MILLSTONE UNIT 3

OPERATIONAL READINESS PLAN

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1.0 INTRODUCTION

1.1 Purpose

A clear understanding of the causes leading to the decline of Millstone's performance has been achieved through the use of various investigation and root cause techniques. Improved performance must be demonstrated to the public, regulatory agencies, and the employees to ensure Unit 3 can be safely returned to power operation. Millstone management has developed the Unit 3 Operational Readiness Plan (ORP) to identify and control the actions necessary to achieve and maintain improved performance. Incorporated into the ORP are the topics previously contained in the Millstone Improving Station Performance (ISP) Plan and selected elements of the Nuclear Excellence Plan (NEP). Once Millstone management determines plant readiness for restart has been achieved, a request will be submitted to the NRC for approval to return to power operation.

1.2 Background

Millstone Nuclear Power Station was designated as a Watchlist Category 2 facility by the NRC on January 29, 1996. On March 7, 1996, Unit 3 received a letter from the NRC requesting the unit provide, within 30 days, the actions taken, or planned to be taken, to address the conclusions of ACR 7007 as they pertain to Unit 3.

During the month of March, Unit 3 was the focus of a special NRC inspection of engineering and licensing activities. On March 31, 1996, Unit 3 shutdown when a deficiency that would have prevented the Auxiliary Feedwater containment isolation valves from performing their safety function was identified. On April 4th, 1996, as a result of the findings of the Special Inspection, the NRC forwarded Unit 3 a 10 CFR 50.54(f) request for information, requiring Northeast Utilities describe those actions taken to ensure that future operations at Millstone Unit 3 will be conducted in accordance with terms and conditions of the Millstone Unit 3 operating license. This letter was subsequently superseded by the NRC 10 CFR 50.54(f) request for information dated April 16, 1997.

On June 21, 1996, the NRC forwarded a letter confirming Millstone's continued status as a Watchlist Category 2 facility. On June 28, 1996, Millstone was designated by the NRC as a Watchlist Category 3 facility. In a letter dated August 14, 1996, the NRC issued an order requiring the establishment of an Independent Corrective Action Verification Program (ICAVP). A second confirmatory order was issued by the NRC in a letter dated October 24, 1996, which required the establishment of a comprehensive plan to address the handling of employee concerns by an independent third party. A Confirmatory Action Letter was issued by the NRC in a letter dated March 7, 1997, confirming our ongoing efforts and commitments to evaluate and correct problems found within the licensed operator training programs at Millstone.

1.3 Nuclear Regulatory Commission (NRC) Restart Process

Prior to NRC approval to restart, the following regulatory items must be addressed and satisfactorily completed (Unit 3 actions required by these regulatory items are included in the ORP):

- Manual Chapter 0350 Process / Operational Safety Team Inspection (OSTI)
- Section 50.54(f) Activities
- NRC Significant Items List

- Independent Corrective Action Verification Program Order
- Employee Concerns Third Party Oversight Order
- Confirmatory Action Letter - Operator Training
- Commission Vote

Additional detail is provided in Attachment I

1.4 Roles and Responsibilities

The successful implementation of the Unit 3 ORP requires a consolidated team effort. The following is a list of roles and responsibilities of the key team members

Vice President - Operations/Unit 3 Recovery Officer - Responsible for providing the overall strategy for restart and establishing performance expectations

Vice President Nuclear Oversight - Responsible for advising the Unit 3 Vice-President as to the readiness of Unit 3 for restart.

Unit 3 Management - Implement action plans and corrective actions to support restart readiness.

Unit 3 Employees - Support the implementation of the ORP by focusing on plant safety and continuous improvement. Key to this responsibility is the obligation to raise any and all identified quality and safety concerns to management's attention for resolution

Management Review Committee (MRC) - The MRC is an ad hoc management oversight board charged with reviewing organizational readiness of line and selected support organizations. The MRC shall be made up of members of the Unit 3 management team as assigned by the Unit Vice-President. Challenge meetings will be scheduled as required to review department's readiness to support safe operation, and review action plans for areas determined to need improvement. The committee performs a management oversight function, and, therefore, does not fall under the purview of 10 CFR 50, Appendix B.

2.0 PERFORMANCE ASSESSMENT & RECOVERY

2.1 Background

The causes for the performance decline at Millstone have been assessed and documented in various Millstone root cause analyses, such as ACR 7007, CR M3-97-1839, the Fundamental Cause Assessment Team report, the Joint Utility Management Association report and several NRC Inspection Reports. The issues can be summarized as follows:

- Senior executives at Northeast Utilities (NU), from the CEO to senior nuclear site executives, were ineffective over a number of years in providing vision, direction, and leadership necessary for the management of the NU nuclear power program.

- Senior management failed to provide the nuclear organization with clear direction and oversight in several key areas including, performance standards, station priorities, and management expectations. The message that safety was a higher priority than cost effectiveness was not consistently understood by the workforce.

- Many of the more important initiatives and activities intended to address identified issues, such as employee concerns, design bases, configuration control, and correction of backlog, did not receive consistent and clear management direction and support, nor did they have adequate owner accountability.

- Key performance weaknesses, such as an effective corrective action program, licensed operator qualification standards, and critical self evaluation processes, were not addressed in a prompt comprehensive and lasting fashion.

- Senior management did not ensure effective communication throughout the nuclear organization. They did not recognize the existence of the horizontal and vertical barriers to two way exchange of information and the resulting loss of trust and confidence in management at the Millstone sites. Further, top management discouraged information that contradicted their understanding of the nuclear organization.

- Top management did not establish a cooperative and supportive team atmosphere among groups competing for resources and recognition. This was particularly true of the Operations and Engineering organizations where an appreciation of each others role and importance to plant safety was lacking.

Collectively, this resulted in a loss of trust and credibility of management with employees, regulators, and the general public. To restore trust, standards must be raised and a strong and healthy nuclear safety environment must be maintained. However, ineffective leadership led to a breakdown in areas that are critical to maintaining high performance standards. These issues were identified from the principal recurring causal factors contained in several critical assessments of Millstone performance and NRC inspection reports. It is the weakness in these key areas that has resulted in the numerous technical and process deficiencies that have been identified to date. It is understood that until these key areas are functioning effectively, reasonable assurance cannot be given that significant technical and process deficiencies will not recur in the future.

The key issues which must be satisfactorily addressed prior to restart include:

- Leadership
- Safety-Conscious Work Environment
- Self Assessment
- Corrective Action
- Nuclear Safety Assessment Board (NSAB)/Oversight
- Configuration Management
- Regulatory Compliance
- Conduct of Safe Operations - Training
- Conduct of Safe Operations - Operator Readiness
- Work Control and Planning
- Procedure Quality and Adherence
- Programs Which Protect Health and Safety (including Emergency Preparedness, Fire Protection. Radiological Protection, Security, and Environmental).

2.2 Recovery Strategy

To address the root cause of ineffective leadership, new leadership has been appointed. This leadership team includes highly-experienced managers with proven records of good performance at other nuclear utilities. In addition, supervisor-and-above leadership development has been undertaken in order to raise standards and promote teamwork.

Executive Sponsors and Issue Managers have been named for each of the key issues. Under the Executive Sponsor's guidance and continuing support, the Issue Manager has complete authority to address the issue from a site-wide perspective. Specifically, the Executive Sponsors and Issue Managers have the responsibility to:

- Establish ownership and accountability
- Set clear standards and expectations
- Implement effective Corrective Actions
- Monitor performance progress

The current status of each of these issues is provided in the NRC Commissioner's Briefing Book.

The purpose of this Operational Readiness Plan is to provide a plan for assessing restart readiness from a Unit perspective. This will include assessing department and Unit performance in those key issues which lend themselves to measurement on a Unit basis. This ORP is also based heavily on the performance attributes called out in Manual Chapter 0350, the Operational Safety Team Inspection (OSTI) Inspection Procedure, and INPO 96-006, "Performance Objectives and Criteria for Operating Nuclear Electric Generating Stations."

3.0 Restart Issue Management

Millstone 3 is controlling its work items to ensure that all items are completed which:

- Support Nuclear Safety,
- Establish and maintain the Licensing and Design Basis,
- Implement an effective Employee Concerns Program, and
- Maintain safe and reliable operations.

The unit's specific process is, in general, represented by the generic discussion which follows.

Work items originate from various documents, depending on which program the work item came from. The major documents that generate work or represent work items are the Unresolved Item Report (UIR), Open Item Report (OIR), the Condition Report (CR), the Non-Conformance Report (NCR), the Automated Work Order (AWO), the Engineering Work Request (EWR), Operator Work Arounds (OWA), Control Room Deficiency (CRD), and Temporary Modifications (TM). Other documents exist, however, they are generally daughter documents generated to resolve an issue identified by one of the higher level documents previously mentioned. In addition, these documents can be linked to each other. For example, a CR may generate an EWR.

As items are identified through UIRs, OIRs, CRs, NCRs, AWOs, EWRs, OWAs, CRDs, and TMs, the associated activities are screened to determine if they should be completed prior to startup. Figure 1 depicts the general process. If an item is an AWO, it is reviewed to distinguish between work that should be considered for the current outage and work that is scheduled for the future. An example would be preventive maintenance. There are many AWOs that exist for future scheduled preventive maintenance that do not represent deferred work.

All other AWOs and all UIRs, OIRs, CRs, NCRs, EWRs, OWAs, CRDs, and TMs are then reviewed for priority. Work identified for completion prior to restart includes:

1. Any item that supports or implements a Technical Specification change that is required for startup,

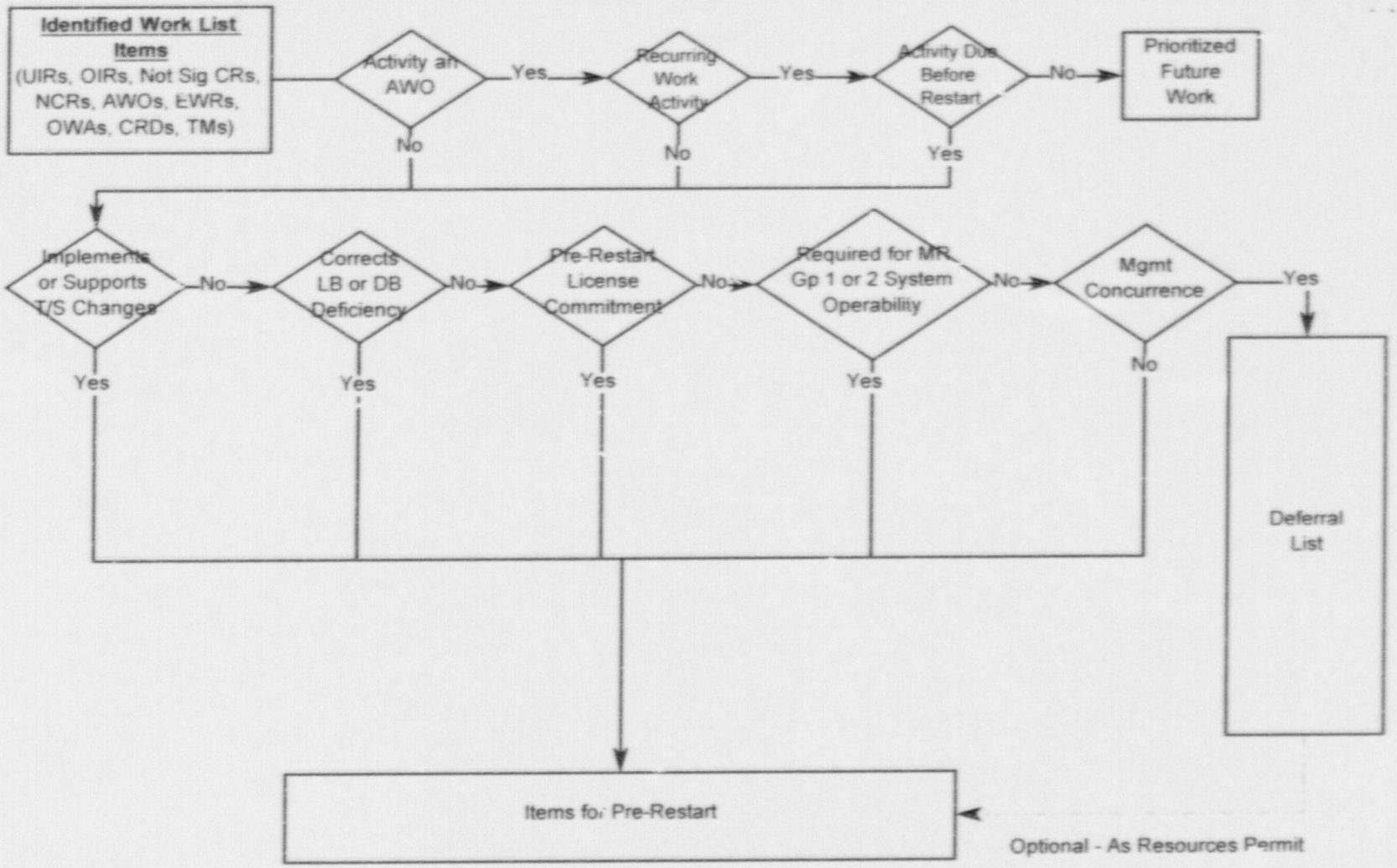
2. Any item that corrects or resolves a Licensing Basis or Design Basis deficiency. This includes FSAR discrepancies (not including enhancements and editorial clarifications) identified prior to the end of discovery on 8/13/97, and any FSAR change approved prior to 11/15/97,

3. Any item that involves a commitment to the NRC for completion of specified activities prior to restart, and

4. Any item that is required for a Maintenance Rule (10 CFR 50.65) group 1 or 2 system to be operable or to perform its design basis function. It is recognized that certain discrepancies may exist on Maintenance Rule group 1 or 2 systems that do not impact operability and may be considered for deferral, subject to available materials and resources.

If an item is selected for deferral, it is reviewed by management to ensure the deferral is appropriate. Management may either concur with the deferral, or direct the item to the restart worklist.

Figure 1
Millstone Station Non-Significant Item Worklist Screening Schematic



4.0 RESTART ELEMENTS

There are five major elements of restart readiness. Organization, System, Operational, Regulatory and Communications. This section describes the initiatives necessary for each element to demonstrate restart readiness and establish a foundation for long term sustained improvement.

ORP Sections 4.1 through 4.4 identify the specific performance indicators designed to measure restart readiness. The performance indicators are taken from the Millstone Unit 3 Performance Assessment Windows. The Unit 3 Performance Assessment Windows is a management tool which includes indicators relevant to both restart and operational performance. As a management tool, the performance windows will be revised as necessary to achieve current management goals and objectives. It is not intended to revise the ORP if the performance windows are adjusted.

Each indicator in the performance windows can assume one of five different states, as follows:

Red:	Falls short of expectations, acceptance criteria or goals are impacted.
Yellow:	Falls short of expectations, acceptance criteria or goals are not impacted.
White:	Meets expectations.
Green:	Exceeds expectations.
Blue:	Currently unassessed or under development.

The specific success criteria for each relevant indicator is described in sections 4.1 through 4.4. The performance windows are periodically assessed and updated.

4.1 Organization Readiness

4.1.1 Management Oversight and Effectiveness

Objective:
The objective of management is to establish organizational culture and values. At the heart of Unit 3 culture is a consideration for Nuclear Safety and a profound respect for the nuclear core. Supporting nuclear safety is an organizational focus on raising standards, completing effective corrective actions, establishing accountability, and fostering a spirit of continuous improvement.

Success Criteria:
The following Management Oversight and Effectiveness performance windows must be evaluated as either green, or yellow with a Corrective Action plan in place and sustained improvement being made:

- Standards and Expectations Communicated to the Staff
- Commitment to Achieving Improved Performance
- Nuclear Safety
- Understanding of Plant Issues and Corrective Actions
- Effectiveness of Management Review Committees
- ALARA
- Procedure Compliance

4.1.2 Human Performance

Objective:
Adequate performance of individuals within the framework of a functional organization is essential to meeting organizational goals of safe and reliable operation. Essential elements contributing to acceptable human performance include:

- Demonstrated safety consciousness
- An understanding of management expectations
- Adequate staff qualification and training

Success Criteria:
The following performance windows must be evaluated as either green, or yellow with a Corrective Action plan in place and sustained improvement being made:

- Training/Qualification (Operations, Mechanical Maintenance, I&E, Maintenance Planning, and Engineering)
- Staff Levels Adequate (Operations)
- Human Performance (Operations, Mechanical Maintenance, I&E, Maintenance Planning, and Management Oversight and Effectiveness)
- Industrial Safety (Management Oversight and Effectiveness)
- Events (Operations)

4.1.3 Corrective Action/Self Assessment Program Implementation

Objective:
An effective corrective action program is necessary to identify, correct, and prevent recurrence of identified problems. In the identification phase, a low threshold must be maintained to get all potential discrepancies into the corrective action program. Appropriate immediate corrective actions must be implemented and reportability must be determined in a timely manner. If necessary, root cause assessment will be conducted. Additionally, periodic management reports and trends are generated to ensure continuous improvement and prevent recurrence of events.

Success Criteria:
The following Corrective Action performance windows must be evaluated as either green, or yellow with a Corrective Action plan in place and sustained improvement being made:

- Initial CR Screening
- AITTS CAD Management
- Overdue Assignments
- OE Effectiveness
- Conduct of CAD CRs/ACRs
- Conduct of CAD - Self-Assessment
- Root Cause Quality
- Effectiveness of MRT
- Trending Effectiveness
- CR Close-Out Timeliness

4.1.4 Work Management Program

Objective:
An effective work management program is necessary to ensure that activities are planned, controlled, and completed in a timely manner. Inherent in this goal is a prioritized and managed backlog, quality work packages, efficient scheduling, and an awareness of the safety impacts associated with equipment outages.

Success Criteria:
The following performance windows must be evaluated as either green, or yellow with a Corrective Action plan in place and sustained improvement being made:

Work Control & Outage Management
- Surveillances
- Schedule Adherence
- Conduct of Work Planning

Maintenance:
- Conduct of Maintenance (Mechanical and I&E)
- Work Package Quality
- Overall Effectiveness of Plant Maintenance Program (Mechanical and I&E)
- Maintenance Backlog Management
- Average Age of Backlog AWOs
- Post Maintenance Testing
- Preventive Maintenance Program

4.1.5 Procedures Program

Objective:
Procedure compliance and quality are fundamental to safe nuclear operations. This includes compliance with controlled procedures that have been properly verified as current and correct.

Success Criteria:
The following performance windows must be evaluated as either green, or yellow with a Corrective Action plan in place and sustained improvement being made:

- Procedure Compliance (Management Oversight & Effectiveness, Maintenance, and Operations)
- Procedure Quality (Operations)
- Technical Adequacy of Procedures (Mechanical Maintenance and I&E)
- Document Control/Availability (Operations)
- Procedures/Document Control (Maintenance)

4.1.6 Training

Objective:
Training programs utilizing the systematic approach to Training must be in place and functioning to ensure adequately trained Operations, Maintenance, and Engineering staff is available to support restart.

Success Criteria.
The following Training performance windows must be evaluated as either green, or yellow with a Corrective Action plan in place and sustained improvement being made:

- Simulator Fidelity
- Management Support of Training
- Licensed Operator Continuing Training
- Non-Licensed Operator Training
- STA

4.1.7 Environmental

Objective:
An effective environmental management program is necessary to ensure that discharges from the plant are performed in compliance with environmental regulations.

Success Criteria:
The following Chemistry performance window shall be evaluated as either green, or yellow with a Corrective Action plan in place and sustained improvement being made:

- NPDES Performance

4.2 System Readiness

4.2.1 Configuration Management

Objective:
One of the key underpinnings supporting nuclear safety is the assumption that the plant design basis and licensing basis are accurately reflected in the physical plant construction and associated operating, maintenance, and test procedures. Unit 3 has undertaken a Configuration Management Plan to verify the integrity of the design and licensing basis and verify it is properly translated into the physical plant.

Success Criteria.
The following Engineering performance window must be evaluated as either green, or yellow with a Corrective Action plan in place and sustained improvement being made:

- Configuration Management

4.2.2 Design Control

Objective:
Once the design and licensing basis has been verified, they must be maintained. Thus, controls are required to ensure proper configuration management on a going forward basis.

Success Criteria:
The following Engineering performance windows must be evaluated as either green, or yellow with a Corrective Action plan in place and sustained improvement being made:

- Design Quality
- NCRs
- Temporary Modifications
- Effectiveness of PRA Usage

4.2.3 10 CFR 50.59 Process

Objective:
10 CFR 50.59 safety evaluations must be complete and comprehensive to support safe operation and appropriate operability determinations.

Success Criteria:
The following Engineering performance window must be evaluated as either green, or yellow with a Corrective Action plan in place and sustained improvement being made:

- 10CFR50.59 Safety Evaluations

4.2.4 Engineering Skills Enhancement

Objective:
Engineering is a key support organization and serves as an essential partner in ensuring that other organizations understand the plant's design basis. Engineering must be technically proficient to support the safe and efficient operation and maintenance of the plant.

Success Criteria:
The following Engineering performance window must be evaluated as either green, or yellow with a Corrective Action plan in place and sustained improvement being made:

- Conduct of Engineering

4.2.5 Physical Plant Work

Objective:
Required modifications, corrective maintenance, preventive maintenance, and associated testing is complete or scheduled for required plant mode.

Success Criteria:
The Maintenance and WC&OM departments report restart requ[illegible] work is complete.

4.2.6 System Operability

Objective:
All systems required for restart and plant operation are operable or awaiting scheduled testing at required plant mode. Balance of plant systems and necessary support systems are also operable.

Success Criteria:
The following performance windows must be evaluated as either green, or yellow with a Corrective Action plan in place and sustained improvement being made:

Engineering:
- System Readiness
- Results of System Testing

Operations:
- Operability of Tech Spec Systems
- Operability of Required Secondary and Support Systems
- Operator Burdens
- Adequacy of System Line-ups
- Post Maintenance Testing
- Black Board (Alarms)

4.2.7 Testing Program

Objective:
Surveillance testing must be technically accurate and complete to support operability of associated systems. Additionally, a power ascension test program, including required startup testing, must be developed and approved.

Success Criteria:
The following performance windows must be evaluated as either green, or yellow with a Corrective Action plan in place and sustained improvement being made:

Engineering:
- Adequacy of Power Ascension Testing
- Surveillance Testing

Operations:
- Surveillance Tests
- Adequacy of Power Ascension Procedures
- Procedure Quality - Surveillances

I&E and Mechanical Maintenance:
- M&TE:
- Technical Adequacy off Procedures

4.2.8 Plant Materiel Condition

Objective:
Proper plant housekeeping is indicative of the overall staff attitude toward plant operation. This includes not only maintaining work areas neat and clean, but also encompasses proper chemical storage, proper chemical labeling, appropriate leak collection, and control of contaminated surface areas.

Success Criteria:
The following performance windows must be evaluated as either green, or yellow with a Corrective Action plan in place and sustained improvement being made:

- Housekeeping (Management Oversight & Effectiveness and Mechanical Maintenance)
- Control of Consumable Chemicals (Chemistry)

4.3 Operational Readiness

Objective:
Operational activities must be conducted in a manner that ensures safe, conservative, and reliable operations. Nuclear Safety and a profound respect for the core must be foremost in operational decisions. Operations personnel are to be cognizant of the status of plant systems and comply with all applicable regulations and the Technical Specifications.

Success Criteria:
The following Operations performance windows must be evaluated as either green, or yellow with a Corrective Action plan in place and sustained improvement being made:

- Staff Levels Adequate
- Worker Practices
- Required Reading
- Awareness of Plant Security
- Work Observations
- Awareness of Plant Status

4.4 Regulatory Readiness

Objective:
An effective organization to address regulatory issues must exist. This includes adequate Technical Specifications that are both understandable and acceptable for plant operation. In addition, regulator commitments must be tracked and fulfilled.

Success Criteria:

1. The following performance windows must be evaluated as either green, or yellow with a Corrective Action plan in place and sustained improvement being made:

   - Tech Spec Improvement Plan (Licensing)
   - Commitment Management (Licensing)
   - Tech Specs (Operations)

2. The final 10CFR50.54(f) response for Unit 3 must be complete and submitted to the NRC.

3. The NRC Significant Items List (SIL) must be complete.

4. A summary root cause has been performed to umbrella ACR 7007, CR M3-97-1839, QAS Failure evaluation, FCAT fundamental cause evaluation, and JUMA. Corrective actions have been verified to be in place, and the results of this evaluation included in the final 10 CFR 50.54(f) response.

5. The Confirmatory Order for an Independent Corrective Action Verification Program is rescinded or modified.

6. The Confirmatory Order for an Independent Third Party Oversight Panel is rescinded or modified.

7. The Confirmatory Action Letter on Operator Training is complete.

8. 10 CFR 50.54(f) Significant Items for Restart are complete.

4.5 Communications Strategy

Face-to-face communication is the most effective way to disseminate information and accomplish the following objectives:

- Establish an atmosphere of trust and credibility among employees and management
- Keep employees fully informed of issues, developments, and management expectations in an honest and timely manner.
- Build enduring knowledge, support, and ownership responsibility for the readiness plan and its vision.

Following are additional elements of the communication strategy. A communications matrix which describes communications activities, their audiences, and suggested frequency, is also part of the plan.

4.5.1 What Should Be Communicated

The information communicated falls into many different categories:

- Management philosophies and messages.
- Progress and Celebration of successes by individuals and/or groups.
- Challenges that lie ahead.
- Industry and Unit-specific experience that should be communicated to all unit personnel, such as lessons learned.
- Management feedback on its plans and commitments.
- Other information that is useful, of interest, or of value from the standpoint of employee morale.
- Communication across working groups should be stressed and the emphasis should be continuous. Also, employees need to know that their comments/suggestions/constructive criticism will be presented to higher management in the form it was intended when given to line management so they feel upper management is getting an accurate input.

Three specific short-term communication strategies involve techniques used to boost employee morale and confidence, and provide progress:

- Celebration of successes at all levels. These can consist of letters of commendation, recognition in management meetings, celebration events, spot recognition awards, a written newsletter, and photo stories.
- Setting of several (3-5) short-term objectives that support longer-term goals.
- Unit Vice-President meeting with supervisors, managers, and directors to review status, goals, and future initiatives.

4.5.2 Unit-Wide Communications Approach

A communications matrix has been created which lays out the plan for communications, both interpersonal and written. The plan has been developed to ensure enough contact between upper management and other management levels and to provide management's philosophies and expectations from top to bottom.

A number of communications vehicles are available. Some are system-wide and can be used to disseminate unit-specific information to the rest of the units, as appropriate. The unit communications liaison will be responsible for coordinating unit input into the system-wide communications vehicles.

Other vehicles are unit-specific. They are:

- **Face-to-Face Meetings:**

  Face-to-face meetings are the preferred method for communicating information on the unit. Face-to-face includes not only interaction between employees and immediate management, but also interactions between employees and unit senior management. It should be made clear that written communications do not replace face-to-face communications.

- **All-hands meetings:**

  In many cases, face-to-face communication is more appropriate in large groups. There have been, and will be, occasions when it is appropriate to hold a unit all-hands meeting. This could be run by the unit recovery officer, the unit director, the unit engineering director, or others as applicable.

- **Department meetings:**

  Whenever appropriate, information from the morning unit meeting should be discussed in department meetings. As discussed above, employees want to get most of their information from their immediate management, and brief meetings are an important element.

- **Unit management letters and memos:**

  In many cases, timely information is best communicated by management. These come out on a regular, as-needed basis. The objective is to project the fact that management is keeping the work force informed and recognizing individual achievement.

- **Unit/Department Celebration/Motivational Events:** There will be times when an event, such as a rally or picnic, will be appropriate. These can be used to celebrate success, rally support for upcoming challenges, and convey a sense of teamwork.

- **Unit-specific print communications:** Examples include unit dailies, weekly reports, issue-specific picture stories, officer letters/memos, etc. Two important messages that are crucial in our communications are individual and group recognition and progress.

TEMPLATE FOR RECOVERY OFFICER/DIRECTORS
FACE-TO-FACE COMMUNICATIONS PLAN

ACTIVITY	EMPLOYEE AUDIENCE	RESPONSIBLE INDIVIDUAL	SUGGESTED FREQUENCY
Management Staff Meeting	Directors/Managers	Unit Officer	Daily
Unit Walkdown with Department Manager	Managers Employees	Unit Officer Unit Director	Monthly Weekly
Department All-Hands Meetings (Note: May include the entire department or just a major group in the department)	1st Line Supervisor & Non-Supervisory Personnel	Unit Officer Unit Director Unit Engineering Director	Monthly Weekly Weekly
Unit 3 Strategy Meeting	Unit Director Engineering Director Employee Communications	Unit Officer	Weekly
Simulator Observations	Licensed Operators	Unit Vice President Unit Director	Monthly Monthly
System Engineer Plant Walkdowns	System Engineers	Unit Engineering Director	Periodically
Operating Shift Turnover	Operating Shift	Unit Officer Unit Director	Monthly Monthly
Meetings with First Line Supervisor and above (The Management Team)	First Line Supervisors and above	Unit Officer	Quarterly
Meeting with Operations Shift Managers ***	Shift Managers	Unit Officer	Weekly
NRC	NRC Resident Inspector	Unit Officer Engineering Director	Weekly
NRC	NRC Region/HQ Management	Unit Officer	Monthly

** A quarterly meeting of the Unit Officer with all supervisors. With Unit progress, the frequency may be extended. Unit and Engineering Directors will meet with all of the first-line supervisors in one department (e.g., Maintenance) on a bi-weekly basis.

*** The Unit Director will meet with at least one Operations shift manager on a weekly basis, except when the unit conditions or being away from the unit preclude it.

FACE-TO-FACE COMMUNICATIONS PLAN (Cont.)

TEMPLATE
FACE-TO-FACE COMMUNICATIONS PLAN
For Department Managers

ACTIVITY	EMPLOYEE AUDIENCE	SUGGESTED FREQUENCY
Status Meetings	Management Team	Daily
Department All-Hands	All Department Employees	Bi-Weekly
Management Observation of Training	Employee Groups	Monthly/ Weekly for Licensed Ops Requal
Ops Manager Meeting	Ops Shift Managers	Weekly
Meeting with First Line Supervisors	First Line Supervisors	Bi-weekly
Customer/Corporate Support/Vendor		Periodic
Invite NU Nuclear senior management (above Director level) to speak to department	All Department Members	Periodic

5.0 OPERATIONAL READINESS ASSESSMENT

Unit readiness assessment is the process by which Unit 3 will determine its readiness to support safe and reliable startup and power operation. Satisfaction of the success criteria described in Section 4 ensures the Millstone Station success objectives, embodied below, are met:

Millstone Station Success Objectives

High standards and clear accountabilities

- Incorporate many best practices from other utilities
- Regularly benchmark with other nuclear utilities
- Indicator show strong improvement toward excellence
- Commitments are met

Strong nuclear safety policy

- Careful adherence to high nuclear safety standards
- Conservative decision making

Effective self-assessment

- Significant issues are identified by NU rather than the regulator

Effective Corrective Action process

- Corrective actions and commitments are prioritized and resolved in a timely manner
- Improved regulatory performance as demonstrated by decreases in NRC violations and LERs

Restored licensing and design bases with process to ensure that they are properly maintained

- ICAVP contractor confirms that the design and licensing bases have been restored
- Implemented effective configuration control processes

An environment that supports the identification and effective resolution of employee concerns

- Open and candid communications
- Timely resolution of employee safety concerns
- Independent review of employee safety concerns confirms effectiveness

Commitment to achieve excellence in nuclear operations

- Excellence has been defined, a plan to achieve has been developed and there is good demonstrated progress
- Issues important to startup have been resolved
- Resource commitments meet or exceed those of similar well run units

Restart readiness assessment shall consist of the following elements:

5.1 Line Assessments

Line and support department assessments of restart readiness, as described in Section 4 shall be performed periodically. Each Department Manager is responsible for determining their departments overall "Readiness for Restart", based on a comparison of the results of their assessment with the success criteria contained in Section 4. This qualitative assessment should consider the aggregate impact of restart items requiring improvement.

Completed department assessments shall be reviewed by the Management Review Committee. The MRC shall review:

(I) Criteria, to verify an adequate standard has been established for restart.
(ii) Assessment method, to verify the method used to assess performance against criteria is valid.
(iii) Assessment result, to verify the conclusion is justified in light of the criteria.
(iv) Corrective Actions plans to verify they are adequate to improve performance.
(v) The overall departments readiness for restart to verify the aggregate department performance is sufficient to support restart

The MRC shall provide a recommendation to the Unit Recovery Officer as to the readiness of the Unit to restart.

5.2 Nuclear Oversight

Nuclear Oversight shall perform an independent assessment of restart readiness through their Nuclear Oversight restart verification plan (NORVP).

5.3 Employee Review Committee

The Unit 3 Employee Review Committee shall provide a recommendation to the Unit 3 Recovery Officer on the units readiness for restart.

6.0 STARTUP AND POWER ASCENSION PROGRAM

6.1 Objective

The objective of the Startup and Power Ascension program is to ensure a safe, event-free restart of the unit. Startup from this extended shutdown will be complicated by the following factors:

(i) Systems have been out of service for an extended period of time
(ii) A large number of maintenance activities and modifications have been made
(iii) Plant operating crews have not operated at power for an extended period of time

The objectives of the Startup and Power Ascension program will be considered to be met when the unit has been restarted, and is running:

(i) Without significant events or challenges to safety systems
(ii) With a minimum of reportable events
(iii) Without lost time accidents

6.2 Testing Program

The Startup and Power Ascension program involves an integrated and systematic approach to establish the readiness of equipment in areas where corrective maintenance and modifications have been made during the shutdown. The test program is based on attributes of other successful startup and restart programs used in the nuclear industry.

Startup and power ascension testing consists of:

(i) component level testing
(ii) system level testing
(iii) integrated functional testing
(iv) power ascension testing

Where possible, existing surveillance procedures will be used to verify component and system operability following completion of maintenance and modification activities. Where existing procedures are not sufficient to verify component functionality, a Special Procedure (SPROC) and/or Inservice Test (IST) will be written. Tests and procedures will be written in accordance with applicable station administrative procedures. As required, SPROCs and ISTs are subject to a documented safety evaluation pursuant to 10 CFR 50.59.

With the plant in Cold Shutdown (Mode 5) a series of component and system level tests will be performed to verify the readiness of the plant to proceed to startup. As work is completed on components and systems, post-maintenance and post-modification testing will be performed to verify components and systems are capable of performing their safety function. As noted earlier, these tests may either be existing surveillance procedures, or unique procedures specifically geared to verifying system functionality following modification. Where the Configuration Management Program has raised questions as to a system's capability, special procedures may be run to verify the as-built system is capable of performing its safety function. Test results will be independently reviewed, as well as being reviewed by either the Management Review Committee or the Plant Operations Review Committee prior to proceeding with testing.

Following completion of this testing, a series of tests will be run to verify integrated system operations. These tests will primarily be existing integrated surveillance tests, including a Loss of Power Test on each safety related train, an integrated ESF with LOP Test, and a drawdown test of the Supplemental Leak Collection and Release System. These tests are intended to supplement post-maintenance and post-modification testing and verify that system interactions have not been unintentionally changed by modifications that have occurred during the outage. These test will also verify that the secondary containment boundary has been properly restored.

In addition to the Mode 5 testing described above, the turbine plant will be started up and operated to allow for system flush and cleanup, as well as an assessment of its readiness to support unit restart. Sealing steam will be put on the turbine, a condenser vacuum drawn, and the condensate system placed in operation. Condensate will be run in both short recycle and long recycle to allow for system Chemistry to be adjusted, as well as for the system to be cleaned up. Any materiel problems, such as leaks, will be identified for later repair. Following completion of these activities, the turbine plant will be shutdown for cleaning and inspection of the condenser, and for repair of deficiencies identified during the startup.

Following completion of Mode 5 testing, and verification that all items required for mode change have been completed, the unit will begin a slow and deliberate heatup of the primary plant. Retest and surveillance activities requiring specific plant conditions will be performed as those conditions are established. Once Normal Operating Temperature and Normal Operating Pressure (NOP/NOT) have

been reached, and testing completed, the plant will be cooled back down to Mode 5. Deficiencies uncovered during this startup will be repaired. Both the reactor plant and turbine plant will then be brought to NOP/NOT to await the Commission presentation and vote. Once Commission approval to restart has been obtained, the reactor will be brought critical and a controlled, deliberate power ascension started. The power ascension testing schedule will closely resemble a normal post-refueling power ascension, with the notable exception of Low Power Physics Testing. Since the reactor has not been refueled during this outage, core physics characteristics will he verified as the plant ascends in Mode 1, but not at zero power.

6.3 Startup and Power Ascension Administration

Startup and Power Ascension activities will be governed by two procedures. One procedure will define the administrative requirements and guidelines under which the startup and power ascension will proceed. This procedure will define, among other things, an organization to provide management oversight of startup and power ascension activities, as well as define how emergent issues are prioritized and dispositioned. This procedure will also define a process by which the organization will assess the performance of its people, processes, and equipment. In addition, there is a Startup and Power Ascension Sequencing Procedure that defines the sequence of startup and power ascension activities from Mode 5 through 100% power. Hold points in this sequencing procedure are provided to allow systematic review and assessment of plant and personnel performance and to assure that both the plant equipment and the organization are ready to proceed with the startup. These assessment criteria incorporate important attributes and parameters, including plant materiel condition, completion of necessary corrective actions, personnel performance, and responsiveness of the support activities.

7.0 LONG TERM OPERATIONAL OBJECTIVES

The Unit 3 Performance Assessment Windows described in Section 4 is the management tool being used to prepare for restart. As such, we have established performance criteria at a level appropriate to support safe, event-free operation. This level, on a going forward basis, would not be appropriate or consistent with our goals of achieving excellence in operations and industry leadership. Accordingly, the standards supporting the performance windows will be continuously raised, establishing a program of continuous improvement. The cycle of self-assessment, improvement, and higher standards will be continuously repeated.

Prior to restart, a plan for addressing deferred items, as described in Section 3, will be developed.

ATTACHMENT 1 - REGULATORY PROCESS

1. Manual Chapter 350 Process

NRC Inspection Manual Chapter (MC) 0350, "Staff Guidelines for Restart Approval," the NRC established process for approving restart of a nuclear power plant after a shutdown resulting from a significant event, complex hardware problem, or serious deficiency. Restart review activities are coordinated by a Restart Panel in accordance with the Restart Assessment Plan. The Restart Assessment Plan includes a case-specific restart checklist which evaluates:

- Assessment of Root Cause Identification and Correction
- Licensee Self-Assessment and Management Effectiveness
- Assessment of Plant and Corporate Staff Effectiveness
- Assessment of Physical Readiness of the Plant
- Assessment of Compliance with Regulatory Requirements
- Coordination with Interested Agencies and Parties

Included in the MC 0350 process is the integration of other NRC inspection and assessment processes. For the Millstone site, other major NRC assessments include:

- Effectiveness of Licensee Controls in Identifying, Resolving, and Preventing Problems (IP 40500)
- Operational Safety Team Inspection (OSTI) (IP 93802), and
- Operational Readiness Assessment Team Inspection (RATI) (IP 93806)

The results of the above inspections, as well as other NRC assessments, will be considered by the Restart Panel, culminating in a restart recommendation by the NRC staff and restart approval by the Nuclear Regulatory Commission.

2. Section 50.54(f) Activities

Each of the Millstone Units is presently subject to a request for information pursuant to 10 CFR 50.54(f), dated April 16, 1997. The April 16, 1997 request supersedes all previous NRC requests and requires the following information be provided for each unit:

1. The significant items that are needed to be accomplished prior to restart,

2. The list of items to be deferred until after restart,

3. The process and rationale used to defer items (identified in 2, above), and

4. The actions that have been taken to ensure that future operation of the unit will be conducted in accordance with the license, regulations, and UFSAR.

3. Independent Corrective Action Verification Program

The Independent Corrective Action Verification Program (ICAVP) completion is required prior to NRC restart approval. The ICAVP will review modifications of selected systems since initial licensing including:

(a) Review of engineering design and configuration control processes,
(b) Verification of the current as modified plant conditions against design basis and licensing basis documentation,
(c) Verification that design and licensing basis requirements are translated into operating, maintenance, and test procedures.
(d) Verification of system performance through review of specific test records and observation of selected testing of particular systems,
(e) Review of proposed and implemented corrective action of identified design deficiencies.

4. Employee Concerns

Due to "past failures in management processes and procedures for handling issues raised by employees," and to ensure that the employees who raise concerns are not discriminated against, the NRC ordered Millstone prior to restart to: submit a comprehensive plan within 60 days of issuance of the order to address the root cause of past performance failures; and propose within 30 days for NRC approval an independent third-party organization to oversee implementation of the plan. Independent oversight will continue until Millstone demonstrates that the conditions which led to the order have been corrected to the satisfaction of the NRC.

5. Commission Vote

Once the NRC Staff is satisfied that restart is appropriate it will prepare a restart recommendation for the Commission. The Commission approval process ordinarily will involve at least one public session (at NRC Headquarters), with presentations by the NRC Staff and NU.

Docket No. 50-423
B16978

Attachment 2

Millstone Station Unit No. 3

Operational Readiness Plan
Performance Windows Status as of
December 1997

January 1998

ORGANIZATION READINESS

Management Oversight and Effectiveness	
Standards and Expectations Communicated to the Staff	Sat for Restart
Commitment to Achieving Improved Performance	Unsat
Nuclear Safety	Trending to Sat
Understanding of Plant Issues and Corrective Actions	Sat for Restart
Effectiveness of Management Review Committees	Sat for Restart
ALARA	Sat for Restart
Procedure Compliance	Unsat
Human Performance	
Training/Qualification	
Operations	Sat for Restart
Mechanical Maintenance	Trending to Sat
Instrumentation and Electrical	Trending to Sat
Maintenance Planning	Unsat
Engineering	Trending to Sat
Staff Levels Adequate	
Operations	Sat for Restart
Human Performance	
Operations	Trending to Sat
Maintenance	
Mechanical Maintenance	Not Evaluated
Instrumentation and Electrical	Not Evaluated
Maintenance Planning	Not Evaluated
Management Oversight and Effectiveness	Trending to Sat
Industrial Safety	
Management Oversight and Effectiveness	Trending to Sat
Events	
Operations	Trending to Sat
Corrective Actions/Self Assessment Program Implementation	
Initial CR Screening	Sat for Restart
AITTS CAD Management	Sat for Restart
Overdue Assignments	Sat for Restart
OE Effectiveness	Trending to Sat
Conduct of CAD CRs/ACRs	Sat for Restart
Conduct of CAD - Self-Assessment	Sat for Restart
Root Cause Quality	Trending to Sat
Effectiveness of MRT	Sat for Restart
Trending Effectiveness	Sat for Restart
CR Close-Out Timeliness	Unsat

Work Management Program	
Work Control & Outage Management	
Surveillances	Sat for Restart
Schedule Adherence	Trending to Sat
Conduct of Work Planning	Trending to Sat
Maintenance	
Conduct of Maintenance	
Mechanical	Trending to Sat
Instrumentation and Electrical	Sat for Restart
Work Package Quality	Sat for Restart
Overall Effectiveness of Plant Maintenance Program	
Mechanical	Sat for Restart
Instrumentation and Electrical	Sat for Restart
Maintenance Backlog Management	Trending to Sat
Average Age of Backlog AWOs	Sat for Restart
Post Maintenance Testing	Sat for Restart
Preventive Maintenance Program	Trending to Sat
Procedures Program	
Procedure Compliance	
Management Oversight and Effectiveness	Unsat
Maintenance	
Mechanical Maintenance	Not Evaluated
Instrumentation and Electrical	Not Evaluated
Operations	Sat for Restart
Procedure Quality	
Operations	Trending to Sat
Technical Adequacy of Procedures	
Mechanical Maintenance	Sat for Restart
Instrumentation and Electrical	Unsat
Document Control/Availability	
Operations	Sat for Restart
Procedures/Document Control	
Maintenance	
Mechanical Maintenance	Trending to Sat
Instrumentation and Electrical	Sat for Restart
Training	
Simulator Fidelity	Sat for Restart
Management Support of Training	Trending to Sat
Licensed Operator Continuing Training	Trending to Sat
Non-Licensed Operator Training	Trending to Sat
STA	Trending to Sat

Environmental

NPDES Performance	Trending to Sat

SYSTEM READINESS

Configuration Management

Configuration Management	Sat for Restart

Design Control

Design Quality	Trending to Sat
NCRs	Unsat
Temporary Modifications	Unsat
Effectiveness of PRA Usage	Sat for Restart

10 CFR 50.59 Process

10 CFR 50.59 Safety Evaluations	Sat for Restart

Engineering Skills Enhancement

Conduct of Engineering	Sat for Restart

Physical Plant Work

No applicable window
The Maintenance and Work Control and Outage Management departments report restart required work is complete.

System Operability

Engineering	
System Readiness	Sat for Restart
Results of System Testing	Trending to Sat
Operations	
Operability of Tech Spec Systems	Sat for Restart
Operability of Required Secondary and Support Systems	Not Evaluated
Operator Burdens	Trending to Sat
Adequacy of System Line-ups	Sat for Restart
Post Maintenance Testing	Sat for Restart
Black Board (Alarms)	Not Evaluated

Testing Program

Engineering	
Adequacy of Power Ascension Testing	Sat for Restart
Surveillance Testing	Sat for Restart
Operations	
Surveillance Tests	Sat for Restart

Adequacy of Power Ascension Procedures	Not Evaluated
Procedure Quality - Surveillances	Trending to Sat
Instrumentation and Electrical	
M&TE	Sat for Restart
Technical Adequacy of Procedures	Unsat
Mechanical Maintenance	
M&TE	Sat for Restart
Technical Adequacy of Procedures	Sat for Restart
Plant Material Condition	
Housekeeping	
Management Oversight and Effectiveness	Trending to Sat
Mechanical Maintenance	Trending to Sat
Control of Consumable Chemicals	
Chemistry	Sat for Restart

OPERATIONAL READINESS

Operations	
Staff Levels Adequate	Sat for Restart
Worker Practices	Sat for Restart
Required Reading	Sat for Restart
Awareness of Plant Security	Sat for Restart
Work Observations	Sat for Restart
Awareness of Plant Status	Trending to Sat

REGULATORY READINESS

Tech Spec Improvement Plan	
Licensing	Sat for Restart
Commitment Management	
Licensing	Trending to Sat
Tech Specs	
Operations	Unsat
Final 10 CFR 50.54(f) response	Trending to Sat
NRC Significant Items List	Trending to Sat
Summary Root Cause included in final 10 CFR 50.54(f) response	Trending to Sat
Confirmatory Order - ICAVP	Trending to Sat
Confirmatory Order - ITPOP	Trending to Sat
Confirmatory Action Letter - Operator Training	Trending to Sat
10 CFR 50.54(f) Significant Items for Restart complete	Not Evaluated