MILLSTONE INDEPENDENT REVIEW GROUP

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

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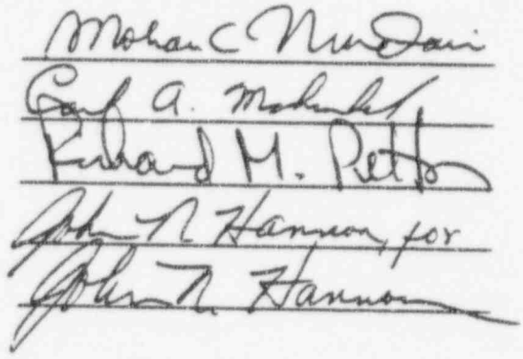

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EXECUTIVE SUMMARY

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 alleger 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.

TABLE OF CONTENTS

		Page
Executive Summary		i
1.0	Purpose of the Millstone Independent Review Group	1
2.0	Review Methodology	1
3.0	Composition of Team	3
4.0	Background	3
	4.1 The Current Employee Concerns/Allegation Process	3
	4.1.1 NRC's Allegation Process	3
	4.1.2 Harassment, Intimidation, or Discrimination	5
	4.1.3 Identity Protection	6
	4.2 Overview of Millstone Allegations and Employee Concerns	7
	4.2.1 Historical Perspective Since 1985	7
5.0	Case Selection	9
	5.1 Identity Protection	10
	5.1.1 Concernee A	10
	5.1.2 Concernee B	10
	5.1.3 Concernee C	11
	5.1.4 Concernee D	15
	5.1.5 Concernee E	16
	5.1.6 Concernee F	18
	5.1.7 Concernee G	18
	5.1.8 Concernee H	20
	5.1.9 Concernee I	21
6.0	Summary	22

7.0 Root Causes for NU Problems 23

7.1 Problem Resolution and Performance Measures 23

7.2 Sensitivity to Employee Needs 25

7.3 Reluctance to Admit Mistakes 26

7.4 Management Style and Support for Concerned Employees 27

7.5 Communications and Teamwork 28

7.6 Management Accountability 29

7.7 Nuclear Safety Concerns Program (NSCP) Implementation . . . 30

8.0 NRC Process Issues 30

8.1 Staff Sensitivity and Responsiveness 30

8.2 Discrimination Follow-up 32

8.3 Enforcement 33

8.4 Inspection Techniques and Performance Measures 34

8.5 DOL/NRC Interface 34

8.6 Allegation Program Implementation 35

9.0 Appendices

9.1 Millstone Independent Review Group Charter

9.2 Millstone Employee Concerns/Allegations Independent Review Group Work Plan and Schedule

10.0 Figures and Tables

10.1 Figure 1

10.2 Table 1

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 allegers (one in two parts)
- notes from one alleger interview that was not transcribed
- a letter from one alleger 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 alleger 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 Commissions'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 alleger. 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.

5.1.2 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 alleger needs and inadequate response to their concerns. Examples included inadvertent compromise of alleger identity, inappropriate priority for OI investigations, inadequate independent verification of licensee responses to referred allegations, and untimely or incomplete response to alleger 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 alleger 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 alleger-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 alleger-identified problems. Furthermore, the team noted a perception among some allegers 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 alleger, 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 allegers 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 allegers 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

9512190427

APPENDIX 9.2

NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001
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 N. 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: W T Russell
William T. Russell

9512280048

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 N. 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,

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 alleger raised multiple concerns and where the alleger 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

l. 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

Activity	Date
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

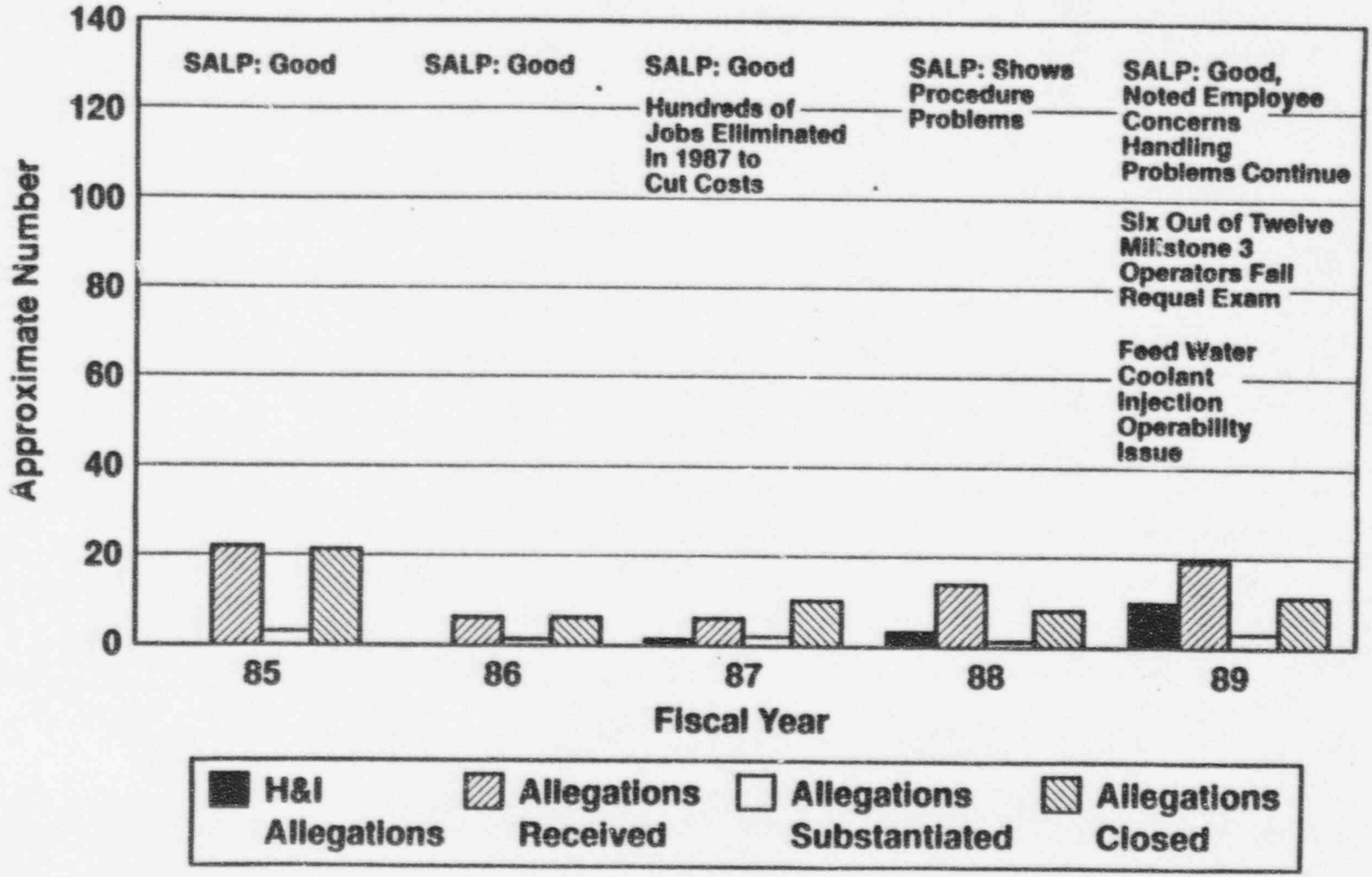

FIGURE 1

Millstone Allegations and Employee Concerns Review (Cont.)

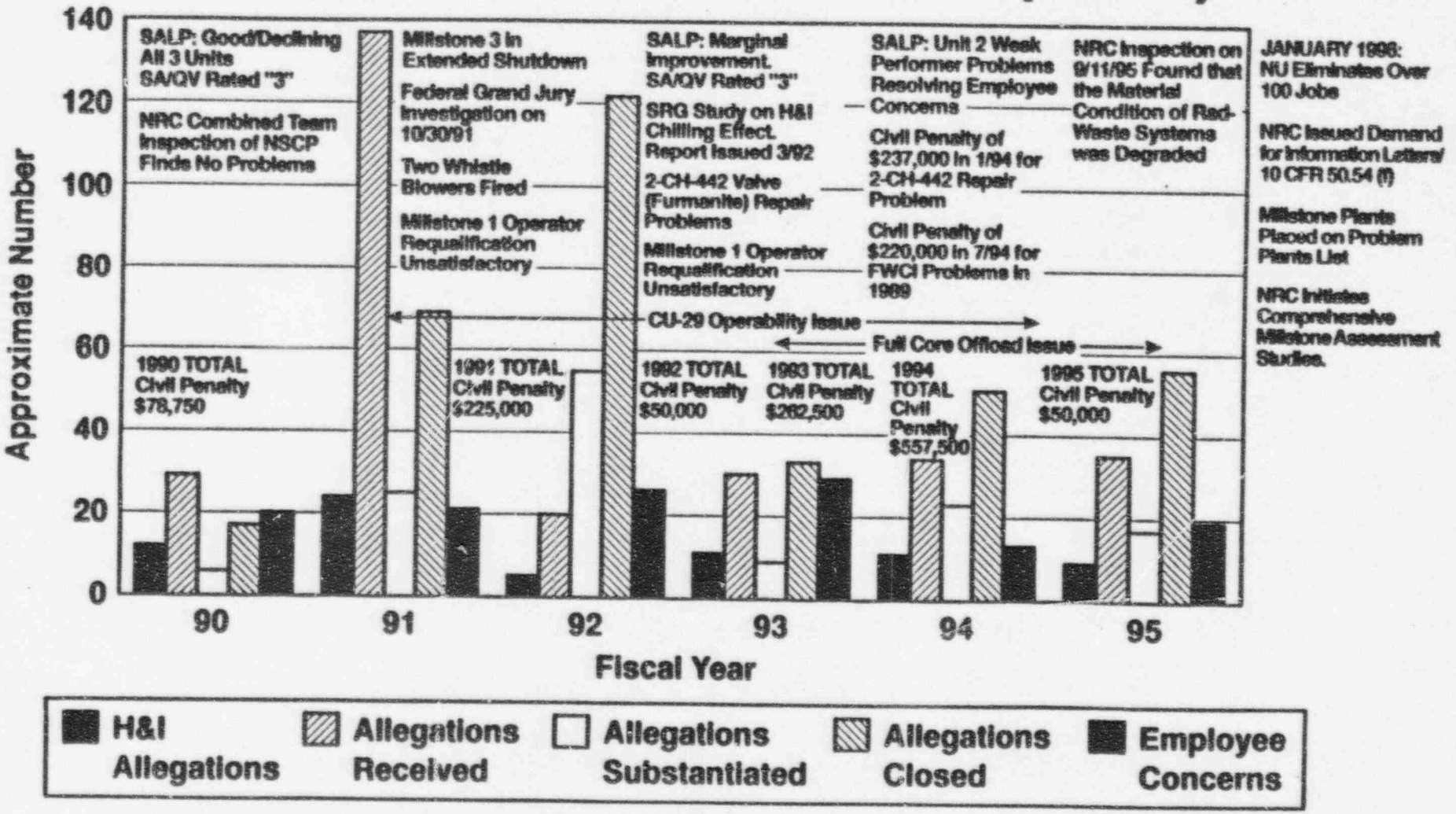

FIGURE 1 (CONT.)

MILLSTONE ALLEGATIONS/EMPLOYEE CONCERNS STUDY

NUMBER OF ALLEGATIONS RECEIVED FOR OPERATING REACTOR SITES DURING THE PERIOD

FROM JANUARY 1985 TO JANUARY 1996

SITE	TOTAL NO. OF ALLEGATIONS	ALLEGATIONS INVOLVING H&I (SECTION 211)
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
Comanche 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

SITE	TOTAL NO. OF ALLEGATIONS	ALLEGATIONS INVOLVING H&I (SECTION 311)
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