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**Northeast Nuclear
Energy Company**

Memo

Decomm-01-060

March 7, 2001

TO: Millstone Unit 1 Northeast Utilities Quality Assurance Program Topical Report
Controlled Copy Holders

FROM: S. T. Day, Jr. - NSRA 

SUBJECT: Distribution of MP1 NUQAP Revision 1 Change 3

Enclosed is Millstone Unit 1 Northeast Utilities Quality Assurance Program (MP1 NUQAP) Topical Report Revision 1, Change 3. This revision was approved as LBDCR M1-00-060 and updates Appendices E and F of the Topical Report to reflect changes to PORC requirements.

Change Instructions:

Remove

Appendix E, Rev. 1, Change 2
Appendix F, Rev. 1, Change 1, 2

Insert

Summary of Change 3 to Rev. 1
Appendix E, Rev. 1, Change 2, 3
Appendix F, Rev. 1, Change 1, 2, 3

This change was effective on March 7, 2001, and should be inserted in the manual upon receipt.

Please complete and return the attached Nuclear Document Services coversheet/transmittal form to NDS acknowledging that you have received and inserted your copy of the subject revision.

Enclosure

cc: R. B. Lundin
Nuclear Records
File

Summary of Change 3 to Revision 1

Section	Description of Changes
Appendix E	1. Added discussion regarding exception to ANSI N18.7-1976, Paragraph 4.3.1 to state that experience requirements do not apply to PORC members.
Appendix F	1. PORC membership changed from "nine to eleven" to "a minimum of five" and the quorum reduced from five to a majority of the members of their duly appointed alternates; the expertise requirements were replaced with a requirement that a PORC member be an engineering or operations supervisory personnel; and the minimum meeting frequency reduced from once per month to twice per year.

APPENDIX E

MILLSTONE UNIT 1 QUALITY ASSURANCE PROGRAM

PROGRAM EXCEPTIONS

1. ANSI N45.2.9, states in part, "structure, doors, frames, and hardware should be Class A fire-related with a recommended four-hour minimum rating." The three record storage vaults have a two-hour rating.

The vaults are used for storage of documentation that is unsuitable for filming or awaiting filming.

A records organization exists along with written procedures addressing the control of quality assurance records.

2. ANSI N18.7-1976, paragraph 4.3.2.3 "Quorum" states in part: "A quorum for formal meetings of the (Independent Review) Committee held under the provisions of 4.3.2.2 shall consist of not less than a majority of the principals, or duly appointed alternates..."

A quorum of the Nuclear Safety Assessment Board shall consist of the Chairman or Vice Chairman and at least enough members to constitute a majority of the assigned members. No more than a minority of the quorum shall have line responsibility for operation of one of Millstone station's nuclear units. No more than two alternates shall be appointed voting status at any meeting in fulfillment of the quorum requirements.

3. ANSI N45.2.9-1974, paragraph 1.4, definition of "Quality Assurance Records" states in part: "For the purposes of this standard, a document is considered a quality assurance record when the document has been completed."

The following alternative definition has been developed to provide guidance during the interim period from the time a document is completed until it is transmitted to the Nuclear Document Services Facility:

"A record is considered a working document until it is transmitted to the Nuclear Document Services Facility (NDSF) at which time it is designated as a Quality Assurance Record. The following maximum time limits are established for the transmittal of working documents to the NDSF:

Operations Documents - Documentation generated during plant operations may be maintained, as needed, by operating plant departments, for up to one year.

New Construction or Betterment Documents - Documents which evolve during new construction or betterment projects shall be transmitted to NDSF within 90 days of completion of a new construction project or turnover of a betterment project or plant operations.

Procurement Documents - Inspection/Surveillance/Audit Reports generated during vendor oversight activities which are used to maintain vendor status for current and future procurements may be maintained, as needed, by the Procure the Asset group for up to three years.

All Other Working Documents - All other working documents shall be transmitted to NDSF within 6 months of their receipt or completion."

The requirements of ANSI N45.2.9-1974 do not apply to these "working documents" based on paragraph 1.1 of the ANSI standard which states:

"It (ANSI N45.2.9) is not intended to cover the preparation of the records nor to include working documents not yet designated as Quality Assurance Records."

4. Regulatory Guide 1.64 - 6/76, the Regulatory position states, in part, "It should not be construed that such verification constitutes the required independent design verification." The following alternative has been developed to allow for adequate independent design verification:

This review may be performed by the originator's Supervisor, only if the Supervisor:

Did not specify a singular design approach;

Did not establish the design inputs or did not rule out certain Design considerations;

Is the only individual in the organization competent to perform the review.

Where the Supervisor performs the design review, the next level of management shall fulfill the Supervisor's responsibilities.

5. ANSI N45.2.13 - 1976, paragraph 10.3.4, states in part, "Post-Installation Test requirements and acceptance documentation (should) shall be mutually established by the purchaser and supplier." Involvement by the supplier in establishing Post-Installation Test requirements and acceptance documentation is requested only when it is deemed necessary and proper by the responsible engineering organization.

When procurements are made for spare parts from suppliers who are not the original equipment manufacturer, the supplier may have little or no understanding or knowledge of either the operation of the system the component is to be installed in, or applicable Post-Installation Test requirements and acceptance documentation. As such, the responsible engineering organization assumes responsibility for establishing Post Installation Test requirements and acceptance documentation.

6. ANSI N45.2.2-1972, paragraph 1.2, states in part that, "The requirements of this standard apply to the work of any individual or organization that participates in the packaging,

shipping, receiving, storage, and handling of items to be incorporated into nuclear power plants."

Since a portion of procurement activities involve commercial suppliers which do not fully comply with the requirements of ANSI N45.2.2, the Procure the Asset organization verifies through source inspections, receipt inspection, and/or survey activities that the quality of the materials, items, components or equipment is preserved by those suppliers to the extent that packaging, shipping, storage and handling methods are employed which are commensurate with the nature of the product.

7. Deleted (not applicable to Millstone Unit 1)
8. Deleted (not applicable to Millstone Unit 1)
9. Regulatory Guide 1.33 - 2/78, regarding audits, states in part:
 - (a) "The results of actions taken to correct deficiencies...at least once per 6 months."
 - (b) "...technical specifications and applicable license conditions - at least once per 12 months."
 - (c) "The performance, training, and qualifications of the facility staff - at least once per 12 months."

An alternative which modifies these Audit frequencies to at least once per 24 months has previously been accepted by the NRC via license amendment 79 for Millstone Unit 1.

10. Deleted
11. Deleted (not applicable to Millstone Unit 1)
12. Deleted.
13. Deleted (not applicable to Millstone Unit 1)
14. ANSI N18.7-1976, Paragraph 5.2.15, "Review, Approval, and Control of Procedures," states in part: "Plant procedures shall be reviewed by an individual knowledgeable in the area affected by the procedure no less frequently than every two years to determine if changes are necessary or desirable."

Millstone Unit 1 implements administrative and programmatic controls that ensure procedures are maintained current in accordance with 10CFR50, Appendix B, thus meeting the intent of the biennial review.

Millstone Unit 1 implements administrative controls to perform biennial reviews of non-routine procedures such as ONPs, E-Plan, Security and other procedures that may be dictated by an event.

Programmatic controls specify conditions when the mandatory review of plant procedures apply, and include a requirement to review applicable procedures following an accident or transient and following any modification to a system.

Millstone Unit 1 utilizes a pre-job briefing practice to ensure that personnel are aware of what is to be accomplished and what procedures will be used prior to beginning a job. In addition, the Procedure Compliance Policy requires that the job be stopped and the procedure be revised or the situation resolved prior to work continuing if procedures cannot be implemented as written.

Additionally, the Millstone Unit 1 Quality Assurance Program requires the review of a representative sample of plant procedures as part of routine audits and surveillances to ensure that existing administrative controls for procedure verification, review and revision are effective in maintaining the quality of plant procedures. Significant procedural deficiencies are identified and corrected through the Station Corrective Action Program. The Station Self-Assessment Program also periodically reviews selected procedures and identifies deficiencies and improvements through the Corrective Action Program.

15. ANSI N18.7 - 1976, Paragraph 4.3.1, the specific areas of experience described in this paragraph are not applicable to the PORC (i.e., on-site safety review committee), but the committee must be comprised of site operating or engineering supervisory personnel.

APPENDIX F

MILLSTONE UNIT 1 QUALITY ASSURANCE PROGRAM

ADMINISTRATIVE CONTROLS

NOTE

"Specification" numbers refer to the Unit 1 Technical Specification.

1.0 REVIEW AND AUDIT

1.1 PLANT OPERATION REVIEW COMMITTEE (PORC)

1.1.1 Function

The PORC shall function to advise the Director - Unit 1 Operations on all matters related to nuclear safety.

1.1.2 Composition

The PORC shall be composed of a minimum of five members who shall be site operating or engineering supervisory personnel.

The members of PORC shall be appointed in writing by the Director - Unit 1 Operations. The Chairperson and alternate Chairperson of the PORC shall be drawn from the PORC members and be appointed in writing by the Director - Unit 1 Operations.

1.1.3 Alternates

Alternate members shall be appointed in writing by the PORC Chairperson to serve on a temporary basis; however, no more than two alternates shall participate in PORC activities at any one time.

1.1.4 Meeting Frequency

The PORC shall meet at least twice per year and as convened by the PORC Chairperson.

1.1.5 Quorum

A quorum of the PORC shall consist of a majority of the members, or their duly appointed alternates, including the Chairperson or Vice Chairperson.

1.1.6 Responsibilities

The PORC shall be responsible for:

- a. Review of 1) all procedures, except common site procedures, required by Specification 5.5 and changes thereto, 2) all programs, except common site programs, required by Specification 5.6 and changes thereto, 3) any other proposed procedures, programs, or changes thereto as determined by the Director - Unit 1 Operations to affect nuclear safety. Procedures and programs required by Specification 5.5 and 5.6 that are designated for review and approval by the Station Qualified Reviewer Program do not require PORC review.
- b. Review of all proposed tests and experiments that affect nuclear safety.
- c. Review of all proposed changes to Sections 1.0 - 4.0 of the Technical Specifications.
- d. Review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety.
- e. Investigation of all violations of the Technical Specifications and preparation and forwarding of a report covering evaluation and recommendations to prevent recurrence to the Senior Vice President and CNO - Millstone and to the Chairperson of the Nuclear Safety Assessment Board.
- f. Review of all REPORTABLE EVENTS.
- g. Review of facility operations to detect potential safety hazards.

- h. Performance of special reviews and investigations and reports thereon as requested by the Chairperson of the Nuclear Safety Assessment Board.
- i. Render determinations in writing if any item considered under (a) through (d) above, as appropriate and as provided by 10CFR50.59 or 10CFR50.92, constitutes an unreviewed safety question or requires a significant hazards consideration determination.
- j. Review of the unit-specific Fire Protection Program and implementing procedure.

1.1.7 Authority

The PORC shall:

- a. Recommend to the Director - Unit 1 Operations written approval or disapproval of items considered under Responsibilities (a) through (d) above.
- b. Provide immediate written notification to the Senior Vice President and CNO - Millstone and the Chairperson of the Nuclear Safety Assessment Board of disagreement between the PORC and the Director - Unit 1 Operations; however, the Director - Unit 1 Operations shall have responsibility for resolution of such disagreements pursuant to Specification 5.1.1.

1.1.8 Records

The PORC shall maintain written minutes of each meeting and copies shall be provided to the Senior Vice President and CNO - Millstone and the Chairperson of the Nuclear Safety Assessment Board.

1.2 SITE OPERATIONS REVIEW COMMITTEE (SORC)

1.2.1 Function

The SORC shall function to advise the Senior Vice President and CNO - Millstone on all matters related to nuclear safety of the entire Millstone Station Site.

1.2.2 Composition

The SORC shall be composed of the:

- | | |
|---------|---|
| Member: | Director - Unit 1 Operations. |
| Member: | Master Process Owner - Operate the Asset. |

Member:	Process Owner - Operations Millstone 2.
Member:	Process Owner - Operations Millstone 3.
Member:	Process Owner - Radiological Protection.
Member:	Master Process Owner - Support Services.
Member:	Designated Member of Unit 1 PORC.
Member:	Designated Member of Unit 2/3 PORC.
Member:	Designated Member of Unit 2/3 PORC.
Member:	Designated Member of Unit 2/3 PORC.
Member:	Designated Member of Oversight.

The SORC Chairperson and two Vice Chairpersons of the SORC shall be drawn from the selected SORC Members and be appointed in writing by the Senior Vice President and CNO Millstone.

1.2.3 Alternates:

Alternate members shall be appointed in writing by the SORC Chairperson to serve on a temporary basis; however, no more than two alternates shall participate in SORC activities at one time.

1.2.4 Meeting Frequency

The SORC shall meet at least once per six months and as convened by the SORC Chairperson.

1.2.5 Quorum

A quorum of the SORC shall consist of the Chairperson or Vice Chairperson and five members including alternates.

1.2.6 Responsibilities

The SORC shall be responsible for:

- a. Review of 1) all common site procedures required by Specification 5.5 and changes thereto, 2) all common site programs, required by Specification 5.6 and changes thereto, 3) any other proposed procedures, programs, or changes thereto as determined by the Senior Vice President and CNO - Millstone to affect site nuclear safety. Common site programs and procedures required by Specification 5.5 and 5.6 that are designated for review and approval by the Station Qualified Reviewer Program do not require SORC review.
- b. Review of all proposed changes to Section 5.0 "Administrative Controls" of the Technical Specifications.

- c. Performance of special reviews and investigations and reports as requested by the Chairperson of the Nuclear Safety Assessment Board.
- d. Not used.
- e. Not used.
- f. Review of all common site proposed tests and experiments that affect nuclear safety.
- g. Review of all common site proposed changes or modifications to systems or equipment that affect nuclear safety.
- h. Render determinations in writing or meeting minutes if any item considered under (a) through (g) above, as appropriate and as provided by 10CFR50.59 or 10CFR50.92, constitutes an unreviewed safety question or requires a significant hazards consideration determination.
- i. Review of the common site fire protection program and implementing procedures.

1.2.7 Authority

The SORC shall:

- a. Recommend to the Senior Vice President and CNO - Millstone written approval or disapproval in meeting minutes of items considered under Responsibilities (a) through (g) above.
- b. Provide immediate written notification or meeting minutes to the President and Chief Executive Officer (CEO) and the Chairperson of the Nuclear Safety Assessment Board of disagreement between the SORC and the Senior Vice President and CNO - Millstone; however, the Senior Vice President and CNO - Millstone shall have responsibility for resolution of such disagreements pursuant to Specification 5.1.1.

1.2.8 Records

The SORC shall maintain written minutes of each meeting and copies shall be provided to the Senior Vice President and CNO - Millstone and Chairperson of the Nuclear Safety Assessment Board.

1.3 NUCLEAR SAFETY ASSESSMENT BOARD (NSAB)

1.3.1 Function

The minimum qualifications of NSAB members are as follows:

- a. The Chairperson and NSAB members shall have:
 - 1. An academic degree in an engineering or physical science field, or hold a senior management position, and
 - 2. A minimum of five years technical experience in their respective field of expertise.
- b. The NSAB shall have experience in and shall function to provide independent oversight review and audit of designated activities in the areas of:
 - 1. Nuclear power plant operations;
 - 2. Nuclear engineering;
 - 3. Chemistry and radiochemistry;
 - 4. Metallurgy;
 - 5. Instrumentation and control;
 - 6. Radiological safety;
 - 7. Mechanical and electrical engineering; and
 - 8. Quality assurance practices.

The NSAB serves to advise the Senior Vice President and CNO - Millstone on matters related to nuclear safety and notify the Senior Vice President and CNO - Millstone within 24 hours of a safety significant disagreement between the NSAB and the organization or function being reviewed.

1.3.2 Composition

The Senior Vice President and CNO - Millstone shall appoint, in writing, a minimum of seven members to the NSAB and shall designate from this membership, in writing, a Chairperson and a Vice Chairperson. The membership shall function to provide independent review and audit in the areas listed in Function (b) above.

1.3.3 Alternates

All alternate members shall be appointed, in writing, by the Senior Vice President and CNO - Millstone; however, no more than two alternates shall participate as members in NSAB activities at any one time.

1.3.4 Meeting Frequency

The NSAB shall meet at least once per calendar quarter.

1.3.5 Quorum

The quorum of the NSAB shall consist of a majority of NSAB members including the Chairperson or Vice Chairperson. No more than a minority of the quorum shall have line responsibility for operation of the same Millstone station nuclear unit. No more than two alternates shall be appointed as members at any meeting in fulfillment of the quorum requirements.

1.3.6 Review Responsibilities

The NSAB shall be responsible for the review of:

- a. The safety evaluations for changes to procedures, equipment, or systems, and tests or experiments completed under the provisions of 10 CFR 50.59, to verify that such actions did not constitute an unreviewed safety question as defined in 10 CFR 50.59;
- b. Proposed changes to procedures, equipment, or systems that involve an unreviewed safety question as defined in 10 CFR 50.59;
- c. Proposed tests or experiments that involve an unreviewed safety question as defined in 10 CFR 50.59;
- d. Proposed changes to Technical Specifications and the Operating License;
- e. Violations of applicable codes, regulations, orders, license requirements, or internal procedures having nuclear safety significance;
- f. All Licensee Event Reports required by 10 CFR 50.73;
- g. Indications of significant unanticipated deficiencies in any aspect of design or operation of structures, systems, or components that could affect nuclear safety;

- h. Significant accidental, unplanned, or uncontrolled radioactive releases, including corrective actions to prevent recurrence;
- i. Significant operating abnormalities or deviations from normal and expected performance of equipment that could affect nuclear safety;
- j. The performance of the corrective action program; and
- k. Audits and audit plans.

Reports or records of these reviews shall be forwarded to the Senior Vice President and CNO - Millstone within 30 days following completion of the review.

1.3.7 Audit Program Responsibilities

The NSAB audit program shall be the responsibility of the Oversight Department. NSAB audits shall be performed at least once per 24 months in accordance with administrative procedures and shall encompass:

- a. The conformance of unit operation to provisions contained within the Technical Specifications and applicable license conditions;
- b. The training and qualifications of the unit staff;
- c. The implementation of all programs required by Specification 5.6;
- d. The Fire Protection Program and implementing procedures.
- e. The fire protection equipment and program implementation utilizing either a qualified offsite license fire protection engineer or an outside independent fire protection consultant.
- f. Actions taken to correct deficiencies occurring in equipment, structures, systems, components, or method of operation that affect nuclear safety; and
- g. Other activities and documents as requested by the Senior Vice President and CNO - Millstone.

1.3.8 Records

Written records of reviews and audits shall be maintained. As a minimum these records shall include:

- a. Results of the activities conducted under the provisions of this NSAB Section;

- b. Deleted
- c. Deleted

2.0 STATION QUALIFIED REVIEWER PROGRAM

2.1 Function

The Director - Unit 1 Operations, Vice President - Decommissioning, or Senior Vice President and CNO - Millstone may establish a Station Qualified Reviewer Program whereby required reviews of designated procedures or classes of procedures required by PORC, Responsibilities item (a), and SORC, Responsibilities item (a) are performed by Station Qualified Reviewers and approved by designated managers [Responsible Individual(s) for the procedure(s)]. These reviews are in lieu of reviews by the PORC or SORC. However, procedures which require a 10CFR50.59 evaluation must be reviewed by the PORC or SORC.

2.2 Responsibilities

The Station Qualified Reviewer Program shall:

- a. Provide for the review of designated procedures, programs, and changes thereto by a Qualified Reviewer(s) other than the individual who prepared the procedure, program, or change.
- b. Provide for cross-disciplinary review of procedures, programs, and changes thereto when organizations other than the preparing organization are affected by the procedure, program, or change.
- c. Ensure cross-disciplinary reviews are performed by a Qualified Reviewer(s) in affected disciplines, or by other persons designated by cognizant Managers or Directors as having specific expertise required to assess a particular procedure, program, or change. Cross-disciplinary reviewers may function as a committee.
- d. Provide for a screening of designated procedures, programs and changes thereto to determine if an evaluation should be performed in accordance with the provisions of 10CFR50.59 to verify that an unreviewed safety question does not exist. This screening will be performed by personnel trained and qualified in performing 10CFR50.59 evaluations.
- e. Provide for written recommendation by the Qualified Reviewer(s) to the responsible Manager for approval or disapproval of procedures and programs considered under PORC, Responsibilities item (a) and SORC, Responsibilities

item (a), and that the procedure or program was screened by a qualified individual and found not to require a 10 CFR 50.59 evaluation.

If the responsible manager determines that a new program, procedure, or change thereto requires a 10 CFR 50.59 evaluation, that Manager will ensure the required evaluation is performed to determine if the new procedure, program, or change involves an unreviewed safety question. The new procedure, program, or change will then be forwarded with the 10 CFR 50.59 evaluation to PORC or SORC for review.

Personnel recommended to be Station Qualified Reviewers shall be designated in writing by the Director - Unit 1 Operations or Senior Vice President and CNO - Millstone or Vice President - Nuclear Work Service for each procedure, program, or class of procedure or program within the scope of the Station Qualified Reviewer Program.

Temporary procedure changes shall be made in accordance with Specification 5.5.5 with the exception that changes to procedures for which reviews are assigned to Qualified Reviewers will be reviewed and approved as described in Responsibilities (a) through (e) above.

2.3 Records

The review of procedures and programs performed under the Station Qualified Reviewer Program shall be documented in accordance with administrative procedures.

2.4 Training and Qualification

The training and qualification requirements of personnel designated as a Qualified Reviewer in accordance with the Station Qualified Reviewer Program shall be in accordance with administrative procedures. Qualified reviewers shall have:

- a. A Bachelors degree in engineering, related science, or technical discipline, and two years of nuclear power plant experience;

OR

- b. Six years of nuclear power plant experience;

OR

- c. An equivalent combination of education and experience as approved by a Department Manager.

3.0 RECORD RETENTION

- (1) The following records shall be retained for at least five years:
 - a. Records and logs of facility operation covering time interval at each power level.
 - b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.
 - c. All REPORTABLE EVENTS.
 - d. Records of surveillance activities, inspections, and calibrations required by these technical specifications.
 - e. Records of reactor tests and experiments.
 - f. Records of changes made to operating procedures.
 - g. Records of radioactive shipments.
 - h. Records of sealed source leak tests and results.
 - i. Records of annual physical inventory of all sealed source material of record.
- (2) The following records shall be retained for the duration of the facility operating license:
 - a. Records and drawing changes reflecting facility design modifications made to systems and equipment described in the Final Safety Analysis Report.
 - b. Records of new and irradiated fuel inventory, fuel transfers, and assembly burnup histories.
 - c. Records of facility radiation and contamination surveys.
 - d. Records of radiation exposure for all individuals entering radiation control areas.
 - e. Records of gaseous and liquid radioactive material released to the environs.
 - f. Records of transients or operational cycles for those facility components designed for a limited number of transients or cycles.

- g. Records of training and qualification for current members of the plant staff.
- h. Records of inservice inspections performed pursuant to the Technical Specifications.
- i. Records of quality assurance activities required by the QA Manual.
- j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59
- k. Records of meetings of the PORC, the NSAB, and the SORC.
- l. Records of Environmental Qualification.
- m. Records of reviews performed for changes made to the Radiological Effluent Monitoring and Offsite Dose Calculation Manual (REMDCM) and the Process Control Program.