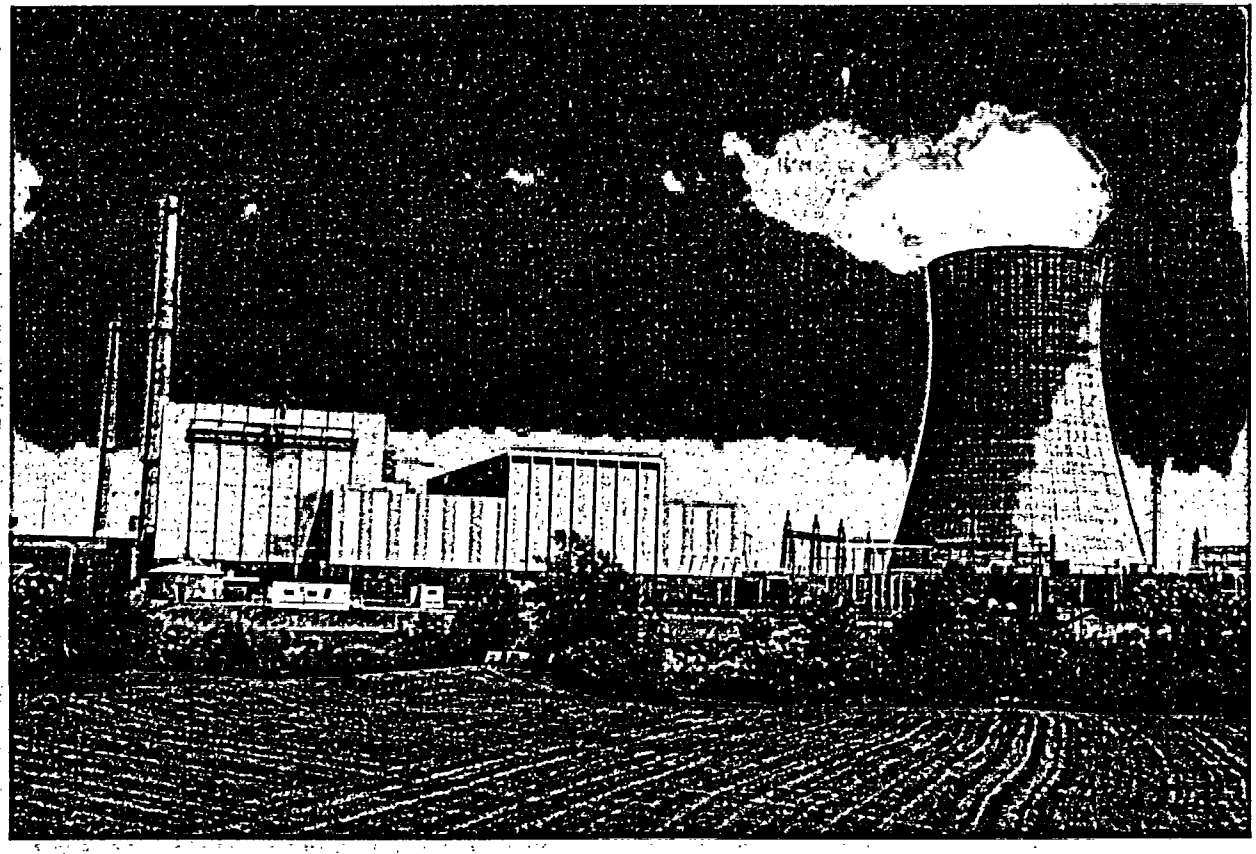
Nine Mile Point Units 1 and 2
LRA Status Update



June 9, 2005

Agenda

- Opening Remarks — M. Flaherty
- Recovery Plan Overview — D. Dellario
  - Focus Areas
  - Road Map of LRA Changes
- Summary — M. Flaherty

Opening Remarks

- Purpose of meeting
  - Provide Status Update of Recovery Project
  - Review "Road Map" for LRA
- Building Quality into Recovery Project
  - Extensive Industry License Renewal Experience on team
    - Brunswick, Cook, Ginna, Monticello, Palisades, Robinson and Point Beach
  - Use of Checks and Balances
    - Use of Site Champions and Experts
    - Use of Challenge Boards for all Products
    - Senior Constellation Management Oversight

Nine Mile Point License Renewal Recovery Project

Focus Areas

- Non-Safety-Related Affecting Safety-Related Scoping 10CFR54.4(a)(2)
- Quality of Requests for Additional Information
- Programs

Nine Mile Point License Renewal Recovery Project

- **Non-Safety-Related Affecting Safety-Related Scoping 10CFR54.4(a)(2)**

  - CLB Review Complete
  - SR/NSR Interface/Anchor Point Review
    - Drawing Review Completed
    - Walkdowns Completed
    - Structural Engineering Reviews Continue
  - NSR-SR Spatial Relationship Review Completed

Nine Mile Point License Renewal Recovery Project

- **Quality of Requests for Additional Information**
  - 28 of 28 New RAI responses written
  - 25 of 28 Presented and Approved by Challenge Board
  - Industry RAI Reviews – Current RAIs and NSR scoping efforts align us to industry RAIs

Nine Mile Point License Renewal Recovery Project

- **Programs**
  - Reviewed Draft GALL Rev 1 for LRA Impact – On Schedule
    - GALL Rev. 1 issues addressed or incorporated where applicable
    - Changes resulting from GALL Rev 1 are identified as the "latest industry and regulatory guidance" in the LRA
    - Programs reflect latest NEI/NRC discussions concerning Rev. 1 (i.e., May 16, 2005 conference)
    - Minimal changes, primary impact is on electrical programs

Nine Mile Point License Renewal Recovery Project

- **Programs (Continued)**
  - Program Basis Documents – On Schedule
    - Substantial enhancements over previous program documents
      - Identify specific implementing procedures
      - Document required revisions and enhancements
      - Contain more detailed GALL attribute evaluations
    - Will be used to develop or enhance programs to be used during the PEO
    - Aligned/Benchmarked with the latest applicants

Nine Mile Point License Renewal Recovery Project

- **"Road Map" of LRA changes**
  - Incorporation of RAIs
  - NSR Re-Scoping
  - Incorporation of Audit Items
  - Structural Re-Scoping
  - Appendix A & B Changes resulting from program benchmarking

2.3.1.A.4 NMP1 REACTOR RECIRCULATION SYSTEM

System Description

The NMP1 Reactor Recirculation System is designed to provide a variable reactor coolant flow in order to control reactor power levels.

The Reactor Recirculation System is part of the reactor coolant pressure boundary and consists of five, external loops. Each loop draws suction from the downcomer annulus region of the RPV and discharges reactor coolant to the RPV lower plenum. Each loop consists of a variable speed pump, blocking valves, bypass line and associated instrumentation. The reactor recirculation pumps are controlled by separate variable frequency motor-generator sets, each having associated controls and instrumentation. Other systems that connect directly to the Reactor Recirculation System piping are the Emergency Cooling System, Shutdown Cooling System, Reactor Water Cleanup System and the Sampling System.

This system is in scope for license renewal for the following reasons:

- It performs a safety-related function(s) per 10 CFR 54.4(a)(1).
- It contains NSR SCs whose failure could prevent satisfactory accomplishment of any of the functions identified in 10 CFR 54.4(a)(1).
- It contains SCs relied on in safety analyses or plant evaluations to perform a function that demonstrates compliance with the Commission's regulations for fire protection (10 CFR 50.48), anticipated transients without scram (10 CFR 50.62), and station blackout (10 CFR 50.63).

The portion of the Reactor Recirculation System containing components subject to AMR includes the entire main Reactor Recirculation flow path, which begins at the suction nozzle to, and ends at the discharge nozzle of, each recirculation loop. Safety-related instrumentation piping and associated components connected to the recirculation loops are also subject to AMR. The components subject to an AMR for this system also include the NSR piping, fittings, and ~~equipment containing liquid in the Reactor Building~~ valves in instrumentation loops.

Comment [MRF1]: Change due to NSR re-scoping.

USAR Reference(s)

More information about the Reactor Recirculation System can be found in USAR Sections V.B.3 and XVI.D.2.1.

License Renewal Drawings *[List of dwgs. in the LRA]*

Components in scope under 10 CFR 54.4(a)(1) and (3) requiring an AMR for the Reactor Recirculation System are highlighted on the following drawings:

Comment [MRF2]: Added for clarification.

Components Subject to an AMR

The component types requiring an AMR for the Reactor Recirculation System and their intended functions are shown in Table 2.3.1.A.4-1. The AMR results for these component types are provided in Table 3.1.2.A-4.

Table 2.3.1.A.4-1
NMP1 Reactor Recirculation System

Comment [MRF3]: Changes due to NSR re-scoping.

Component Type	Intended Functions
Closure Bolting	Pressure Boundary
Flow Elements	Pressure Boundary
~~NSR piping, fittings, and equipment~~	~~Prevent Failure from Affecting SR Equipment~~
Piping and Fittings	Pressure Boundary Leakage Boundary (Spatial) Structural Integrity (Attached)
Pumps	Pressure Boundary
Pump Seal Flanges	Pressure Boundary
Valves	Pressure Boundary Leakage Boundary (Spatial) Structural Integrity (Attached)

Table 3.1.2.A-4 Reactor Vessel, Internals, and Reactor Coolant System
NMP1 Reactor Recirculation System – Summary of Aging Management Evaluation

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
Closure Bolting	PB	Carbon or Low Alloy Steel (Yield Strength ≥ 100 Ksi)	Closure Bolting for Non-Borated Water Systems with operating temperatures ≥212°F	~~Cracking~~ Cumulative Fatigue Damage	~~Fatigue Monitoring Program~~TLAA, evaluated in accordance with 10 CFR 54.21(c)	IV.C1.2-f	3.1.1.A-01	A
						IV.C1.3-g	3.1.1.A-01	A
				Loss of Material	~~ASME Section XI Inservice Inspection (Subsections IWB, IWC, IWD)~~ ~~Program~~Bolting Integrity Program	IV.C1.2-d	3.1.1.A-26	E
						IV.C1.3-e	3.1.1.A-26	E
				Loss of Preload	~~ASME Section XI Inservice Inspection (Subsections IWB, IWC, IWD)~~ ~~Program~~Bolting Integrity Program	IV.C1.2-e	3.1.1.A-26	E
						IV.C1.3-f	3.1.1.A-26	E
Flow Elements	PB	Wrought Austenitic Stainless Steel	Treated Water or Steam, temperature ≥482°F	Cracking	BWR Stress Corrosion Cracking Program Water Chemistry Control Program	IV.C1.1-f	3.1.1.A-29	D, 20
				Cumulative Fatigue Damage	~~Fatigue Monitoring Program~~TLAA, evaluated in accordance with 10 CFR 54.21(c)	IV.C1.1-h	3.1.1.A-01	C, 20

See Table 2.0-1 for definitions of Intended Functions, Table 3.0-1 for descriptions of Environments, and Table 3.0-2 for descriptions of Aging Effects.

Comment [C105]: NMP1L 1892, 18 AMR Audit Items

Comment [MRF106]: NMP1L xxxx, RAI 3.1.2-20

Comment [C107]: NMP1L 1919, RAI T3.1-3

Comment [C108]: NMP1L 1892, AMR Audit Items 7, 94 & 214

Comment [C109]: NMP1L 1919, RAI T3.1-3

DRAFT

Table 2.4.A.1-1
NMP1 Primary Containment Structure

Comment [MRF1]: Changes due to the re-scoping of structural components (RAI 2.4-1) and the response to RAI 3.5.1-20.

Component	Component Type in Table 3.5.2.A-1	Intended Functions
Beam Seats	Structural Steel (Carbon and Low Alloy Steel) in Air	Structural Support
Bearing Plates	Copper Alloy (Zinc < 15%) in Air	Structural Support
Concrete & Grout	Concrete in Air	Structural Support
Containment Penetrations (Electrical)	Structural Steel (Carbon and Low Alloy Steel) in Air	Pressure Boundary Structural Support Structural Pressure Barrier
Containment Penetrations (Instrument)	Structural Steel (Carbon and Low Alloy Steel) in Air	Pressure Boundary Structural Support Structural Pressure Barrier
	Structural Steel (Carbon and Low Alloy Steel) in Demineralized Untreated Water, Low Flow	Pressure Boundary Structural Support Structural Pressure Barrier
	Structural Steel (Wrought Austenitic Stainless Steel) in Air	Pressure Boundary Structural Support Structural Pressure Barrier
Containment Penetrations (Mechanical)	Structural Steel (Carbon and Low Alloy Steel) in Air	Pressure Boundary Structural Support Structural Pressure Barrier
	Structural Steel (Carbon and Low Alloy Steel) in Demineralized Untreated Water, Low Flow	Pressure Boundary Structural Support Structural Pressure Barrier
	Structural Steel (Wrought Austenitic Stainless Steel) in Air	Pressure Boundary Structural Support Structural Pressure Barrier
Downcomer Tie Straps	Fasteners (High Strength Carbon and Low Alloy Steel) in Demineralized Untreated Water, Low Flow	Structural Support
	Structural Steel (Carbon and Low Alloy Steel) in Demineralized Untreated Water, Low Flow	Structural Support
Drywell	Structural Steel (Carbon and Low Alloy Steel) in Air	HELB Shielding Missile Barrier Pressure Boundary Structural Pressure Barrier Shielding Shelter/Protection Structural Support

Component	Component Type In Table 3.5.2.A-1	Intended Functions
Drywell Equipment Hatch	Equipment Hatches	Shielding Structural Pressure Barrier Shelter/Protection
Drywell Escape Airlock	Airlocks	Shielding Structural Pressure Barrier Shelter/Protection
Drywell Floor	Concrete in Air	Shielding Structural Pressure Barrier Shelter/Protection Structural Support NSR Structural Support
Drywell Floor Seal	Seals and Gaskets	Structural Pressure Barrier
Drywell Head	Equipment Hatches	Shielding Structural Pressure Barrier Shelter/Protection
Drywell Head Closure Bolts	Fasteners (Wrought Austenitic Stainless Steel) in Air	Structural Support Structural Pressure Barrier
Drywell Head Manway	Equipment Hatches	Shielding Structural Pressure Barrier Shelter/Protection
Drywell Jet Deflector	Structural Steel (Carbon and Low Alloy Steel) in Air	Direct Flow Shelter/Protection
	Structural Steel (Wrought Austenitic Stainless Steel) in Air	Direct Flow Shelter/Protection
Drywell Personnel Airlock	Airlocks	Shielding Structural Pressure Barrier Shelter/Protection
Drywell Ring Girder	Structural Steel (Carbon and Low Alloy Steel) in Air	Structural Support
Drywell Stabilizer Hatches	Equipment Hatches	Shielding Structural Pressure Barrier Shelter/Protection
Embedded Structural Plates	Structural Steel (Carbon and Low Alloy Steel) in Air	Structural Support
Expansion Joints (Mechanical)	Expansion Joints (Mechanical)	Pressure Boundary
Expansion/Grouted Anchors	Expansion/Grouted Anchors (Carbon and Low Alloy Steel) in Air	Structural Support
Moisture Barriers	Moisture Barrier	Structural Pressure Barrier Shelter/Protection
Primary Containment Bellows	Nickel-Based Alloys in Air, Cyclic Loading	Pressure Boundary Structural Support Structural Pressure Barrier
Primary Containment Sump	Concrete in Air	Direct Flow
Reactor Pedestal	Concrete in Air	Structural Support

Comment [MRF2]: RAI 3.5.1-20

Comment [MRF3]: RAI 3.5.1-20

Component	Component Type in Table 3.5.2.A-1	Intended Functions
Reactor Pedestal Anchor Bolts	Fasteners (Carbon and Low Alloy Steel) in Air	Structural Support
Reactor Shield Wall	Concrete in Air	Shielding Shelter/Protection Structural Support
Reactor Stabilizers	Structural Steel (Carbon and Low Alloy Steel) in Air	Structural Support
Refueling Seal Platform	Fasteners (Carbon and Low Alloy Steel) in Air	Structural Support
	Structural Steel (Carbon and Low Alloy Steel) in Air	Structural Support
Refueling Seal Platform Bellows	Structural Steel (Wrought Austenitic Stainless Steel) in Air, Cyclic Loading	Structural Pressure Barrier
Refueling Seal Platform Covers	Aluminum Alloy in Air	Shelter, Protection
Refueling Seals	Polymer in Treated Water	Structural Pressure Barrier
Seals and Gaskets	Seals and Gaskets	Structural Pressure Barrier
Structural Beams	Structural Steel (Carbon and Low Alloy Steel) in Air	Structural Support
Structural Columns	Structural Steel (Carbon and Low Alloy Steel) in Air	Shelter/Protection Structural Support
Structural Fasteners	Fasteners (Carbon and Low Alloy Steel) in Air	Structural Support
Structural Steel: Platforms, Stairways, Mezzanines	Structural Steel (Carbon and Low Alloy Steel) in Air	Structural Support
Torus	Structural Steel (Carbon and Low Alloy Steel) in Air	Pressure Boundary Structural Support Structural Pressure Barrier
Torus Access Manhole Fasteners	Fasteners (High Strength Carbon and Low Alloy Steel) in Air	Structural Support
Torus Access Manholes	Equipment Hatches	Shielding Structural Pressure Barrier Shelter/Protection
Vacuum Breaker Small Bore Piping	Piping (Mechanical)	Pressure Boundary
Vacuum Relief Piping	Piping (Mechanical)	Pressure Boundary
Vacuum Relief Valves	Valves (Mechanical)	Pressure Boundary
Vent Header Deflector	Structural Steel (Carbon and Low Alloy Steel) in Air	Direct Flow Shelter/Protection
Vent Header Supports	Structural Steel (Carbon and Low Alloy Steel) in Air	Structural Support
	Structural Steel (Carbon and Low Alloy Steel) in Demineralized Untreated Water, Low Flow	Structural Support

Comment [MRF4]: RAI 3.5.1-20

Component	Component Type in Table 3.5.2.A-1	Intended Functions
	Structural Steel (Wrought Austenitic Stainless Steel) in Air	Structural Support
	Structural Steel (Wrought Austenitic Stainless Steel) in Demineralized Untreated Water, Low Flow	Structural Support

~~Component Type~~	~~Intended Functions~~
~~Airlocks~~	~~Pressure Boundary~~
~~Concrete in Air~~	~~Structural/Functional Support~~ ~~Structural Support for NSR~~
~~Equipment Hatches (including stabilizers)~~	~~Pressure Boundary~~
~~Expansion Joints (Mechanical)~~	~~Pressure Boundary~~
~~Expansion/Grouted Anchors (Carbon and Low Alloy Steel) in Air~~	~~Structural/Functional Support~~
~~Fasteners (Carbon and Low Alloy Steel) in Air~~	~~Structural/Functional Support~~ ~~Structural Support for NSR~~
~~Fasteners (High Strength Carbon and Low Alloy Steel) in Air~~	~~Structural/Functional Support~~
~~Fasteners (High Strength Carbon and Low Alloy Steel) in Demineralized Untreated Water, Low Flow~~	~~Structural/Functional Support~~
~~Piping (Mechanical)~~	~~Pressure Boundary~~
~~Polymer in Air~~	~~Pressure Boundary~~ ~~Shelter/Protection~~
~~Structural Steel (Carbon and Low Alloy Steel) in Air~~	~~Missile Barrier~~ ~~Pressure Boundary~~ ~~Shelter/Protection~~ ~~Structural/Functional Support~~ ~~Structural Support for NSR~~
~~Structural Steel (Carbon and Low Alloy Steel) in Demineralized Untreated Water, Low Flow~~	~~Fission Product Barrier~~ ~~Pressure Boundary~~ ~~Structural/Functional Support~~
~~Structural Steel (Wrought Austenitic Stainless Steel) in Air~~	~~Pressure Boundary~~ ~~Structural/Functional Support~~
~~Structural Steel (Wrought Austenitic Stainless Steel) in Demineralized Untreated Water, Low Flow~~	~~Structural/Functional Support~~
~~Valves (Mechanical)~~	~~Pressure Boundary~~

A1.1.27 NON-SEGREGATED BUS INSPECTION PROGRAM

The Non-Segregated Bus Inspection Program is ~~a new~~an existing plant-specific program that manages aging effects for components and materials internal to the non-segregated bus ducts that connect the reserve auxiliary transformers to the 4160V buses required for the recovery of offsite power following a Station Blackout (SBO) event. These normally-energized components are not subject to the environmental qualification requirements of 10 CFR 50.49, but can be affected by elevated temperatures prior to the end of the period of extended operation. Program activities include visual inspections of internal portions of the bus ducts to detect cracks, corrosion, debris, dust, and moisture; visual inspections of the bus insulating system to detect embrittlement, cracking, melting, swelling, and discoloration; visual inspections of bus supports (insulators) to detect cracking and lack of structural integrity; and ~~a torque test or~~ a resistance test of a sample of accessible bolted connections. The program considers the technical information and guidance provided in applicable industry publications.

Comment [C1]: NMP1L 1912, RAI 3.6.2.C-6

Comment [c2]: At the May 16, 2005 NRC/NEI conference, the staff yielded on the issue of retorquing the bolted connections.

Analytical trending will not be included in this activity because ability to trend inspection results is limited.~~the parameters inspected are not readily quantifiable in an appropriate form~~. This is an exception to the "Monitoring and Trending" element in Appendix A.1.2.3.5 to NUREG-1800. This program will be implemented prior to the period of extended operation.

Comment [c3]: Text revised to be consistent with the Draft Rev 1 of the GALL.

A1.1.28 ONE-TIME INSPECTION PROGRAM

The One-Time Inspection Program is a new program that manages aging effects with potentially long incubation periods for susceptible components WSLR. Program activities include visual, volumetric, and other established inspection techniques consistent with industry practice to provide a means of verifying that an aging effect is either (1) not occurring, or (2) progressing so slowly that it has a negligible effect on the intended function of the structure or component. The program also provides measures for verifying the effectiveness of existing aging management programs. This program is a new program that will be implemented prior to the period of extended operation.

A1.1.29 OPEN-CYCLE COOLING WATER SYSTEM PROGRAM

The Open-Cycle Cooling Water System Program manages aging of components exposed to raw, untreated (e.g., service) water. This includes those portions of the Service Water (SW) system associated with the

A2.1.27 NON-SEGREGATED BUS INSPECTION PROGRAM

The Non-Segregated Bus Inspection Program is ~~a new~~an existing plant-specific program that manages aging effects for components and materials internal to the non-segregated bus ducts that connect the reserve auxiliary transformers to the 4160V buses required for the recovery of offsite power following a Station Blackout (SBO) event. These normally-energized components are not subject to the environmental qualification requirements of 10 CFR 50.49, but can be affected by elevated temperatures prior to the end of the period of extended operation. Program activities include visual inspections of internal portions of the bus ducts to detect cracks, corrosion, debris, dust, and moisture; visual inspections of the bus insulating system to detect embrittlement, cracking, melting, swelling, and discoloration; visual inspections of bus supports (insulators) to detect cracking and lack of structural integrity; and ~~a torque test or~~ a resistance test of a sample of accessible bolted connections. The program considers the technical information and guidance provided in applicable industry publications.

Comment [C1]: NMP1L 1912, RAI 3.6.2.C-6

Comment [c2]: At the May 16, 2005 NRC/NEI conference, the staff yielded on the issue of retorquing the bolted connections.

Analytical trending will not be included in this activity because the ~~parameters inspected are not~~ ability to trend inspection results is limited.~~readily quantifiable in an appropriate form~~. This is an exception to the "Monitoring and Trending" element in Appendix A.1.2.3.5 to NUREG-1800. This program will be implemented prior to the period of extended operation.

Comment [c3]: Text revised to be consistent with the Draft Rev 1 of the GALL.

A2.1.28 ONE-TIME INSPECTION PROGRAM

The One-Time Inspection Program is a new program that manages aging effects with potentially long incubation periods for susceptible components WSLR. Program activities include visual, volumetric, and other established inspection techniques consistent with industry practice to provide a means of verifying that an aging effect is either (1) not occurring, or (2) progressing so slowly that it has a negligible effect on the intended function of the structure or component. The program also provides measures for verifying the effectiveness of existing aging management programs. This program is a new program that will be implemented prior to the period of extended operation.

B2.1.34 NON-SEGREGATED BUS INSPECTION PROGRAM

The Non-Segregated Bus Inspection Program is an ~~new~~ existing plant-specific program that ~~will~~ consists of the appropriate ten elements described in Appendix A of NUREG-1800 (Reference 1), with exceptions, yet consistent with the latest industry and regulatory guidance. This program inspects components and materials internal to the non-segregated bus ducts that connect the reserve auxiliary transformers to the 4160V buses required for the recovery of offsite power to both units following a Station Blackout (SBO) event. They are normally energized, and therefore, the bus duct insulation material will experience temperature rise due to energization, which may cause age-related degradation during the extended period of operation. This inspection program considers the technical information and guidance provided in References 20, 21, 22, ~~and~~ 23, and the latest industry and regulatory information on bus duct aging management. This program will be implemented prior to the period of extended operation.

Comment [c1]: The bus ducts are currently inspected under S-EPM-GEN-700, Rev. 1

Comment [c2]: This program incorporates the Draft Revision 1 of the GALL and the results of the May 16, 2005 NEI/NRC meeting. The GALL program does not include all of the elements of NUREG-1800 (LR-SRP), so an exception is required.

Comment [c3]: The program incorporates the Draft Revision 1 of the GALL and the results of the May 16, 2005 NEI/NRC meeting.

Aging Management Program Elements

The key elements of aging management activities, which are used in the Non-Segregated Bus Inspection Program, are described below. The results of an evaluation of each key element against the appropriate ten elements described in Appendix A of NUREG-1800 and the latest industry and regulatory guidance are provided below.

Comment [c4]: The program incorporates the Draft Revision 1 of the GALL and the results of the May 16, 2005 NEI/NRC meeting.

Scope of Program

This program applies to the bus ducts within the scope of license renewal: i.e., those non-segregated bus ducts that connect the reserve auxiliary transformers to the 4160V buses required for the recovery of offsite power to both units following an SBO event.

Preventive Actions

This is an inspection program and no actions are taken as part of this program to prevent or mitigate aging degradation.

Parameters Monitored/Inspected

A sample of accessible bolted connections will be check for proper connection resistance using a low range ohmmeter. ~~A sample of accessible bolted connections (bus joints and ending devices) will be checked for proper torque, or the resistance of bolted joints will be checked using a micro-ohm meter of sufficient current capacity that is~~

Comment [c5]: Text was revised to be consistent with the Draft Rev. 1 of GALL.

DRAFT

~~suitable for checking bus bar connections.~~ This program will ~~also~~ inspect the internal portions of accessible bus ducts for cracks, corrosion, foreign debris, dust buildup, and ~~moisture~~ water intrusion. The bus insulation system ~~will be~~ is inspected for signs of embrittlement, cracking, melting, swelling, or discoloration, which may indicate overheating or age-related degradation. The internal bus supports (insulators) will be inspected for structural integrity and cracking.

Comment [c6]: At the May 16 NEI/NRC meeting, the staff concurred that there should be no retorquing requirement.

Comment [c7]: Editorial.

Comment [c8]: Revised to be consistent with the Draft Rev. 1 of GALL.

Detection of Aging Effects

Visual inspection of internal portions of bus ducts detects cracks, corrosion, debris, dust, and moisture. Visual inspection of the bus insulating system detects embrittlement, cracking, melting, swelling, and discoloration. Visual inspection of bus supports (insulators) detects cracking and lack of structural integrity. Internal portions of bus ducts, the bus insulation system, and the bus supports (insulators) are visually inspected ~~at least once~~nominally every ~~10~~ 6 years.

Comment [c9]: Ref: PMST. It is intended to aleviate NRC concerns expressed at the May 16, 2005 NEI that the 10 year visual inspection interval is to long.

~~A~~The ~~torque test or a~~ resistance test of a sample of accessible bolted connections ~~is~~ will be performed ~~at least once~~nominally every ~~10~~ 6 years. ~~This~~An ~~program~~ initial inspection will be completed before the end of the initial 40-year license term ~~and every 10 years thereafter~~. This is an adequate period to identify failures of the bus ducts since experience has shown that aging degradation is a slow process. A nominal ~~6~~10-year inspection frequency will provide ~~two~~ up to three data points during a 20-year period, which can be used to characterize the degradation rate.

Comment [c11]: At the May 16, 2005 NEI/NRC meeting, the staff concurred that there should be no retorquing requirement. This will be consistent with the GALL, revision 1.

If degradation is found in any connections, as indicated by either increased resistance or visual anomalies, the inspections will be expanded to determine the extent of the condition.

Comment [c10]: Inserted to address a commitment in Dresden/Quads RAI B.2.2-1

Monitoring and Trending

Monitoring and trending ~~will~~ are not ~~be~~ used for this program. See "Exceptions to NUREG-1800," below.

Acceptance Criteria

Bolted connections must meet the ~~manufacturer's minimum torque specifications, or the~~ low resistance ~~of bolted joints must meet required specifications~~appropriate for the application. Bus ducts are to be free from unacceptable, visual indications of ~~any~~ surface anomalies that suggest that conductor insulation degradation exists. An additional acceptance ~~criterion~~ criteria includes no indication of unacceptable corrosion, cracking, foreign debris, excessive dust buildup, or moisture intrusion. Any

Comment [c12]: At the May 16, 2005 NEI/NRC meeting, the staff concurred that there should be no retorquing requirement. This will be consistent with the GALL, revision 1.

Comment [c13]: Text revised to be consistent with the Draft Revision 1 of the GALL.

condition or situation that, if not corrected, could lead to a loss of intended function is considered unacceptable.

Corrective Actions

Corrective actions are documented using the DER process. The Quality Assurance Program Topical Report (Appendix B to Reference 12 and Appendix B to Reference 13) documents the NMPNS commitment to the corrective action criteria of 10 CFR 50, Appendix B (Reference 3). The NMPNS Corrective Action Program includes the identification and correction of conditions adverse to quality and the identification, cause determination, correction, and actions to minimize recurrence for significant conditions adverse to quality.

Confirmation Process

The Quality Assurance Program Topical Report (Appendix B to Reference 12 and Appendix B to Reference 13) documents the confirmation process for NMPNS under the corrective action criterion. At NMPNS, the confirmation process is implemented through Corrective Action Effectiveness Reviews and is performed for significant conditions adverse to quality and selected hardware related conditions adverse to quality. The Corrective Action Program includes, but is not limited to, safety-related, non-safety related and fire protection SSCs. Therefore, those SSCs required to be in-scope for License Renewal are addressed as part of the current Corrective Action Program.

Administrative Controls

The Non-Segregated Bus Inspection Program ~~will be~~is implemented through documents that are subject to administrative controls. The administrative controls for NMPNS are discussed in the plant's Conduct of Operations description (Section XIII in Reference 12 and Chapter 13 in Reference 13) and the Quality Assurance Program Topical Report (Appendix B to Reference 12 and Appendix B to Reference 13).

Operating Experience

~~The Non-Segregated Bus Inspection Program is a new program at NMPNS; therefore, no programmatic operating experience is available. As operating experience is obtained, lessons learned will be used to adjust this program as needed.~~Inspections of the bus ducts WSLR at NMPNS have not revealed any age related degradation that could result in a loss of intended function.

Comment [c14]: No DERs have been written on defects found while performing S-EPM-GEN-700

Exceptions to NUREG-1800

Program Elements Affected

- **Monitoring and Trending:**

~~Over a 20 year inspection period, some data may be available which will permit a subjective determination of degradation rates. However, proceduralized analytical trending will not be included in this activity because the parameters inspected are not readily quantifiable in an appropriate form.~~Trending actions are not included as part of this program because the ability to trend inspection results is limited by available data. This exception is consistent with most recent industry and regulatory guidance.

Comment [c15]: Monitoring and Trending are not required per the Draft Rev. 1 of the GALL.

Enhancements

~~None~~Existing site inspection procedures will be enhanced to include expanded visual and physical inspections of the bus ducts, their supports and insulation systems. A new procedure will be developed to perform low range resistance checks.

Comment [c16]: S-EPM-GEN-700 must be enhanced to include the visual inspection requirements of the GALL, Revision 1 (Draft).

Conclusion

There is reasonable assurance that aging effects will be managed by the implementation of the Non-Segregated Bus Inspection Program such that SSCs WSLR will continue to perform their intended functions consistent with the current licensing basis for the period of extended operation.

Summary

- Remain on target for submittal on July 15, 2005.
- Quality Submittal is highest objective.
- Review Action Items from meeting.