

PROJECT  
INSTRUCTION

Sargent & Lundy

INSTRUCTION PI-MP3-04  
REV. 2

Client: Northeast Utilities

Station: Millstone Unit 3

Title: PROGRAMMATIC REVIEWS

☒ Safety-Related

☐ Non-Safety-Related

Reviewed By:

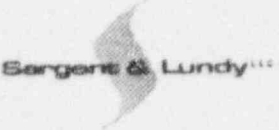
Approved By:

System Lead	Programmatic Lead	O&M Lead	Accident Mitigation Lead	QA Engineer	Internal Review Committee Chairman	Verification Team Manager
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
Description						Date: <u>5-16-97</u>

Rev. 2

- Added a technical review (in addition to process implementation review) for current changes outside the ICAVP systems.
- Changed the sample size for past changes to a "suitable" sample
- Added past change reviews for MEPL, Commercial Grade Dedication and NCRs/EWRs
- Clarified types of procedures covered by past change reviews

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## 1.0 Purpose

This project instruction (PI) establishes the Sargent & Lundy procedure for performing programmatic reviews as a part of the ICAVP. These programmatic reviews are performed in addition to the ICAVP system design and licensing basis, O&M and testing, accident mitigation system reviews, and physical configuration reviews. The programmatic reviews are conducted on a horizontal basis (across systems) for the purpose of determining if the actions taken by Northeast Utilities (NU) to correct previously identified problems have been effective and if the NU change processes are effective.

The scope of the programmatic reviews will include:

### Licensee Initiated Corrective Actions

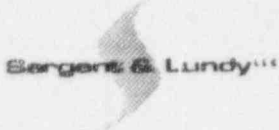
As part of its Configuration Management Program (CMP), NU has performed a vertical slice review of safety-significant and risk significant systems and has identified degraded or non-conforming conditions. For the degraded or non-conforming conditions NU is initiating corrective actions. The programmatic review will assess the adequacy of these corrective actions. This review will be conducted for all corrective actions associated with the ICAVP sample systems, and for a representative sample of corrective actions associated with the other NU completed CMP vertical slice systems.

### Change Processes

NU's current plant change processes will be reviewed for both their adequacy with respect to industry standards and for the effectiveness by which they are being implemented. Both design change processes and procedure change processes will be included in this review. For changes made in the past, selected changes will be reviewed for technical adequacy to assure that the plant licensing basis or design basis was not compromised.

## 2.0 References

- 2.1 NRC Confirmatory Order Establishing Independent Corrective Action Verification Program - Millstone Nuclear Power Station, Units 1, 2 and 3
- 2.2 Millstone ICAVP Oversight Inspection Plan, approved 12/19/96
- 2.3 PI-MP3-09, Preparation and Approval of Checklists
- 2.4 PI-MP3-11, Discrepancy Report Submittal and Closure
- 2.5 NUMARC 90-12, Design Basis Program Guidelines

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2.6 PI-MP3-12, Project File Index

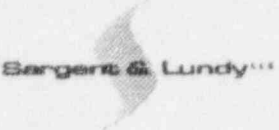
2.7 CK-MP3-04, Series checklists as follows:

- CK-MP3-04-01 Corrective Actions
- CK-MP3-04-02 Change Process Review
- CK-MP3-04-03 Change Procedure Implementation
- CK-MP3-04-04 Setpoint Change Review
- CK-MP3-04-05 MEPL Determination Review
- CK-MP3-04-06 Commercial Grade Dedication Review
- CK-MP3-04-07 NCR/EWR Review

Note: Checklists used in the performance of this PI are not included as attachments to the PI. Checklists are prepared and controlled as separate documents per PI-MP3-09.

### 3.0 Definitions

- 3.1 **Programmatic Review Group (PRG)** - The subgroup of the ICAVP Verification Team responsible for performing the reviews of corrective actions and change processes.
- 3.2 **Current Licensing Basis (CLB)** - The set of NRC requirements applicable to a specific plant, and a licensee's written commitments for assuring compliance with and operation within applicable NRC requirements and the plant-specific design basis (including all modifications and additions to such commitments over the life of the license) that are docketed and are in effect. The CLB includes the NRC regulations contained in 10 CFR Parts 2, 19, 20, 21, 30, 40, 50, 51, 55, 72, 73, 100 and appendices thereto; orders; license conditions; exemptions, and Technical Specifications (TS). It also includes the plant-specific design basis information defined in 10 CFR 50.2 as documented in the most recent Final Safety Analysis Report (FSAR) as required by 10 CFR 50.71 and the licensee's commitments remaining in effect that were made in docketed licensing correspondence such as licensee responses to NRC bulletins, generic letters, and enforcement actions, as well as licensee commitments documented in NRC safety evaluations or licensee event reports.
- 3.3 **System Review Group (SRG)** - The subgroup of the ICAVP Verification Team responsible for performing an in-depth review of the design of the systems in the scope of the ICAVP.
- 3.4 **Operations & Maintenance and Testing Review Group (ORG)** - The subgroup of the ICAVP Verification Team responsible for the review of the operating,

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maintenance and testing procedures, and training manuals for the systems within the scope of the ICAVP.

- 3.5 **Design Bases** - The information which identifies the specific functions to be performed by a structure, system or component of a facility, and the specific values or ranges of values chosen for controlling parameters as reference bounds for design. These values may be (1) restraints derived from generally accepted "state of the art" practices for achieving functional goals or (2) requirements derived from analysis of the effects of a postulated accident for which a structure, system or component must meet its functional goals.
- 3.6 **Verifier** - The individual assigned to review engineering attributes within his area of responsibility.
- 3.7 **Discrepancy Report (DR)** - The mechanism for documenting the discrepant conditions identified by the ICAVP and reporting an apparent error, inconsistency, or procedural violation with regard to licensing commitments, specifications, procedures, codes or regulations.

#### 4.0 Responsibilities

- 4.1 The Programmatic Review Group Lead shall be responsible for assigning the verifier for each programmatic review and for overall coordination of the Programmatic Review effort. He shall also approve checklists that are prepared for each program review, and he shall provide concurrence after the review is performed that the checklist is complete.
- 4.2 The Verifier shall be responsible for performing the programmatic review and completing the appropriate checklist. The Verifier or any other appropriate PRG Member shall prepare checklists prior to a program review.

#### 5.0 Procedure

- 5.1 Corrective Actions
  - 5.1.1 General

All NU identified corrective actions for the ICAVP sample systems shall be included in the programmatic review. This will include corrective actions associated with the CMP and for all previously identified design-related deficiencies identified by the architect/engineer before initial operation. For the remaining systems in the CMP vertical slice which have been completed by NU,

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a random sample of NU corrective actions shall be reviewed. It is not the intent of the ICAVP to verify completion of the corrective action, but only to assess the acceptability of the proposed corrective action. Therefore, it is only necessary that the corrective action determination be completed by NU to be included in this sample.

#### 5.1.2 Review Process

The NU CMP findings/corrective action documents shall be obtained from the SRG for the ICAVP sample systems. The other CMP completed findings/corrective action documents (for systems outside the ICAVP) shall be obtained from NU.

Checklist CK-MP3-04-01, "Corrective Actions" shall be prepared by an appropriate team member for the review of corrective actions. Using the checklist, the PRG Verifier shall assess the corrective actions for adequacy of the following:

- a. Root cause determination - what is the fundamental cause, which, if corrected, will prevent recurrence of the condition? Are plant processes or procedures affected?
- b. Extent of condition determination - the extent to which other systems, structures, components, or activities are affected.
- c. Plant restart - is the corrective action required prior to restart?
- d. Content - is the corrective action adequate in resolving the issue?

After reviewing the checklist for completeness, the PRG Lead shall file the checklist in accordance with PI-MP3-12.

#### 5.1.3 Discrepancies

The Verifier shall prepare a Discrepancy Report in accordance with PI-MP3-11 for any discrepancies identified during the corrective action review.

### 5.2 Change Processes

#### 5.2.1 General

As part of the ICAVP system reviews, the SRG and the ORG will assess the plant modifications made on the systems sampled in the ICAVP. This review will evaluate the effectiveness of the change processes involved in these modifications (i.e. if the resulting modification is found to be acceptable, it can be inferred that the process used in performing the modification is acceptable).



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In addition to this system review, specific process related reviews will also be performed as controlled by this PI. The various change processes reviewed shall include the following:

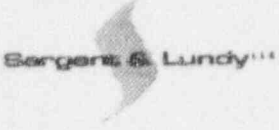
<u>Process</u>	<u>Corresponding MP3 Procedure</u>
drawings	NUC DCM Chapter 7
specifications	NUC DCM Chapter 6
calculations	NUC DCM Chapter 5
procedures	DC1, DC2, DC3, DC4
temporary alterations	NGP 8.05
minor modifications	NUC DCM Chapter 3
modifications	NUC DCM Chapter 3
licensing documents	NGP-4.03
vendor manuals	NUC DCM Chapter 8
like for like replacements	NUC DCM Chapter 1
setpoints	NGP 3.16

## 5.2.2 Review Process

### A. Assess Adequacy of Current Process

The current MP3 procedure for the processes listed in Section 5.2.1 will be evaluated for content and completeness. This evaluation will determine if the procedure exercises adequate controls on the change process and invokes appropriate interface reviews to assure the plant design basis and configuration is maintained consistent with the licensing basis. The evaluation will be based on guidance provided in the following:

Reg. Guide 1.33 Quality Assurance Program Requirements (Operation)  
 NRC Inspection Manual  
 INPO guidelines  
 INPO 87-006 Report on Configuration Management in the Nuclear  
 Industry  
 NEI guidelines

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INPO 87-006 Report on Configuration Management in the Nuclear  
Industry  
NEI guidelines

Checklist CK-MP3-04-02, "Change Process Review" shall be prepared by an appropriate team member for the evaluation of the current MP3 procedures according to the above. Using the checklist, the PRG Verifier shall assess the adequacy of each procedure. After reviewing the checklist for completeness, the PRG Lead shall file the checklist in accordance with PI-MP3-12.

B. Assess Implementation of Procedures

The adequacy of NU's implementation of the change process procedure will be evaluated by reviewing actual plant change documentation. The evaluation will determine if the procedure is being followed, that the required checklists are being accurately and completely filled in, and that all other documentation is complete and procedurally adequate. This evaluation shall be performed for the plant changes to the selected ICAVP systems that were made under the current change process procedures noted in Section 5.2.1. If a suitable sample of these changes for a particular process is not captured in the system reviews, a suitable sample outside the selected ICAVP systems will be reviewed. Since the system review will assess the technical adequacy of the change, the programmatic review will evaluate only the procedural adequacy of the change. For samples outside the ICAVP systems, both procedural and technical adequacy will be evaluated.

Checklist CK-MP3-04-03, "Change Procedure Implementation" shall be prepared by a qualified team member for the evaluation of the implementation of MP3 procedures on current changes according to the above. Using the checklist, the PRG Verifier shall assess the adequacy of each change. After reviewing the checklist for completeness, the PRG Lead shall file the checklist in accordance with PI-MP3-12.

C. Assess Adequacy of Past Changes

Change processes have evolved over time, and the level of control of changes has also changed. In order to determine if changes may have been made that affected the plant design basis or licensing basis without proper control, a review of select past changes will be made. This review will be from systems covered in NU's CMP outside the selected ICAVP systems.

In the ICAVP system vertical slice reviews, all plant modifications will be reviewed for technical adequacy (PI-MP3-03). This review will include all

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changes associated with the modifications including numerous drawing, calculation, and specification changes. Therefore, the programmatic review of past changes will focus on changes made in systems beyond the selected ICAVP systems for the following change items:

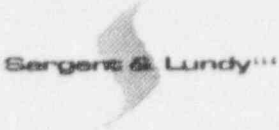
- procedures (normal, abnormal, emergency operating; IST; surveillance; maintenance)
- temporary alterations
- licensing documents
- vendor manuals
- like for like replacements
- setpoints
- DCNs not associated w/Mod's (drawings and specifications)
- Material, Equipment and Parts List (MEPL)
- Commercial Grade Dedication
- Non-Conformance Reports/Engineering Work Requests (dispositioned use-as-is)

For each of these processes, a suitable sample of changes during each five-year interval will be reviewed for their technical adequacy, to assure that they did not compromise the unit's design or licensing basis. This review will include, as applicable, the proper application of ASME Section XI requirements for repairs and replacements. The sample size will be determined with the NRC's concurrence after changes are identified. The changes will be selected from lists of the various changes as related to the controlling/initiating procedure applicable at the time of the change. Controlling/Initiating procedures may include processes such as Design Change Notices (DCN), Engineering Work Requests (EWR), Maintenance Support Engineering Evaluations (MSSE), Authorized Work Orders (AWO), etc. The "process specific questions" in checklist CK-MP3-04-02 shall be used to assess the adequacy of the change. Applicable checklists used in the SRG and the ORG (e.g. CK-MP3-03-20 and CK-MP3-06-12) may be used to evaluate the technical adequacy of each change. In addition, the following PRG checklists shall be used, as applicable:

CK-MP3-04-04 Setpoint Change Review  
 CK-MP3-04-05 MEPL Determination Review  
 CK-MP3-04-06 Commercial Grade Dedication Review  
 CK-MP3-04-07 NCR/EWR Review

Using the appropriate checklist(s), the PRG Verifier shall assess the adequacy of each past change. Alternately, SRG or ORG verifiers may perform this review. After reviewing each checklist for completeness, the PRG Lead shall file the checklist in accordance with PI-MP3-12.



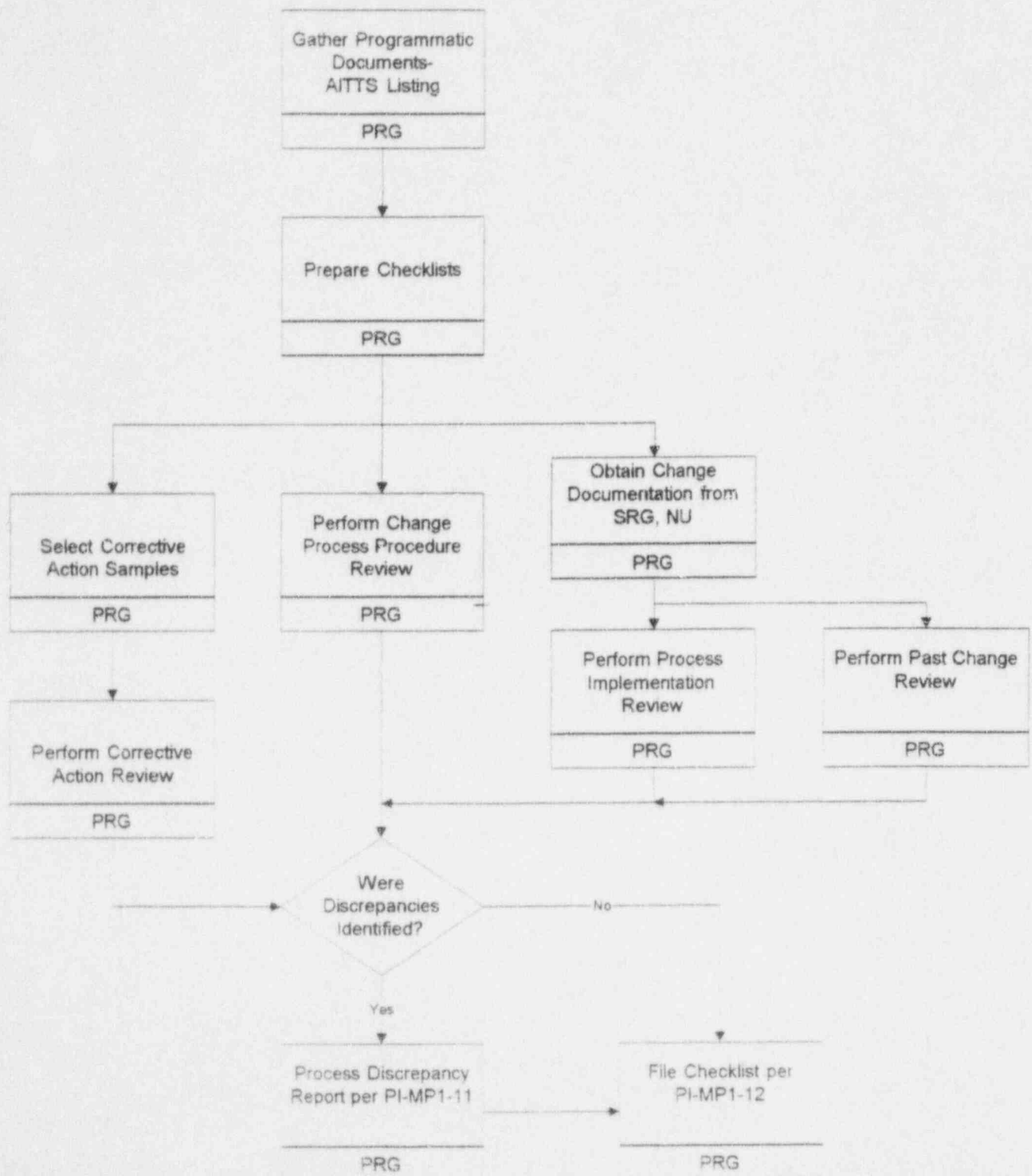
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### 5.2.3 Discrepancies

The Verifier shall prepare a Discrepancy Report in accordance with PI-MP3-11 for any discrepancies identified during the change process reviews.

## 6.0 Attachments

- 6.1 ICAVP Process Flowchart, "Programmatic Reviews" (1 page)



ICAVP PROCESS FLOWCHART  
Programmatic Reviews