989 (when the system was finally declared inoperable), constituted a continuing violation and, therefore, the CP for this violation was not limited to \$100,000. Application of the adjustment factors to this continuing violation resulted in a CP of \$120,000. The second violation, related to the discrimination against the concernee, was classified at Severity Level II because of the high level of the licensee's manager involved in the discrimination. A \$100,000 penalty was imposed for this second violation, resulting in a cumulative penalty of \$220,000.

On July 13, 1994, the NRC staff issued the NOV.

5.1.9 Concernee I

Concernee I filed a complaint with the NRC in March 1988 related to co-workers not following safety-related procedures and management not listening to safety-related complaints. After an ARB, both concerns were assigned to the Resident Inspector's Office for follow-up.

In April 1988, Concernee I filed a DOL complaint against NU. In the complaint, Concernee I listed the adverse employment actions taken by his supervisor since his nuclear safety concerns were identified to his supervision. DOL informed NRC of the complaint in May 1988.

In a June 1988 letter, Region I informed Concernee I that the procedural adherence concerns he had raised were unsubstantiated and the allegation would be closed. In the letter, Concernee I was also informed that Region I would follow the outcome of the DOL case.

The DOL Area Director found in favor of Concernee I. NU filed an appeal requesting a hearing with an ALJ and the NRC sent a chilling effect letter to NU.

In July, the NRC was informed of Concernee I's decision to withdraw the DOL complaint, citing lack of money to retain a counsel as the major reason. After receiving his request to withdraw the complaint, the ALJ dismissed Concernee I's case against NU.

After raising another concern to the NRC, Concernee I was asked several questions by one of the Millstone resident inspectors. When asked why his concerns were not brought up to his supervisors and why the NU employee concerns program was not used, Concernee I responded that "management doesn't want to hear his story" and he believed that his confidentiality would be compromised and management would then retaliate against him. In the letter acknowledging the allegation, Region I reminded Concernee I of the 10 CFR 19.12 requirements to report conditions that could violate regulations to the licensee and encouraged Concernee I to "be diligent in fulfilling your 10 CFR 19.12 responsibilities."

Based on information obtained during an allegation follow-up inspection in June 1989, OI, in September 1989, commenced an investigation into potential HI&D of Concernee I and other concerned individuals.

In August 1991, OI issued its final report, stating that NU had discriminated against Concernee I for raising safety concerns. The NRC OE disagreed with this conclusion and believed that the actions taken against Concernee I were taken to deal with personality conflicts in the workplace.

Based on the disagreement between OI and OE, completion of Concernee I's case was delayed pending completion of additional OI investigations. After completion of the OI investigations in 1993 and further evaluation by OE, the advice of the Commission was sought in 1994 due to the age of the issues and continuing disagreement between OI and OE. In March 1994, OE was informed that the Commission had no objection to issuing letters to Concernee I and the other concerned individuals to explain that enforcement action would not be taken against NU. In March 1994, Region I informed Concernee I that while OI found discrimination against Concernee I had occurred, the remainder of the staff could not find sufficient evidence to conclude that he was discriminated against by NU for engaging in protected activities, and NRC would take no further action.

6.0 SUMMARY

The MIRG jointly evaluated (1) numerous records and reports contained in the nine selected case files, (2) a third-party audit that had been issued in May, 1995, and (3) approximately 3000 pages of transcribed interviews and attachments that were developed between May and July, 1996. This material was reviewed to identify root causes of NU problems in handling and processing employee concerns and allegations, and to determine how effectively the NRC staff had handled and processed these concerns and allegations.

During its evaluation, the MIRG reviewed the nine case files in depth to uncover problems and issues, and then wrote case characterizations to summarize the reviews. The MIRG conducted more than 40 structured interviews to develop the process issues it found. The interviews were focused on concerned individuals whose cases had been reviewed, selected NU personnel, and responsible NRC staff members.

Consistent with its charter, the MIRG interviewed people on the basis of the information they could provide relative to the process and the apparent problems that had been identified during the case characterizations. Contrary to the views expressed by the licensee in the public exit meeting, it was not the purpose of this review effort to select a random sample of NU personnel to interview that would be representative of the entire cross section of employees at Millstone. The mission was to critically evaluate both the licensee's and staff's handling and processing of the selected cases to understand the root causes and develop lessons learned. The team concluded that the focused sample of NU personnel that was selected to interview for this review effort was appropriate and consistent with the team's charter.

The evaluators grouped the information that had been developed into either NRC or NU problem areas. The NU information was further grouped into common patterns and themes from all collected data. The majority of the NU information was determined to stem from longstanding cultural problems that existed at the Millstone Station.

The MIRG continued deliberations on the NU cultural themes to arrive at root causes. A root cause was defined as the most basic cause that could reasonably be identified and that management has control to fix. The team ultimately came up with a set of probable root causes that captured most of the cultural data that had been collected for NU.

A similar process was used to arrive at the list of NRC process problems.

During the course of its evaluation, consistent with agency policies, the MIRG made 13 referrals to OI, six referrals to OIG, and two referrals to the staff for follow-up on management issues.

7.0 ROOT CAUSES FOR NU PROBLEMS

The team identified seven cultural areas of emphasis that it developed into root causes. Because these areas cannot be clearly prioritized, it is important that the reader not attach undue significance to the order of presentation.

7.1 Problem Resolution and Performance Measures

The team concluded that ineffective problem resolution processes have contributed to continued employee concerns at Millstone, forcing reliance on the Nuclear Safety Concerns Program (NSCP) process to resolve concerns that should have been corrected by routine processes. Examples of problem areas are faulty root cause processes, ineffective corrective action follow-through, lack of appropriate performance measures (especially in the area of measuring

employee trust and confidence), and cumbersome management decisionmaking processes. The team also concluded that a lack of visible progress in resolution of concerns identified by a 1995 NSCP self-assessment team has further eroded the confidence of Millstone employees that NU is serious about correcting the fundamental problems described in that self-assessment. Furthermore, several employees expressed concern that, based on experience, top management is unlikely to support the fundamental actions needed to effect change at Millstone.

- Many of the Millstone employees interviewed perceived NU as good at identifying problems; however, once identified, problems were either studied and rationalized to the point of diffusion, or solutions were implemented without appropriate follow-through. As a result, especially when employee concerns were the source, only symptoms (not root causes) were typically addressed. An employee concern involving inoperability of the feedwater coolant injection system (FWCI) was noted as an example of inadequate root cause evaluation and corrective action follow-through. Also, a 1991 NU self-assessment of employee concern problems was frequently offered as a significant example of NU failure to follow through with effective solutions to problems that continue today.
- A lack of appropriate performance measures has presented an obstacle to the resolution of problems affecting Millstone employee trust and confidence. Also, management has been perceived as ineffective in correcting many manager/supervisor/employee relationship and communication problems. Although training often took place, appropriate performance measures were not always implemented to ensure that the training was effective. Employees viewed management as saying the right words to correct problems, but not taking the right actions to ensure realistic feedback that the problems were in fact getting solved.
- Several Millstone employees expressed concern that the management decisionmaking process has contributed to ineffective problem resolution at Millstone. In particular, past practice placed too much emphasis on management consensus that any given issue was in fact a problem. As a result, some problems were not resolved. A third-party audit by an NU consultant documented a similar finding in May 1995.
- Several Millstone employees noted that NU had failed to adequately utilize its resources to efficiently and effectively resolve problems. Most noteworthy in this regard were numerous observations that none of the personnel assigned to the 1995 NSCP self-assessment team were utilized to help implement the results of this highly effective and revealing audit. Not only did these people know a lot about the details and root causes of the identified problems, but many of them felt disenfranchised by management's failure to fully enlist their help to resolve those problems. Some of these individuals noted a lack of visible progress on recommended corrective actions, and expressed concern that, just as with previous self-assessments, their recommendations would not be effectively implemented. The team noted that, aside from seemingly complicating resolution of the critical issues addressed by the 1995 audit, NU appeared to have created a

chilling effect among the very employees that were assigned to do the self-assessment.

Based on the interviews of senior NU officials, it was apparent that management was aware of this problem area and the need to improve, particularly in the area of performance measures. A number of steps had been taken or were being considered at the time of the team visits. It should also be noted that all of the employees interviewed by the MIRG who had served on the self-assessment task force remain firmly committed to making improvements at Millstone and are hopefully optimistic that positive changes will be made.

7.2 Sensitivity to Employee Needs

The team noted that some NU employees continue to perceive some managers as being insensitive to employee needs, thus creating some work environments in which dissent is discouraged.

- The occurrence of three significant discrimination violations within the last ten years indicated to the team that NU management had created a chilling effect at Millstone, and had done little to improve the work environment when made aware of discrimination. The team also noted that a consultant, hired earlier by NU, had concluded that some instances of discrimination may have been intentional, yet NU management appeared to dismiss these findings.
- The MIRG interviewed some managers who evidenced insensitivity to the current state of employee concerns at Millstone. For example, some managers had not read the recent self-assessment, or were unfamiliar with the status of action plans to correct the identified problems.
- An NU lawyer was accused of laughing at a concernee during an ALJ proceeding, creating a perception that dissent is discouraged and that employees who raise concerns may be subjected to personal humiliation and unprofessional treatment. In another instance, NU was perceived to have used a public meeting to enlist other employees to speak out against one who raised a concern.
- Some managers were perceived as being unskilled in dealing with concerned employees, and were considered by some employees to have been inappropriately promoted based only upon technical skills.
- Some employees perceived that the NSCP has not always maintained employee anonymity. In some instances, employees who came to the NSCP reported that they were identified to managers.
- Some former employees stated that employees had been told not to associate with certain concernees.
- Some former employees stated that they had been blacklisted for speaking out on safety issues, and believed that many other employees, who had previously raised concerns, had been removed from Millstone.

Videotapes of recent management meetings revealed that upper management had been articulating their expectations in this area, and the interviews reflected that management was aware of the need for enhanced sensitivity to employee needs.

7.3 Reluctance to Admit Mistakes

The team concluded that management's reluctance to admit its mistakes has significantly impeded efforts to improve the corporate attitude toward Millstone employees who raise concerns. Among the significant examples of this tendency are a legalistic approach to dealing with employees and their concerns, protracted study of problems, continued denial of discrimination findings, the prevalence of a "shoot the messenger" attitude, and a failure to recognize the need for credible, independent assessment of discrimination concerns at Millstone.

- Previous NU self-assessments and several employees stated that management has taken too legalistic an approach in its dealings with employees and their concerns. The use of lawyers for many employee-related problems and a legalistic approach to many concerns raised by employees has created a chilling effect among some Millstone employees. Similarly, several current and former employees expressed the opinion that management has used the Human Relations Department, at times, to discredit or intimidate concerned employees.
- NU management has been reluctant to admit fault for DOL or NRC findings of discrimination at Millstone. Within hours of receiving notification of discrimination findings, management has consistently issued memoranda to its employees and the public denying or minimizing NU culpability. Similarly, following findings of discrimination, NU has hired a succession of consultants in apparent efforts to refute DOL or NRC findings.
- A review of case files noted an instance of a supervisor denying that he had acted inappropriately, even after the NSCP had determined that his actions were inappropriate and he had received a written reprimand.
- Several people currently employed at Millstone have expressed the opinion that some managers have retained a "shoot the messenger" attitude. As an example, these employees have stated that management's frequent reaction to significant problems is to commission a special audit to rebut any negative findings. Other employees have expressed the opinion that NU dismisses the findings of consultants who substantiate negative findings and usually does not rehire them for work at Millstone.
- Numerous employees observed that some NU managers and supervisors were inclined to defend the status quo, and would not listen carefully and with an open mind to employee concerns. As a result, employees get the message that a questioning attitude is neither encouraged nor appreciated.

- The team concluded that some NU management has not consistently recognized the need for independent investigation of discrimination concerns at Millstone. For example, a recent NSCP letter to an employee concerned about the loss of his job appeared to be based entirely on an in-house investigation, and did not provide a credible basis for rejecting his concern. In this regard, the team noted that some current Millstone employees strongly believe that filing concerns with NSCP is futile.

7.4 Management Style and Support for Concerned Employees

Several individuals at various organizational levels expressed the view that top leadership at NU has condoned an arrogant management style, for both technical and administrative functions, and has not been supportive of concerned employees. They felt that this deficit had been particularly noticeable in the human relations area, where the tendency to develop a legalistic approach to contest DOL findings of discrimination was evident. The team concluded that this perceived management style had the potential to stifle dissenting views.

- Because management does not typically acknowledge the presence of retaliation, it was widely perceived that management had not taken disciplinary action against supervisors for retaliatory actions against subordinates.
- Several people who were interviewed indicated that engineering management has historically allowed an attitude of technical conceit to influence decisionmaking, which resulted in a lack of conservatism, and promoted an atmosphere not conducive to raising safety concerns.
- Many people we interviewed felt that too much emphasis was placed on technical skills in the selection process for management positions. As a result, the interviewees felt that the best individuals for management positions (those with good people skills) were not always selected.
- Several individuals expressed the concern that top NU managers have not been effective listeners and, on the contrary, had on occasion arrogantly boasted that they were irreplaceable.
- Several employees commented that some NU managers have not encouraged a questioning attitude by employees, and have failed to promptly address and resolve concerns that were raised.
- Several employees noted that some NU managers have not tendered positive incentives to encourage employees to raise safety concerns. These managers have not routinely encouraged a questioning attitude and recognized employees for exhibiting such an attitude. To the contrary, the team noted that some high-level NU managers have made statements that degraded employees who had raised concerns to the NRC.
- Some employees indicated that they do not trust the recent management reorganization, which they view as little more than a shuffle of the

same individuals responsible for many of the current problems. These employees appeared to be looking for leadership that can provide support to their concerns.

- Some employees stated that managers did not always get back to employees with follow-up on concerns raised through the chain of command.

Interviews with NU management personnel indicated a recognition of the need for improvement in the selection process for management positions at Millstone. It was also evident that management had begun a dialogue to encourage a questioning attitude throughout the organization.

7.5 Communications and Teamwork

Communications appeared to be a continuing problem area, characterized by poor inter-departmental interaction, general failure to encourage questioning attitudes, and a tendency to manage by memorandum. Ineffective implementation of the concept of teamwork also appeared to have contributed to employee concerns at Millstone.

- Numerous employees indicated that communications between and among corporate managers, site managers, and site employees has frequently been ineffective. A review of case files revealed several instances in which the actions of managers and supervisors were not effectively communicated to the individuals directly affected by the actions. Some examples of such ineffective actions are communication of the bases for performance evaluations, communication of reasons for disciplinary actions, and communication of reasons for delays in responses to concerns raised to management.
- Several employees felt that they were unable to talk to their managers, and were unclear about how NU management planned to recover from its present problems. Other employees expressed concerns related to uncertainty about the ultimate direction of reengineering.
- Some employees expressed concern that inadequate communication flow between sites had fostered inappropriate competition between site organizations, and contributed to difficulties bringing about multi-unit change.
- Some managers were perceived as having managed their organizations via memorandum (issuing unilateral directions) rather than by ensuring meaningful communication with employees out in the work place.
- The DPO process did not appear to have been effectively communicated to employees. For example, several employees and one senior manager were unable to explain the DPO process.
- Some aspects of the NSCP did not appear to have been effectively communicated to employees. For example, certain employees did not fully understand the confidentiality aspects of the program.

- The team noted that some managers were not aware of the magnitude of the problems outside their own organization. One manager, responsible for implementing a recent employee concerns assessment action plan, indicated he had not read the report, and some managers stated that they were not aware of the implementation progress made by other managers.
- Some employees perceived a recent unit newsletter as improperly suggesting that employees should not raise concerns to the NRC or to other outside organizations. It was noted that management recognized this perception and had the article rewritten in the next edition.
- The team concluded that the concept of teamwork did not appear to have been effectively implemented at Millstone, as evidenced by two examples. In one example, the term "team player" was perceived by some employees as discouraging dissenting opinions and, in the other example, an unrealistic perception of the need for total consensus resulted in frustration over delayed management decisionmaking.
- The team noted that some former employees (while they were still employed at Millstone), were inappropriately excluded from decision making processes since they were not viewed as team players after they raised safety concerns.

7.6 Management Accountability

A general lack of management accountability and sense of ownership appeared to have contributed to current problems at Millstone. Managers were perceived as providing more emphasis on justifying the status quo, than on aggressively addressing and resolving employee-identified problems. Also, employees considered that supervisors responsible for discriminating against employees were not routinely disciplined in an appropriate manner.

- Some managers were seen as avoiding personal dealings with employee concerns by inappropriately referring concerns to the NSCP or to legal staffs. Furthermore, many employees felt that the legal staff and managers had too much influence in the company, particularly in the employee concerns area.
- Some managers have not routinely demonstrated an aggressive attitude toward prompt resolution of such employee-identified technical concerns as feedwater coolant injection and containment isolation (CU-29) valve problems.
- The team noted that a lack of position descriptions for some employees and managers appeared to have left both groups uncertain about their duties, responsibilities, and authority. Although management was aware of this problem, it did not appear to have taken effective action as yet to fully remedy the problem.
- Some supervisors and managers were perceived as not being properly evaluated on their past dealings with concerned employees, or for their support or implementation of the NSCP.

- Some managers have been reluctant to utilize credible, independent resources to investigate discrimination concerns at Millstone and, on the few occasions that independent reviews have found discrimination, those findings were discounted.

The team was advised during interviews with responsible NU managers that action was beginning to be taken to establish accountability and evaluate supervisory performance in the handling of employee concerns. It was also acknowledged that efforts were underway to provide position descriptions.

7.7 NSCP Implementation

On the basis of the large number of allegations received by the NRC, the team concluded that the NSCP has not been an effective vehicle for resolving employee concerns at Millstone. The team noted some indication of management support deficiencies, including inadequate NSCP resources, and insufficient independence and authority for NSCP to fully resolve issues.

- Many employees expressed the concern that routine NU corrective action programs have been ineffective in resolving employee concerns in a timely manner.
- Some employees were concerned that the Director of NSCP reports to a Vice President, and does not have appropriate independence or authority to properly address or resolve employee concerns.
- Recently, a Millstone self-assessment team concluded that a lack of appropriate line management support has resulted in a large backlog of unresolved NSCP issues.
- Some former Millstone employees indicated that frustration over the inability of the NSCP process to effectively resolve their concerns had contributed to their having raised so many allegations to the NRC.

During the interview process, the team was informed of actions that were underway, or had recently been taken, to increase NSCP staffing levels.

8.0 NRC PROCESS ISSUES

The team identified six NRC process areas of interest that offered room for continued improvement. Because these areas cannot be clearly prioritized, it is important that the reader not attach undue significance to the order of presentation.

8.1 Staff Sensitivity and Responsiveness

The team concluded that, historically, allegations have not always received the level of NRC attention that was warranted. A lack of appropriate sensitivity to allegations appeared to be manifested by a general attitude that allegations were a necessary burden that drew NRC attention from more important matters. The most significant impact of this attitude appeared to result in an under-reaction to allegations of discrimination. In particular,

it appeared to the team that potential discrimination by itself was not always recognized as a significant safety issue, unless paired with an apparently valid significant technical issue. This attitude also appeared to result in several instances of inappropriate NRC sensitivity to alleged needs and inadequate response to their concerns. Examples included inadvertent compromise of alleged identity, inappropriate priority for OI investigations, inadequate independent verification of licensee responses to referred allegations, and untimely or incomplete response to alleged concerns.

- An April 1989 ARB appeared to under-react to an alleged discrimination concern by indicating the discrimination concern had "no" safety significance.
- A May 1989 NRC letter closed out an alleged discrimination concern, based on alleged referral of the concern to the licensee, without any independent follow-up.
- NRC letters to Concernee I in October 1988 and Concernee G in January and July 1990, appeared to be insensitive to their discrimination concerns by emphasizing that they should have taken their concerns to NU rather than to the NRC.
- It does not appear that the NRC sent Concernee C appropriately timely acknowledgement letters or periodic status letters on the progress of NRC action on his concerns. The first NRC letter to Concernee C in response to his discrimination concerns, which were pointed out to the NRC in October 1989, was not sent until May 1993. Although there were relatively frequent discussions with Concernee C, the NRC never sent Concernee C a formal letter closing out his concerns.
- NRC did not acknowledge discrimination complaints received from Concernee G in July 1988 and in April 1989.
- NRC did not formally acknowledge or address numerous problems that Concernee G submitted between 1988 and 1989 until January 1990.
- NRC did not follow up on an allegation submitted by Concernee A in August 1992 until August 1993.
- It did not appear that the NRC responded appropriately to a June 1993 letter from Concernee C questioning the severity of NRC enforcement action against NU and its officers. The NRC response was not helpful to Concernee C and did not give any additional specific information regarding the basis for the NRC's determinations.
- An interviewee indicated that in 1988 he raised an issue to the resident inspector regarding his dispute with NU management over payment of overtime. The resident inspector subsequently discussed the issue of non-payment of overtime with the concernee's supervisor. Based on that conversation, the resident inspector knew of the concernee's supervisor's attitude towards the concernee because of the concernee's allegation to NRC, but failed to advise the concernee of his DOL rights.

This indicated to the team that a potential chilling effect was not recognized by the resident.

The team recognized that Management Directive 8.8, "Management of Allegations" issued May 1, 1996, had implemented many of the improvements that were recommended in NUREG-1499, "Reassessment of the NRC's Program for Protecting Allegers Against Retaliation," dated January 1994. The team also noted that the Commission Policy Statement on Protecting the Identity of Allegers and Confidential Sources was issued on March 5, 1996. Thus, staff initiatives have been taken that should effectively resolve this area of concern, although additional measures will be proposed by the team to further strengthen staff sensitivity and responsiveness.

8.2 Discrimination Follow-up

The team concluded that, in some cases, NRC processes for following up on licensee correction of discrimination problems have not been fully effective, especially for cases involving NU denial of problems involving discrimination or a chilling effect. As a result, discrimination continued and chilling effect escalated. Also, NUREG-1499 included recommendations to improve NRC processes for addressing employee concerns that have not been fully implemented. Further, it appears to the team that no one NRC office has programmatic oversight for discrimination follow-up.

- It appears that the NRC's reaction to NU's continued denial of problems involving discrimination or a chilling effect at Millstone following escalated enforcement action in May 1993 could have been stronger. The July 1993 NRC acknowledgement of NU's response focused primarily on the NRC conclusion that discrimination had occurred and that further discussion was unnecessary. The letter did not appear to emphasize the remedial purpose of NRC enforcement action, in that it did not address the potential chilling effect of NU senior management's arrogant attitude or refusal to admit mistakes.
- The NRC did not appear to have provided appropriate follow-up inspection of NU's proposed corrective actions following the May 1993 discrimination enforcement action. A June 1993 team inspection of NU's PEP did not review specific licensee corrective actions for the May 1993 enforcement action, yet concluded that the NSCP appeared to thoroughly handle employee concerns and noted no indication of chilling effect. The NRC did not provide additional follow-up inspection in this area until December 1995, and that inspection was significantly more positive than a critical licensee self-assessment conducted during the same time frame.
- Some of the recommendations made in NUREG-1499 to strengthen NRC processes for addressing employee concerns are not yet implemented, and progress toward implementation has not been effectively communicated to the public. Some individuals expressed the concern during interviews that this lack of progress has affected public confidence in NRC's commitment to improve in this area. For example, NRC has not developed

a credible survey instrument for assessing a licensee's environment for raising concerns.

The team acknowledges the many initiatives that have been implemented by the Agency Allegation Advisor and OI to improve follow-up on discrimination cases. Additional considerations will be proposed by the team to further strengthen the Agency's position in this area.

8.3 Enforcement

The team concluded that, in some cases of discrimination or alleged-identified violations, the NRC has not sent a clear enforcement message to either the industry or the public. In these instances, a lack of appropriate enforcement emphasis has created a chilling effect, in that many Millstone employees view the NRC as being soft on discrimination and alleged-identified problems. Furthermore, the team noted a perception among some allegeders that the NRC has not consistently enforced regulations having a potentially generic impact on the nuclear industry.

- In May 1993 the NRC issued a Severity Level II violation and \$100,000 civil penalty to NU for discrimination at Millstone. The cover letter to the enforcement document emphasized that the violation was "particularly significant to the NRC because officers of the company were either directly participating in the discrimination (Vice President), or were aware of it, but failed to act in an effective manner to correct the situation (CEO, President, and Senior Vice President)." The team considered that this enforcement action sent an unclear message to both the licensee and the public: the cover letter emphasized that corporate management was involved in the discrimination, but the enforcement action did not include a Severity Level I violation. This enforcement action has been perceived by some as not clearly implementing the NRC Enforcement Policy, and was viewed as having contributed to a chilling effect at Millstone.
- Enforcement action was not taken after an August 1988 NRC follow-up inspection of NU violation of overtime control procedures. Since the NRC had cited NU the previous year for overtime control violations, and since additional overtime control problems were identified by an allegeder, and confirmed by the NRC in April 1988, the team concluded that an additional citation appeared warranted. Absent the additional citation, a specific message on overtime control was not reemphasized, and NU was not sent a general message about the need to correct such problems without necessitating allegations to the NRC.
- The team noted some instances of lengthy and protracted NRC effort to complete enforcement actions for potentially generic issues. For example, OIG concluded that the NRC took an inordinate amount of time to complete enforcement actions associated with Rosemount transmitter oil leakage problems. Some allegeders perceived this type of delay as indicating a reluctance on the part of the NRC to aggressively enforce regulations having a potentially generic impact on the industry.

Protracted NRC efforts to enforce generic requirements for motor-operated valves was mentioned as another such example.

The team acknowledged that Revision 1 to the Enforcement Manual had been issued in November 1995. Many of the recommendations from NUREG-1499 were incorporated in this revision. The team concluded that while much improvement has been made in the area of enforcement over the last few years, opportunity for further improvement exists. Additional measures will be proposed by the team to further strengthen the area of enforcement.

8.4 Inspection Techniques and Performance Measures

The team concluded that NRC inspectors, in general, are not qualified to effectively detect or assess potential discrimination environments at licensee facilities. In particular, the team noted that employees are unlikely to respond honestly to direct NRC surveys on chilling effect. As a result, the team considered that some previous NRC inspections reached inaccurate conclusions regarding the extent of a chilling effect on Millstone employees. Furthermore, similar to NU, the NRC had not implemented effective measures to detect the presence of a chilling effect at Millstone which affected the ability of employees to raise safety concerns without fear of retribution.

- NRC inspection reports issued in October 1990 and December 1995 noted the lack of a chilling effect at Millstone, in marked contrast to contrary findings by licensee self-assessments performed during the same time periods.
- An NRC report issued in March 1992 appeared to underreact to the nature of a chilling effect at Millstone in that it did not recognize the significance of a small number of people raising discrimination concerns.

The team will propose measures to improve Agency performance in this area.

8.5 DOL/NRC Interface

Many of the individuals interviewed expressed the concern that the NRC has abrogated its employee protection responsibilities to DOL. In particular, the NRC was viewed as not taking definitive action to enforce regulations prohibiting discrimination, pending completion of the very lengthy and costly DOL appeal process. Also, some allegers and their attorney stated that the fact that licensee attorneys may be present during discrimination investigation interviews places the allegers and their attorneys at a disadvantage.

- Several individuals stated that the NRC and DOL have failed to properly coordinate the enforcement and remedy processes. This failure has caused NRC enforcement to be delayed for years after an occurrence of discrimination, resulting in a significant increase in the impact of discrimination at Millstone.

- Several individuals expressed the additional concern that, since the DOL appeal process is so lengthy and costly, most employees are forced to settle their discrimination claim without benefit of a final DOL discrimination decision and without appropriate NRC enforcement follow-through.
- Because of the presence of licensee attorneys during discrimination investigation interviews, licensee attorneys were viewed as obtaining privileged information that was withheld from allegeders and their attorneys, placing them in an unfair position in subsequent litigation.

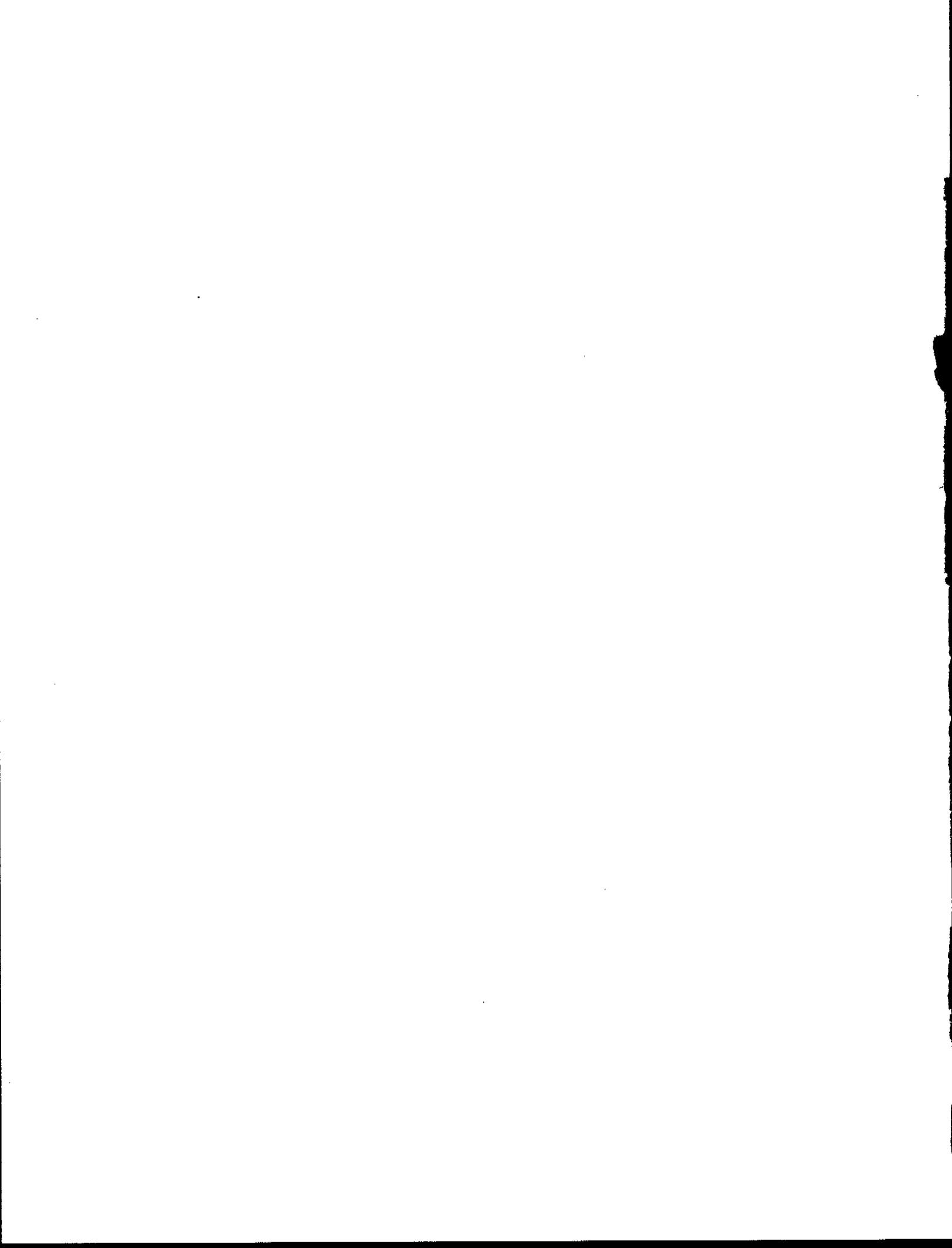
The team acknowledged the numerous initiatives being taken by OI to improve the interface with DOL and DOJ. Additional measures will be proposed by the team to further strengthen the interface with DOL/DOJ.

8.6 Allegation Program Implementation

Review of allegation case files found several examples of allegation program implementation problems in the areas of overall program accountability, recordkeeping, and staff training.

- Until recently, for a number of years, no one individual was accountable for overall implementation of the NRC allegation program. Assignment of responsibilities related to implementation of the program was considered a collateral duty for various individuals. As a result, the program was implemented piecemeal, and the NRC was not able to effectively integrate discrimination issues on a nationwide basis, potentially contributing to untimely recognition of the extent of discrimination problems at Millstone.
- A 3-year lapse in performance of agency-wide allegation program audits may have contributed to untimely detection and correction of allegation program problems.
- A previous NRC review found that some NRR project managers, having frequent contact with licensee personnel and potential for receipt of allegations, had not been trained for this task. Also, measures were not in place to determine how effective the training program was.
- The team noted several examples of allegation recordkeeping problems, such as lack of clear documentation of the basis for NRC decisions involving low safety significance, but potentially high regulatory significance; lack of clear documentation of the full extent of an employee's allegations; lack of clearly documented rationale for assigned OI priorities; and unclear documentation of the basis for referring potentially sensitive allegations to the licensee.

Although the team noted that the Agency Allegation Advisor's initiatives appear to address these concerns, additional measures will be proposed to further improve implementation of the Allegation Program.



APPENDIX 9.1





UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 12, 1995

MEMORANDUM FOR: William T. Russell, Director
Office of Nuclear Reactor Regulation

FROM: James M. Taylor, Executive Director
for Operations 

SUBJECT: INDEPENDENT REVIEW OF MILLSTONE STATION AND NRC
HANDLING OF EMPLOYEE CONCERNS AND ALLEGATIONS

Since the late 1980's Millstone Station has been the source of a high volume of employee concerns and allegations related to safety of plant operations and harassment and intimidation of employees. NRC has conducted many inspections and investigations which have substantiated many employee concerns and allegations. The licensee has been cited for violations and escalated enforcement has been taken. Notwithstanding these NRC actions, the licensee has not been effective in handling many employee concerns nor implementing effective corrective action for problems identified.

NRR is to conduct an independent evaluation of the history of the licensee's and the staff's handling of employee concerns and allegations related to licensed activities at Millstone station. NRR's review should include in-depth case studies of selected employee concerns and allegations to identify root causes, common patterns between cases and lessons learned.

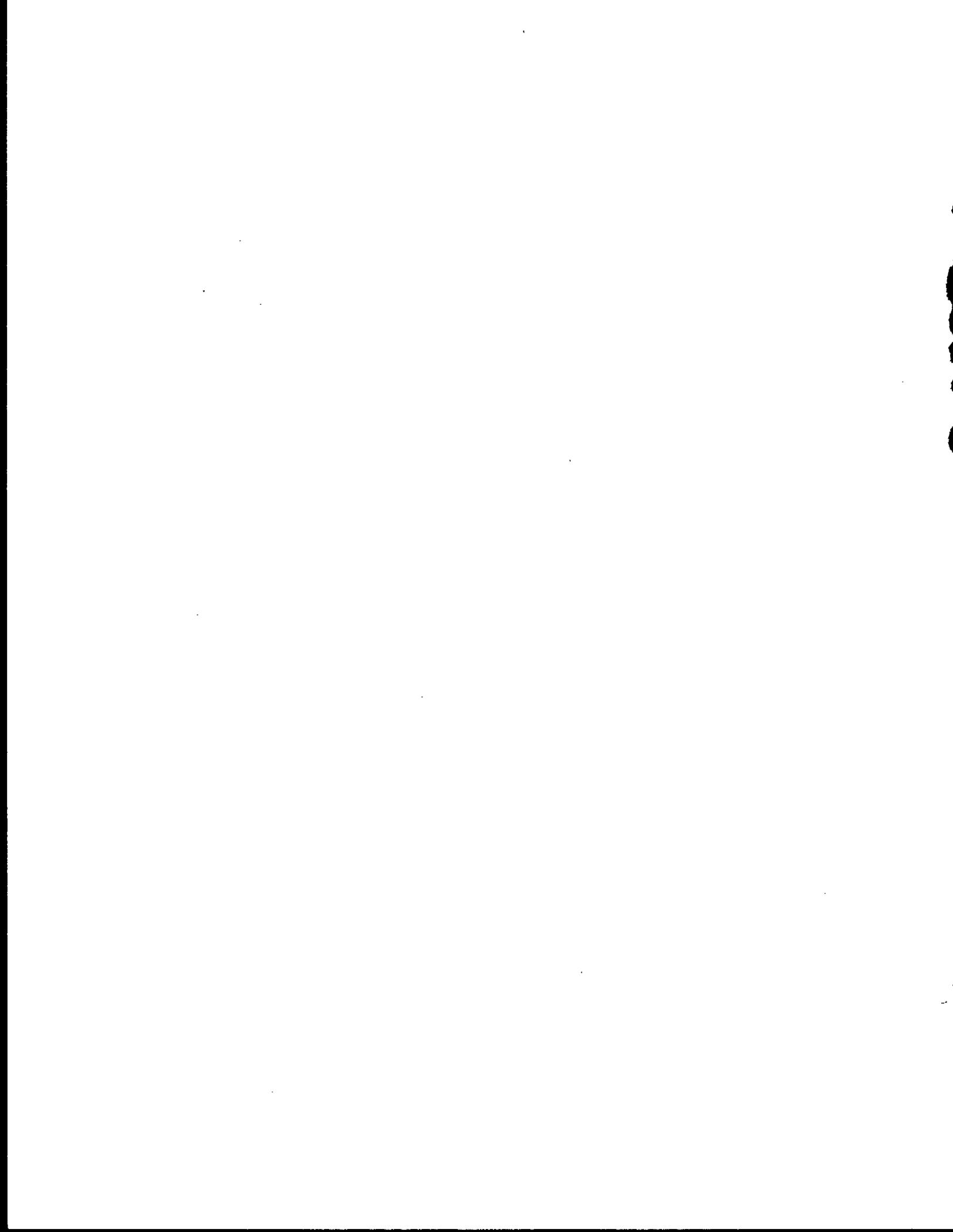
A broad outline of the objectives and scope of the NRR review is attached. The review should be led by a full time SES manager with appropriate senior NRR management oversight. You should develop a plan of action and detailed schedule for this effort by December 29, 1995. I would like to be briefed on progress in 60 days with a goal to complete your review by April 30, 1996.

By copy of this memorandum, Region I, OI, IG and OE are requested to provide records and reports and make appropriate staff available for interview by the Task Force, as requested.

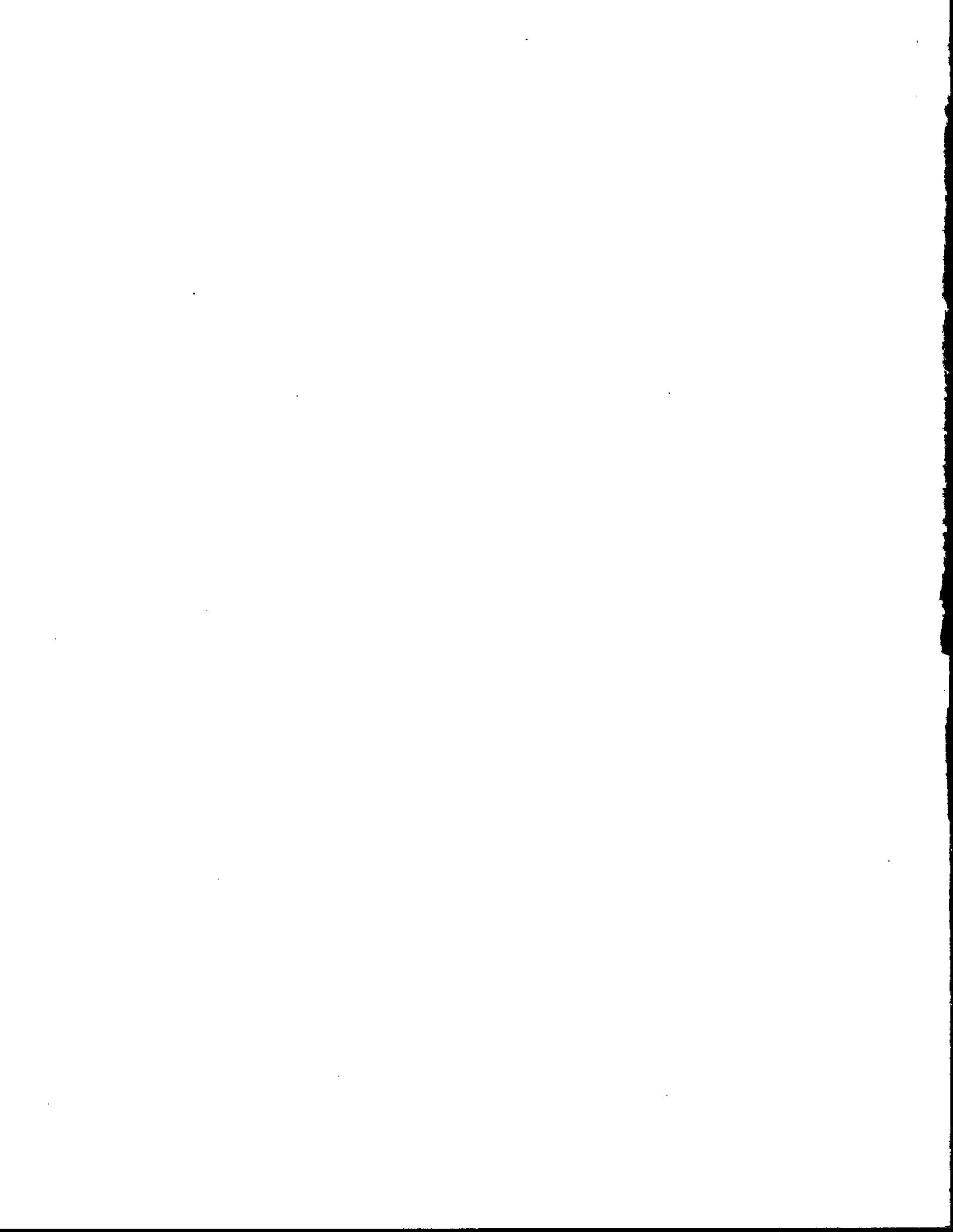
Attachment: As stated

cc: (w/attachment)
T. Martin
L. Norton
G. Caputo
J. Lieberman

ATTACHMENT 1



APPENDIX 9.2





NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20545-0001
December 20, 1995

MEMORANDUM TO: William T. Russell, Director
Office of Nuclear Reactor Regulation

FROM: Roy P. Zimmerman, Associate Director for Projects
Office of Nuclear Reactor Regulation

SUBJECT: MILLSTONE EMPLOYEE CONCERNS/ALLEGATIONS INDEPENDENT REVIEW
GROUP WORK PLAN AND SCHEDULE

The EDO's memorandum of December 12, 1995 (Attachment 1) directed NRR to conduct an independent historical evaluation of both the licensee's and staff's handling of Millstone employee concerns and allegations in accordance with a specified scope and objectives. A detailed work plan and schedule for the effort is provided as Attachment 2.

You have tasked me to provide broad management oversight and guidance to the Independent Review Group. The attached work plan will be implemented under the full-time leadership of Herbert M. Berkow. The following people are assigned as members of the Group:

Mohan C. Thadani, NRR
Carl A. Mohrwinkel, NRR
Richard M. Pelton, NRR
Forrest R. Huey, RIV
Edward T. Baker, NRR (Adviser)

cc: J. Taylor
T. Martin
M. Thadani
C. Mohrwinkel
R. Pelton
F. Huey, RIV
E. Baker

Approved: William T. Russell
William T. Russell

**INDEPENDENT REVIEW OF MILLSTONE STATION AND NRC
HANDLING OF EMPLOYEE CONCERNS AND ALLEGATIONS**

Objectives:

For the period from 1985 to the present, critically evaluate both the licensee's and NRC staff's effectiveness in addressing Millstone-related employee concerns and allegations. Determine root causes and common patterns for identified deficiencies and develop recommendations for licensee actions related to the Millstone station for improvements in handling of employee concerns and for NRC staff actions related to handling of allegations.

Scope of Effort:

1. Conduct a broad based review of licensee and NRC allegation files, 2.206 petitions, related inspection reports, OI and OIG investigations, enforcement actions, DOL actions and prior NRC management reviews from 1985 to present.
2. Select 6 to 12 cases for indepth evaluation. In addition to review of relevant documentation, conduct structured interviews of involved NRC staff, licensee management and concerned licensee employees as necessary to ensure an accurate record of the handling of selected case studies. Develop a case history outlining the problems, licensee's responses, and the NRC actions. Critically evaluate both the licensee's and staff's handling and processing of the case to identify root causes, common patterns and lessons learned.
3. Based upon the broad review and case studies, develop lessons learned and recommend both plant-specific and programmatic corrective actions.

MILLSTONE EMPLOYEE CONCERNS/ALLEGATIONS INDEPENDENT REVIEW GROUP WORK PLAN

1.0 BACKGROUND AND OBJECTIVE

By memorandum of December 12, 1995, the Executive Director for Operations (EDO) tasked the Director, Office of Nuclear Reactor Regulation (NRR), to conduct an independent evaluation of the history of the licensee's and the staff's handling of employee concerns and allegations related to licensed activities at the Millstone station. As a result, NRR has established a Millstone Employee Concerns/Allegations Independent Review Group (IRG). The objective of the IRG effort is to critically evaluate both the licensee's and NRC staff's effectiveness in addressing Millstone-related employee concerns and allegations during the period from 1985 to the present. This evaluation should determine root causes and common patterns for identified deficiencies and develop recommendations for licensee actions to improve the handling of employee concerns at Millstone and for NRC actions related to the handling of allegations.]

2.0 REVIEW GROUP STAFFING

The Review Group is composed of personnel from the Office of Nuclear Reactor Regulation and Region IV. To ensure an objective evaluation, the assigned personnel have not been closely associated with the Millstone facility or any of the prior evaluations of this problem. Each person brings a required area of expertise to the Group.

Herbert M. Berkow, NRR - Review Group Leader
Mohan C. Thadani, NRR
Carl A. Mohrwinkel, NRR
Richard M. Pelton, NRR
Forrest R. Huey, Region IV
Edward T. Baker, NRR (Adviser)

3.0 WORK PLAN AND METHODOLOGY

Previous evaluations of this problem have been program and process-oriented. The focus of this effort is to perform in-depth case studies of selected employee concerns and allegations from a historical perspective to achieve the objective.

3.1 Task 1 - Background Studies and Sample Selection

- a. Conduct a broad-based screening and review of available relevant documentation and records, including prior NRC studies and inspections of the licensee's employee concerns programs, licensee improvement programs and enforcement actions.
- b. Develop historical allegations background data as a function of time including: number of allegations raised; overlay of "events" to determine any tie to the numbers; numbers substantiated, safety significant, involving discrimination, involving enforcement action; numbers referred to OI, OIG, DOL; numbers referred to licensee,

ATTACHMENT 2

processed by region, processed by headquarters; average time to closeout vs. how processed; resources expended by region and headquarters in processing allegations.

- c. Based upon a. and b., select a representative sample of 6-12 employee concerns and allegations for in-depth case study evaluation. The selected sample will include safety-significant technical concerns; H, I and D issues; cases where the alleged raised multiple concerns and where the alleged raised only a single or few concerns; cases from various times within the 10-year period of interest.

3.2 Task 2 - Case Characterization

Use available documentation and records including: inspection reports, licensee evaluation reports, prior staff studies and evaluations, OI and OIG investigation reports, ARB records, DOL findings, OE records, 2.206 decisions, licensee and licensee contractor reports, to develop a comprehensive characterization of each selected case. Supplement the written record with structured interviews of cognizant NRC staff, licensee management and concerned employees as necessary to develop a complete and accurate characterization of each selected case. The case characterization will include the following information in a format that facilitates evaluation and cross-comparisons of the characteristics among all the cases.

- a. nature and genesis of concern/allegation (including H, I & D aspects)
- b. identification of concerned employee (if known) and employee's Millstone or NU employment history
- c. concerned employee's position and organization (if known) when concern was raised
- d. date employee first raised concern
- e. how the concern was raised
- f. detailed chronology of licensee's handling of concern
- g. nature and timing of NRC staff involvement and oversight of licensee's activities with respect to concern
- h. when and how concern was brought to NRC
- i. detailed chronology of NRC's handling of the allegation
- j. details of any OI, OIG, DOL, OE involvement
- k. findings, resolutions, licensee actions, NRC actions and current status, if still open

1. other factors that may be identified during review

All Review Group members will be knowledgeable of all the selected cases and each member will focus his area of expertise on each case, however, each of the 4 full-time members will be assigned lead responsibility for coordinating the evaluation and documentation of 2 or 3 cases.

3.3 Task 3 - Evaluation of Case Characterizations

The Review Group members will jointly evaluate the information developed in Task 2 to:

- a. identify root causes and common patterns of initial employee concerns
- b. critique the effectiveness of the licensee's employee concerns program, as it existed at the time, and licensee's supervision and management in handling and processing concerns
- c. critique the effectiveness of NRC staff oversight of the licensee's program and management of concerns
- d. identify root causes and common patterns of initial employee concerns becoming allegations
- e. critique the effectiveness of the NRC staff in handling and processing allegations
- f. develop overall lessons learned and corresponding action recommendations

4.0 REVIEW GROUP REPORT

Prepare and provide a report of the Review Group findings and recommendations to the EDO.

5.0 REVIEW GROUP SCHEDULE

<u>Activity</u>	<u>Date</u>
Review Group Tasking Memo Issued	12/12/95 (C)
Task 1 Background Studies and Case Sample Selection	12/12/95-1/31/96
Review Group Kickoff Meeting	12/18/95 (C)
Finalize and Issue Detailed Work Plan	12/20/95 (C)

Task 2 Case Characterization	1/22-3/15/96
 Indepth Review of NRC and Licensee Files	1/22-3/8/96
 Interviews of Cognizant NRC Staff, Licensee Management and Concerned Employees/Allegers	2/19-3/15/96
Interim Progress Briefing to EDO	1/31/96
Task 3 Evaluation of Case Characterizations	3/4-4/5/96
Preparation of Review Group Final Report	4/1-30/96
Issue Final Report to EDO	4/30/96

Millstone Allegations and Employee Concerns Review

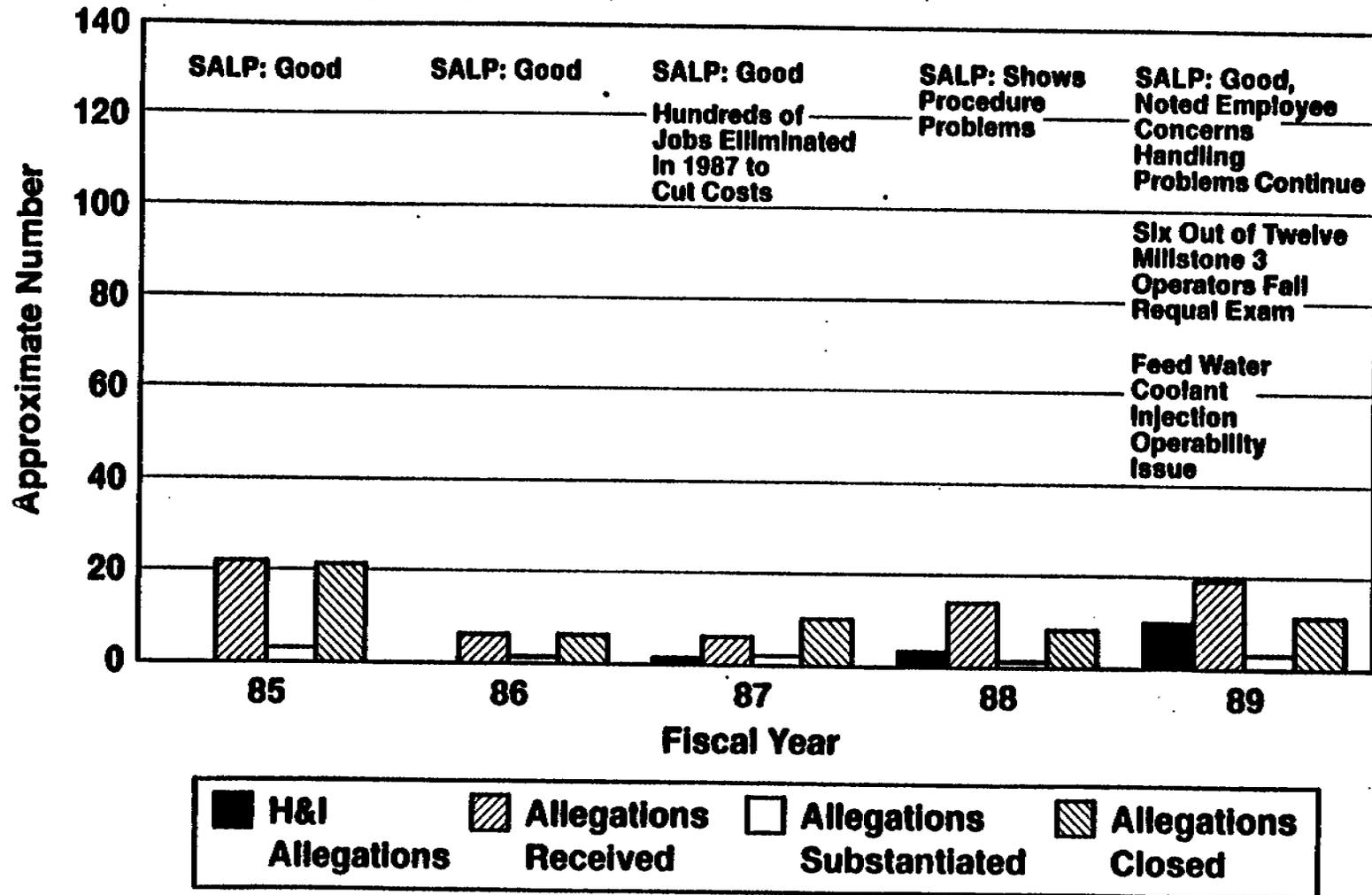


FIGURE 1

Millstone Allegations and Employee Concerns Review (Cont.)

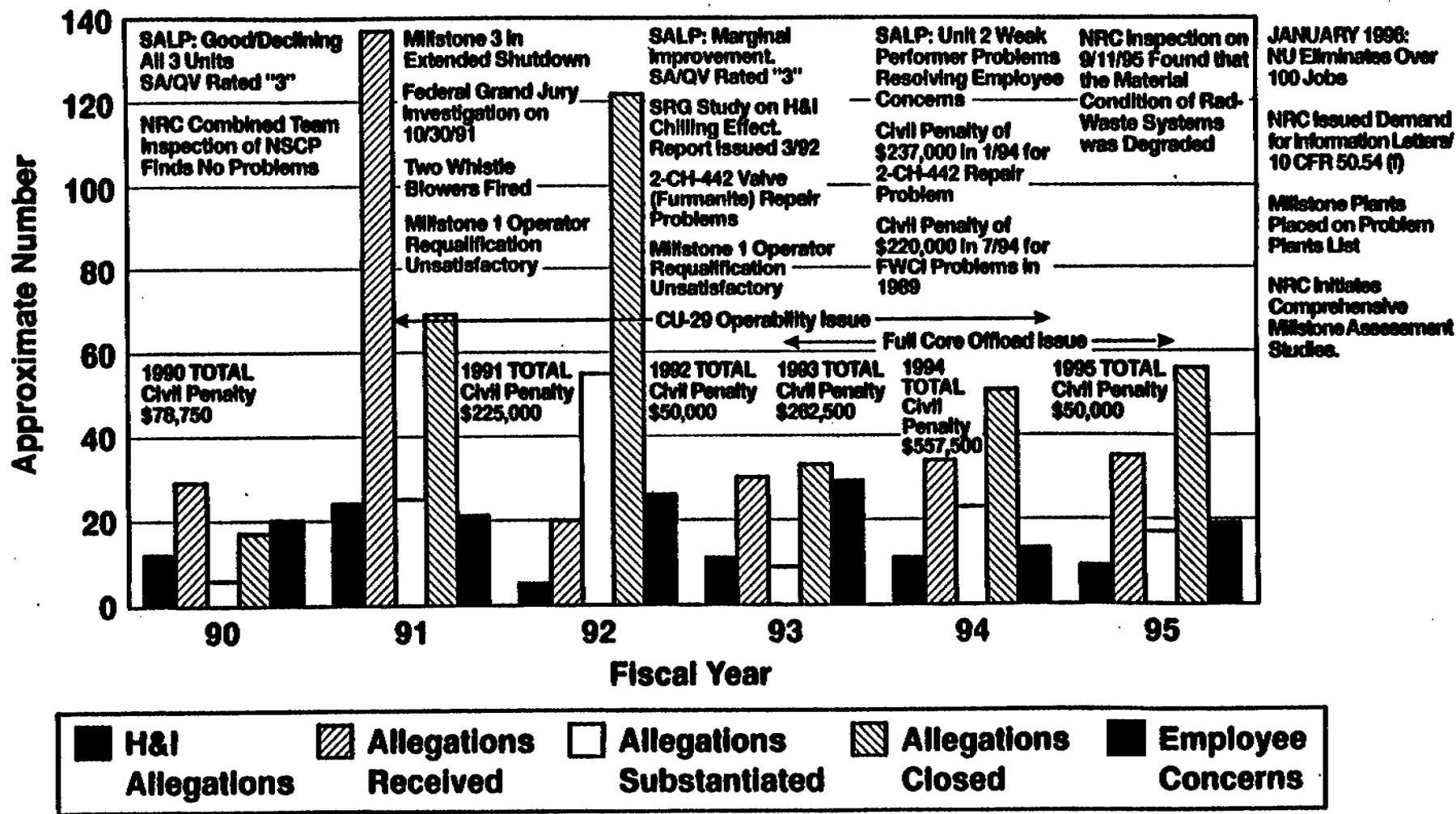


FIGURE 1 (CONT.)

MILLSTONE ALLEGATIONS/EMPLOYEE CONCERNS STUDY

NUMBER OF ALLEGATIONS RECEIVED FOR OPERATING REACTOR SITES DURING THE PERIOD
FROM JANUARY 1985 TO JANUARY 1996

<u>SITE</u>	<u>TOTAL NO. OF ALLEGATIONS</u>	<u>ALLEGATIONS INVOLVING H&I (SECTION 211)</u>
Arkansas	70	9
Beaver Valley	63	8
Bellefonte	145	4
Big Rock Point	17	2
Braidwood	98	11
Browns Ferry	201	34
Brunswick	96	14
Byron	78	7
Callaway	30	3
Calvert Cliffs	68	18
Catawba	22	1
Clinton	206	10
Lomanche Peak	275	31
Cook	61	10
Cooper	61	6
Crystal River	64	16
Davis Besse	99	14
Diablo Canyon	128	10
Dresden	77	9
Duane Arnold	31	8
Farley	22	1
Fermi	132	22
FitzPatrick	34	2
Fort Calhoun	73	11
Ginna	18	--
Grand Gulf	38	4
Haddam Neck	36	8
Harris	74	2
Hatch	71	3
Hope Creek	52	9
Indian Point	132	19
Kewaunee	10	--
LaSalle	69	8
Limerick	93	8
Maine Yankee	41	3
McGuire	28	5
Millstone	424	92
Monticello	17	2
Nine Mile Point	114	13

TABLE 1

<u>SITE</u>	<u>TOTAL NO. OF ALLEGATIONS</u>	<u>ALLEGATIONS INVOLVING H&I (SECTION 311)</u>
North Anna	50	6
Oconee	17	3
Oyster Creek	50	4
Palisades	51	4
Palo Verde	329	98
Peach Bottom	88	8
Perry	98	7
Pilgrim	148	7
Point Beach	13	2
Prairie Island	29	3
Quad Cities	51	5
Rancho Seco	50	3
River Bend	161	27
Robinson	25	3
Salem	87	17
San Onofre	168	20
Seabrook	73	3
Sequoyah	290	61
South Texas	215	49
St. Lucie	60	4
Summer	22	1
Surry	59	6
Susquehanna	80	7
Three Mile Island	45	6
Trojan	61	10
Turkey Point	111	13
Vermont Yankee	47	8
Vogtle	190	17
Washington Nuclear	57	10
Waterford	58	10
Watts Bar	529	151
Wolf Creek	78	5
Yankee Rowe	21	--
Zion	98	12