Constellation Energy
Nine Mile Point Nuclear Station

P.O. Box 63
Lycoming, NY 13093

December 1, 2005
NMP1L 2005

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

SUBJECT: Nine Mile Point Units 1 and 2
Docket Nos. 50-220 and 50-410
Facility Operating License Nos. DPR-63 and NPF-69

Amended License Renewal Application (ALRA) – Responses to NRC Audit Items (TAC Nos. MC3272 and MC3273)

Gentlemen:

By letter dated July 14, 2005, Nine Mile Point Nuclear Station, LLC (NMPNS) submitted an Amended License Renewal Application (ALRA) for the operating licenses of Nine Mile Point Units 1 and 2.

During the months of September and October 2005, the NRC conducted Generic Aging Lessons Learned (GALL) compliance audit activities at the station. During the audits a number of items were identified by the NRC which required resolution with NMPNS management. Satisfactory disposition for all identified items was achieved. Attachment 1 to this submittal provides a table of the NRC identified audit items and the NMPNS resolution. Attachment 2 provides a table of resultant ALRA changes. Attachment 3 provides a table of new and revised regulatory commitments.

If you have any questions about this submittal, please contact David Dellario, NMPNS License Renewal Project Manager, at (315) 349-7141.

Very truly yours,

James A. Spina
Vice President Nine Mile Point

JAS/MSL/sac

Process per PM
12/12/05

A107

STATE OF NEW YORK :
: TO WIT:
COUNTY OF OSWEGO :

I, James A. Spina, being duly sworn, state that I am Vice President Nine Mile Point, and that I am duly authorized to execute and file these responses on behalf of Nine Mile Point Nuclear Station, LLC. To the best of my knowledge and belief, the statements contained in this submittal are true and correct. To the extent that these statements are not based on my personal knowledge, they are based upon information provided by other Nine Mile Point employees and/or consultants. Such information has been reviewed in accordance with company practice and I believe it to be reliable.

James A. Spina
Vice President Nine Mile Point

Subscribed and sworn before me, a Notary Public in and for the State of New York and County of Oswego, this 1st day of December, 2005.

WITNESS my Hand and Notarial Seal:

TONYA L. JONES
Notary Public in the State of New York
Oswego County Reg. No. 01JO6083354
My Commission Expires 11/12/06

Notary Public

My Commission Expires: 11/12/2006
Date

Attachments:
1. NRC identified audit items and the NMPNS responses
2. ALRA changes
3. New and revised regulatory commitments

cc: Mr. S. J. Collins, NRC Regional Administrator, Region I
Mr. L. M. Cline, NRC Senior Resident Inspector
Mr. T. G. Colburn, Senior Project Manager, NRR
Mr. N. B. Le, License Renewal Project Manager, NRR
Mr. J. P. Spath, NYSERDA

ATTACHMENT 1 to NMP1L 2005

NMPNS License Renewal

NRC Audit: September 19 through 23 and October 24 through 26, 2005
Plant Aging Management Programs and Reviews

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-019	3.2.1.A-03-01A	Browne/Haws/	E Mail (9/12/0	Request Docume	9/12/2005	9/20/2005	CLOSED

LRA_Section T 3.3.2.A-16

NRC Issue

On page 3.3-170 of the ALRA, loss of material from the CS housing of blowers is managed using the PM Program. A copy of the implementing procedure is requested for the staff review during the audit.

NMP Response:

The relevant maintenance procedure is N1-MPM-GEN-551, it is included in the Program Basis Document (PBD) binders (Volume 3), and it will be available for NRC review. The procedure in question will require an enhancement, and descriptions of the necessary revisions are included in the PBD. In short, the existing procedure will be revised to include the necessary steps for an internal inspection to be completed prior to the period of extended operation. Subsequently, the periodicity for future inspection will be established based upon the as-found condition of the blower internals.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-020	**3.2.1.A-04-01A**	**Fallin, Mike**	**E Mail (9/12/0**	**Typo/Editorial**	**9/12/2005**	**9/23/2005**	**CLOSED**

LRA_Section **T 3.2.2.A-3**

NRC Issue

On page 3.2-60 of the ALRA, please confirm that 3.2.1.A-04 was intended (where 3.2.1.4-04 appears).

NMP Response:

This is a typo – the entry should be 3.2.1.A-04.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-035	3.2.2.B-04-01A	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	9/23/2005	CLOSED

LRA_Section T 3.2.2.B-4

NRC Issue

On page 3.2-84 of the ALRA, there are two blank lines, and another one on page 3.2-97. Please confirm that no aging effect requiring management for bolting in air has been omitted.

NMP Response:

This was a WORD issue when deleted lines from the "Road Map" version of the ALRA were printed for the clean ALRA. Where this happened, most such cases were caught and corrected. Some were missed. There is no AERM omitted. This can be seen by referring to the "Road Map" version of the ALRA.

Another similar situation in Section 3.2 is on P. 3.2-97.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-038	**3.3.1.A-05-01A**	**Fallin, Mike**	**E Mail (9/16/0**	**Typo/Editorial**	**9/17/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.3.2.A-4**

NRC Issue

On page 3.3-125 of the ALRA, two different lines for piping and fittings in air are identical in all respects except the AMP. Do these lines refer to two different components, or are both AMPs used to manage a single set of components?

NMP Response:

Both of these programs apply to the piping and fittings in question. Appendix J cannot be applied as an AMP without a program that is also performing inspections.

DE Scope

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-039	3.3.1.A-05-01A1	Brown, Chris	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.3.2.A-4

NRC Issue

On page 3.3-125 of the ALRA, two different lines for piping and fittings in air are identical in all respects except the AMP. Do these lines refer to two different components, or are both AMPs used to manage a single set of components?

NMP Response:

Both programs apply to the piping and fittings in question. Appendix J cannot be applied as an AMP without a program that is also performing inspections.

This NRC Issue is identical to NMP-AI-038 (3.3.1.A-05-01A1). Therefore, this issue is closed.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-040	3.3.1.A-05-01A2	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.3.2.A-14

NRC Issue

On page 3.3-155 of the ALRA, no note is assigned. Please clarify.

NMP Response:

For the GCI External Surfaces item, the last 3 columns should read, VII.I.1-b, 3.3.1.A-05, and F, respectively.

DE Scope

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-041	**3.3.1.A-05-02A**	**Fallin, Mike**	**E Mail (9/12/0**	**Clarification**	**9/12/2005**	**9/23/2005**	**CLOSED**

LRA_Section **T 3.3.2.A-17**

NRC Issue

On page 3.3-172 of the ALRA, please confirm that loss of material from carbon steel in air will be managed with the Systems Walkdown Program and no other AMPs.

NMP Response:

That is true with the exception of the Bolting Component Type. That is managed by the Bolting Integrity Program.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-047	**3.3.1.B-05-01A**	**Fallin, Mike**	**E Mail (9/12/0**	**Typo/Editorial**	**9/12/2005**	**9/23/2005**	**CLOSED**

LRA_Section **t 3.3.2.b-35**

NRC Issue

On page 3.3-300 of the ALRA, no note is assigned. Please clarify.

NMP Response:

This should be Note B.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-051	**3.3.1.B-17-01A**	**Fallin, Mike**	**E Mail (9/12/0**	**Typo/Editorial**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.3.2.B-37**

NRC Issue

On page 3.3-304 of the ALRA, GALL v2 item VII.C.1.1-a is cited but no Table 1 item is associated. Please clarify.

NMP Response:

This response is being revised from that supplied during the Audit. Where we have piping or components that are only wetted part of the time with low temperature water, like these roof drains, the most appropriate environment to use is "Air, Moisture or Wetting, temperature <140°F". For the cited line item, this is the environment that should have been applied. This line item will, therefore, be revised as follows:

The Environment column entry will be changed to "Air, Moisture or Wetting, temperature <140°F", the GALL Item column entry will be removed, and the Note will be changed to Note G.

DE Scope

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-057	3.3.2.A-07-01A	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	9/23/2005	CLOSED

LRA_Section T 3.3.2.A-7

NRC Issue

On page 3.3-136 of the ALRA, there is a blank line. Please confirm that no aging effect requiring management for heat exchangers has been omitted.

NMP Response:

This was a WORD issue when deleted lines from the "Road Map" version of the ALRA were printed for the clean ALRA. Where this happened, most such cases were caught and corrected. Some were missed. There is no AERM omitted. This can be seen by referring to the "Road Map" version of the ALRA.

Similar occurrences are located on PP. 3.3-117, -137, -166, -174, and -226.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-058	**3.3.2.A-14-01A**	**Fallin, Mike**	**E Mail (9/12/0**	**Typo/Editorial**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.3.2.A-14**

NRC Issue

On page 3.3-158 of the ALRA, no Table 1 item is assigned for tanks of CS in demin untreated water. Please clarify the basis for management of this MEA.

NMP Response:

Note D for the line item In question should be changed to Note G like the rest of the system. D was a typo.

DE Scope

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-059	3.3.2.A-14-02A	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	9/23/2005	CLOSED

LRA_Section T 3.3.2.A-14

NRC Issue

On page 3.3-160 of the ALRA, no Table 1 item or note is assigned for valves of CS with PB IF. Please clarify the basis for management of this MEA.

NMP Response:

Both of the line items without the Notes entries should be Note G.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-060	3.3.2.A-15-01A	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	9/23/2005	CLOSED

LRA_Section T 3.3.2.A-15

NRC Issue

On page 3.3-166 of the ALRA, there is a blank line. Please confirm that no aging effect requiring management for piping and fittings has been omitted.

NMP Response:

This was a WORD issue when deleted lines from the "Road Map" version of the ALRA were printed for the clean ALRA. Where this happened, most such cases were caught and corrected. Some were missed. There is no AERM omitted. This can be seen by referring to the "Road Map" version of the ALRA.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-062	**3.3.2.A-17-01A**	**Fallin, Mike**	**E Mail (9/12/0**	**Typo/Editorial**	**9/12/2005**	**9/23/2005**	**CLOSED**

LRA_Section **T 3.3.2.A-17**

NRC Issue

On page 3.3-174 of the ALRA, there is a blank line. Please confirm that no program for management of aging for heat exchangers has been omitted.

NMP Response:

This was a WORD issue when deleted lines from the "Road Map" version of the ALRA were printed for the clean ALRA. Where this happened, most such cases were caught and corrected. Some were missed. There is no AERM omitted. This can be seen by referring to the "Road Map" version of the ALRA.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-064	**3.3.2.B-14-01A**	**Fallin, Mike**	**E Mail (9/12/0**	**Typo/Error**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.3.2.B-14**

NRC Issue

On page 3.3-239 of the ALRA, there is no note on loss of material from piping and fittings wetted in low-temp air.

NMP Response:

This should be Note H.

DE Scope

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-066	3.3.2.B-20-01A	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	9/23/2005	CLOSED

LRA_Section T 3.3.2.B-20

NRC Issue

On page 3.3-250 of the ALRA, there is no note on loss of material from piping and fittings in air. Please confirm that no other AMP is needed. (Internal?)

NMP Response:

The line in question is a blank line that should have gone away when the changes shown in the "Road Map" version of the ALRA were incorporated. See the corresponding line in the ALRA "Road Map." The entries in that row are deleted in the "Road Map."

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-067	3.3.2.B-27-01A	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.3.2.B-27

NRC Issue

On page 3.3-276 and -277 of the ALRA, please confirm that all references to 3.1.1.B-01 are intended to be 3.3.1.B-01.

NMP Response:

The Table 1 Item entries of 3.1.1.B-01 on these two pages should, in fact, be 3.3.1.B-01. The associated GALL Items are correct.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-068	3.3.2.B-29-01A	Fallin, Mike	E Mail (9/12/0	Typo/Error	9/12/2005	9/23/2005	CLOSED

LRA_Section T 3.3.2.B-29

NRC Issue

On page 3.3-281 of the ALRA, there is a blank line external surfaces of glass or polymer in air. Please confirm that no aging effect requiring management applies.

NMP Response:

This line for Glass or Polymer in Air should have the entries of "None" in the AERM, AMP, and Notes columns of the table.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-069	3.3.2.B-29-02A	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.3.2.B-29

NRC Issue

On page 3.3-282 of the ALRA, there is no note for cracking of WASS HXs (with IF of HT/PB) in treated water managed by CCCW AMP.

NMP Response:

The Notes column should have an H.

DE Scope

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-070	**3.4.1.A-05-01A**	**Fallin, Mike**	**E Mail (9/12/0**	**Clarification**	**9/12/2005**	**9/23/2005**	**CLOSED**

LRA_Section **T 3.1.2.B-3**

NRC Issue

On page 3.1-91 and -106 of the ALRA, NMP2 components are associated with an item from the NMP1 summary table (3.4.1.A-05). Please clarify.

NMP Response:

This was a typo, the referenced Table 1 Items for these locations should be 3.4.1.B-05.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-076	**3.4.2.B-03-01A**	**Fallin, Mike**	**E Mail (9/12/0**	**Typo/Editorial**	**9/12/2005**	**9/23/2005**	**CLOSED**

LRA_Section **T 3.4.2.B-3**

NRC Issue

On page 3.4-63 of the ALRA, there is a blank line. Please confirm that there is no other GALL v2 component managed using this program.

NMP Response:

This was a WORD issue when deleted lines from the "Road Map" version of the ALRA were printed for the clean ALRA. Where this happened, most such cases were caught and corrected. Some were missed. There is no AERM omitted. This can be seen by referring to the "Road Map" version of the ALRA.

A similar occurrence is found on P. 3.4-46.

Additionally, in Section 3.5, similar occurrences are found on PP. 3.5-96 and -107.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-087	3.5.2.A-02-01A	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	9/23/2005	CLOSED

LRA_Section T 3.5.2.A-2

NRC Issue

On page 3.5-71, the term "pure aluminum alloy" is used. Please clarify.

NMP Response:

This was changed everywhere else in the ALRA but was missed for this line item. See Section 3.5.2.A.2. The Material was changed to Aluminum, and aluminum alloyed with manganese, magnesium, and magnesium plus silicone. It is intended that this material be used for aluminum alloys that are of extremely high aluminum content.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Admin/Editorial — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-178	B2.1.40-01-KC	Agarwal, Sures	Audit (11-18-	Technical Issue	11/18/200	11/18/200	CLOSED

LRA_Section B2.1.40

NRC Issue

On page B2-89 of the ALRA under Scope of Program, it is stated: "The program will include visual inspections of the entire structure, pole sounding and circumference measurements, below grade inspections, any necessary core boring, preservative application, and pesticide treatments." Under Preventive Actions on the same page it is stated: "The Wooden Power Pole Inspection Program is a condition monitoring program as described in Appendix A.1.1 of NUREG-1800. The program will provide for timely detection of loss of material and degradation, and physical damage and does not support preventive or mitigating actions." Explain how the application of preservative is not a preventive action and pesticide treatments are not mitigating actions.

NMP Response:

The application of preservatives and pesticide treatments will enhance the life of the poles by minimizing their deterioration; however; the License Renewal AMP is not based on these actions and does not take credit for them. The AMP is a condition monitoring program. The inspection frequency, repair, and/or replacement of the poles are based on the condition of the poles at the time of inspection.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Chang, Ken

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-179	**B2.1.40-02-KC**	**Agarwal, Sures**	**Audit (11-18-**	**Technical Issue**	**11/18/200**	**11/18/200**	**CLOSED**

LRA_Section **B2.1.40**

NRC Issue

On page B2-90 of the ALRA under Parameters Monitored/Inspected, it is stated: Excavations will be performed to a depth of approximately 18" to detect loss of material and/or material degradation or damage. Reference the specification and provide the value for the depth of in scope wooden power poles below grade. Also, explain the basis for the 18" below grade inspection depth.

NMP Response:

If poles are found to have ground level decay, they are excavated 12" to 18" below ground level (Reference: NUREG 1769 "Safety Evaluation Report Related to the License Renewal of Peach Bottom Atomic Power Station, Units 2 and 3, page 3-273) and inspected further. This depth is utilized since the most critical area of a buried pole in terms of rapid deterioration is 3" above and 12" to 18" below ground level (Reference: Manual entitled "Ground Line Inspection & Preservative Retreatment of Standing Wood Utility Poles" by James Pastoret, School of Forestry, Fisheries and Wildlife, College of Agriculture, University of Missouri- Columbia). Any such deterioration found would be documented in a Condition Report and repairs or pole replacement would be performed as necessary.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Chang, Ken

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-180	B2.1.40-03-KC	Agarwal, Sures	Audit (11-18-	Technical Issue	11/18/200	11/18/200	CLOSED

LRA_Section B2.1.40

NRC Issue

On page B2-90 of the ALRA under Detection of Aging Effects, it is stated: "This frequency is based on industry experience, which has shown that although the typical wooden pole life is expected to be 30-40 years, routine inspection and treatment can extend this life by 50% or more." Explain how the term treatment is not a preventive action.

NMP Response:

Even though, based on industry research and experience, the treatment of poles does extend their life and NMP does treat their poles, the NMP2 AMP does not take credit for this treatment. It is based on the condition of the poles at the time of inspection and not on the preventive action of the treatment.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Chang, Ken

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-181	B2.1.40-04-KC	Agarwal, Sures	Audit (11/18/	Technical Issue	11/18/200	11/18/200	CLOSED

LRA_Section B2.1.40

NRC Issue

A review of the internet shows that there are all kinds of information on wooden pole inspection and acceptance criteria. For Detection of Aging Effects on page B2-90 of the ALRA, explain if a search has been performed on ASTM, EPRI, and wood product codes and standards to determine if there are any codes and standards which could be referenced as to inspection techniques and frequency needed to detect aging effects of wooden poles.

NMP Response:

EPRI Report TR-108212-CD entitled, "Assessment and Inspection Methods (AIM) – Methodology, Inspection Methodologies for Overhead Transmission Lines" and industry experience were used as guidance in the development of the NMP2 Wooden Power Pole Inspection Program.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Chang, Ken

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-182	B2.1.40-05-KC	Agarwal, Sures	Audit (11/18/	Technical Issue	11/18/200	11/18/200	CLOSED

LRA_Section B2.1.40

NRC Issue

Explain if the wooden power poles in the scope of license renewal have ever been inspected since initial installation and the results of those inspections if performed.

NMP Response:

The NMP2 wooden power poles within scope of License Renewal were inspected in 1997 and 2004. The poles were found to be in excellent condition. No deterioration was observed.

Chang, Ken

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-175		**Inch, George**	**Phone (10/20**	**Technical Issue**	**10/21/200**	**10/26/200**	**CLOSED**

LRA_Section **3.1.2.A.1**

NRC Issue

This is the continuation of Audit Item NMP-AI-136. That NRC Issue asked for information relative to the Feedwater Nozzle and CRDRL Nozzle Programs and their applicability to the aging management of the thermal sleeves associated with those nozzles. The NMP-AI-136 response addresses the Feedwater Nozzle thermal sleeves. This audit item will address the aging management of the CRDRL Nozzle thermal sleeves.

NMP Response:

The inspections of the CRDRL nozzle and safe-ends in 1978 identified IGSCC cracking of the safe-end material, but did not identify fatigue-related cracking. The CRDRL safe-end and the thermal sleeve were replaced in 1978 with design changes to improve resistance to both IGSCC and fatigue. The replacement thermal sleeve material is IGSCC resistant low carbon Type 316L stainless steel material. The thermal sleeve is welded to the safe-end with low carbon Type 308L weld filler. To reduce the probability of fatigue, the thermal sleeve pipe protrudes 7 inches out from the flow shield which promotes mixing away from the vessel wall thus preventing thermal cycling at the vessel wall and at the flow shield.

As a result of industry operating experience from 2002 and 2003, NMP completed detailed thermal fatigue assessments and augmented inspections of the safe-end, the thermal sleeve attachment weld to the safe-end, and the thermal sleeve weld to the flow shield. These inspections were performed in 2004 and 2005. The inspections to date have identified no IGSCC or thermal fatigue related cracking. Because the 2003 OE identified cracking of the thermal shield flow baffle on the thermal shield, additional enhanced visual inspections (EVT-1) of the thermal shield to flow shield weld from the vessel ID are planned for 2007 at a 10 year frequency thereafter consistent with the ISI inspection interval. This EVT-1 examination of the CRDRL thermal sleeve flow shield weld visible from the vessel ID during each ISI interval is consistent with the frequency that has been adopted for the feedwater nozzle surrogate weld location on the feedwater end brackets.

A one-time UT of the CRD return line safe-end base metal in 2004 was performed under the NMP augmented ISI program, 26 years of operation after the 1978 replacement (3 outages prior to the license renewal term). This inspection identified no IGSCC or thermal fatigue cracking of the safe-end location. The inspection was a manual PDI qualified inspection and the PDI mockup included the thermal sleeve attachment weld to the safe-end. The exam records note the presence of the thermal sleeve attachment weld. This exam is considered sufficient to identify if significant circumferential IGSCC cracking of the thermal sleeve exists at the thermal sleeve attachment weld; however, consistent with the surrogate weld inspection methodology being employed for the feedwater nozzle thermal sleeve, the EVT-1 inspection of the thermal sleeve flow shield weld will also be used as a surrogate weld inspection location for the thermal sleeve to safe-end attachment weld.

In addition to the inspections, temperature monitoring for thermal cycling was performed to confirm that the CRD return flow rates were sufficient at NMP1 to ensure that no unstable thermal cycling due to hot reactor water return flow is occurring at NMP1. The testing and analyses have established the minimum CRD return flow required to ensure stable return line conditions and confirmed that no reverse flow exists.

The overall conclusion is that the safe-end and thermal sleeve replacement with IGSCC-resistant materials and the one time UT of the thermal sleeve attachment weld after 26 years establishes that the thermal sleeve attachment weld is not a high risk IGSCC location. In addition, the thermal monitoring of this location and the inspection after 26 years of operation has also established that no high cycle thermal fatigue conditions exist at this location that could create high thermal cycle fatigue-related cracking concerns.

Conclusion:

The existing analyses and one time inspections performed in 2004-2005 are adequate to detect potential cracking of the CRDRL Nozzle thermal sleeve to safe-end attachment weld from either IGSCC or fatigue. Even though IGSCC is considered a low probability for this location due to the materials of construction, the BWRVIP program will include an enhancement starting in 2007. An EVT-1 inspection of the thermal shield to flow shield weld from the vessel ID will be performed at that time and at a 10 year frequency thereafter consistent with the ISI inspection interval. In addition to identifying the condition of the flow shield weld, this EVT-1 inspection of the thermal sleeve flow shield weld will also be used as a surrogate weld inspection location for the thermal sleeve to safe-end attachment weld.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-177		**Fletcher/Sensk**	**Audit (10-26-**	**Request Informa**	**10/26/200**		**CLOSED**

LRA_Section **B2.1.11**

NRC Issue

In the comparison of the 1/05 to 9/05 R1 versions of the GALL for the Closed-Cycle Cooling Water Program, it was identified under the Detection of Aging Effects attribute that monitoring of component performance through chemistry data trends was added. Please provide NMP's position with respect to the use of chemistry data trends for monitoring component performance.

NMP Response:

Based upon a review of the chemistry data being taken for the closed cycle systems, trending of the data would provide beneficial information to assist in managing the aging of affected components. Therefore, NMP will begin trending of the appropriate chemistry data prior to the period of extended operation.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-165		**Anderson, E**	**Audit (9-22-0**	**Change**	**9/22/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.1**

NRC Issue

LRA needs to remove references to Relief Request and Code Case N-578-1:

(1) Change Appendix A, Items A1.1.4 by removing all references to Relief Request and Code Case N-578-1. Add statement updating ISI Program to meet 10 CFR 50.55a and 10 CFR 54.

(2) Change Appendix A, Items A2.1.5 by removing all references to Relief Request and Code Case N-578-1. statement updating ISI Program to meet 10 CFR 50.55a and 10 CFR 54.

(3) Change Appendix B, Items B2.1.1 by removing all references to Relief Request and Code Case N-578-1. statement updating ISI Program to meet 10 CFR 50.55a and 10 CFR 54.

NMP Response:

NMP LRA will be revised to remove references to Relief Request and Code Case N-578-1 as described below.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-174		**Inch, George**	**Audit (9-23-0**	**Request Informa**	**9/22/2005**	**10/26/200**	**CLOSED**

LRA_Section 4.3

NRC Issue

During the NRC License Renewal (LR) Consistency With GALL (CWG) Audit for Nine Mile Point (NMP) Units 1 and 2, additional information was requested with regard to the implementation of the Fatigue Monitoring Program. Specifically, more details were requested regarding the applicability of NUREG/CR-6260 to NMP1. NUREG/CR-6260 evaluated two plant types considered representative of an 'older and newer' BWR representative plant types. For NMP2, the 'newer' plant is directly applicable and no further screening is required. The 'older' BWR plant in the NUREG is a BWR-4 and the applicability to NMP1, which is a BWR-2, should be addressed. The audit team also requested review of the FatiguePro implementation calculations and asked if NMP1 would be using FatiguePro to evaluate environment fatigue. In summary, the audit team noted that additional details regarding the NMP implementation of FatiguePro are required for the NRC auditors to complete their evaluations.

NMP Response:

The following information was discussed:

An integral part of the NMP Fatigue Monitoring Program is to determine the critical locations, monitor them and implement any necessary corrective actions. The NRC has identified that NUREG/CR-6260 is an acceptable method for determining the critical locations for BWRs. NMP had completed a detailed review of NUREG/CR-6260 as part of the FatiguePro assessment that is documented in the Recommendation Report that NMP has completed. This report, NER-1S-035, was provided to the audit team. This report documents the technical review of the existing 40 year term fatigue assessments and provides recommendations on to upgrade the Fatigue Monitoring Program for the period of extended operation.

The NMP implementation of the FatiguePro software includes projections of the cycles being assumed for the 60 year life time of the plants in order to define the limiting fatigue usage locations. These projections are being completed in conjunction with the implementation of the FatiguePro software. The implementation plan for NMP1 includes a review of the limiting reactor vessel fatigue locations and the completion of the environment fatigue calculations.

Conclusion:
The Audit team was provided the NER-1S-035 report and a sample of the NMP1 fatigue calculations for the vessel limiting locations. The audit team noted that the type of detail discussed should provide acceptable bases to resolve the fatigue monitoring program open item.

Resolution Plan:
The audit team requested that they be provided the detailed implementation calculations discussed above for review. The schedule for completing these calculations and evaluations are defined in an implementation plan for the NMP Fatigue Monitoring Program. This implementation plan includes estimates of the 60 year cycles and the projected CUFs for the limiting fatigue usage locations. These projections, in combination with the FatiguePro baseline usage, defines the limiting locations. The implementation plan includes the limiting environmental fatigue usage calculations for the piping and vessel fatigue locations. This plan has completion dates through January 2006 with a majority of the evaluations and calculations with completion dates through November and early December 2005. The completed evaluations and calculations will be available at NMP for NRC staff review.

The detailed environment calculations for NMP2 are not planned as part of the initial FatiguePro implementation. The initial NMP2 implementation will include a projection of the 60 year cycles and a projection of the CUFs for the limiting locations. The initial implementation for NMP2 includes an assessment of the NMP2 event code 9 cycles that has currently reached the original 40 year projected number of cycles. The assessment of the actual fatigue usage for this location is planned as part of the implementation for NMP2. The results of the baseline and cycle usage factors to be used in FatiguePro are under evaluation at this time. The draft implementation calculations for this location should be available for review after December 9, 2005.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-176		Mazzaferro, Pet	Audit (10-24-	Technical Issue	10/24/200	11/4/2005	CLOSED

LRA_Section 3.1.2.A.1

NRC Issue

What is the NMP position on the CRD Stub Tube inspection during the PEO?

NMP Response:

This issue has been transferred from an audit question to a formal RAI. Therefore, no further action required in audit space.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-001	3.1.1.A-01-01H	Poehler	E Mail (9/12/0	Request Informa	9/12/2005	10/26/200	CLOSED

LRA_Section 3.1.2.A

NRC Issue

On page 3.1-51, fatigue damage of CRD assemblies (including drive mechanism and housing) is to be managed through TLAA. On page B2.25 of the ALRA, the applicant states that there were no TLAA issues for BWRVIP-47 of NMP1. Please confirm and provide relevant information to explain how the specified components are managed for NMP1.

(A TLAA should not be credited as an AMP unless the subject component meets the 54.21(c) criteria for a TLAA.)

NMP Response:

The only RVI components for NMP1 that have calculations or analyses meeting the criteria for a TLAA are the core shroud tie rod assemblies, the clamps and the CRD assemblies (includes drive mechanism and housing). The tie rod assemblies and clamps are repairs for horizontal and vertical core shroud welds which had ASME III-type stress and fatigue analyses performed during the design process. The pressure boundary portion of the CRD assemblies was evaluated for fatigue. A cumulative usage factor was determined for the CRD penetration, which included the stub tube, CRD housing, and the stub tube-to-vessel weld and housing-to-stub tube weld. AMR of the stub tube is addressed in Table 3.1.2.A-1.

NUREG-1801 indicates cumulative fatigue damage is an aging effect for certain RVI components as indicated by GALL Table IV.B1. Cumulative fatigue damage was identified as an aging effect consistent with the GALL in Table 3.1.2.A-2 of the ALRA. There are no calculations or analyses for most NMP1 RVI components meeting the criteria for a TLAA. However, TLAA, evaluated in accordance with 10 CFR 54.21(c) was identified as the AMP for all components with cumulative fatigue damage in Table 3.1.2.A-2 for the following reason: Certain NMP2 RVI components were analyzed for fatigue and CUF's for these components are part of the current licensing basis for NMP2. As stated in LRA Section 4.3.5, the fatigue analyses for these components will be revised or reevaluated for the period of extended operation. If the reevaluation indicates a problem with an NMP2 location, the corresponding NMP1 location will be evaluated for fatigue.

While NMPNS believes this approach is technically sound, because the 6 TLAA criteria are not met for all the NMP1 RVI components crediting TLAA in the Aging Management Program column, Table 3.1.2.A-2 will be revised. For RVI components where there is no analysis meeting the TLAA criteria, the Aging Management Program column of Table 3.1.2.A-2 will be modified to replace TLAA, evaluated in accordance with 10 CFR 54.21(c), with "None." The justification for no aging management program for these items is provided by generic evaluations of aging effects contained in the BWR Vessel and Internals Program Inspection & Evaluation Guidelines, which determined cumulative fatigue damage is not an aging effect requiring management of most internals components. The BWRVIP guidelines do require an evaluation of fatigue when there is a current license basis TLAA calculation that requires reevaluation for the period of extended operation, which is addressed by certain Applicant Action Items in the SERs for the individual BWRVIP guidelines. A plant specific note referencing the relevant BWRVIP Inspection and Evaluation guideline or other basis for not managing fatigue will be added to Table 3.1.2.A-2 for each component with "none" in the AMP column for the aging effect cumulative fatigue damage, or where the TLAA is applicable only to a subset of the component type.

LRA Changes

For RVI components where there is no analysis meeting the TLAA criteria, the Aging Management Program column of Table 3.1.2.A-2 will be modified to replace TLAA, evaluated in accordance with 10 CFR 54.21(c), with "None." A plant specific note referencing the relevant BWRVIP Inspection and Evaluation guideline or other basis for not managing fatigue will be added to Table 3.1.2.A-2 for each component with "None" in the AMP column for the aging effect cumulative fatigue damage, or where the TLAA is applicable only to a subset of the component type. The line item for the cumulative fatigue damage aging effect will be removed for the steam dryer assemblies since this component is not in the GALL and is not covered by GALL Item IV.B.1.1-c.

Table 3.1.1.A, page 3.1-20: Revise the Discussion column to delete components no longer credited with having a TLAA as the AMP.

Table 3.1.2.A-2 page 3.1-51 - NMP1 Core Plate and Bolts

Change AMP to "none"

Add Note: No fatigue analysis exists in the CLB for NMP1. BWRVIP-25A LR appendix and NRC final SE for LR compliance does not identify cumulative fatigue damage as a significant aging effect or as a generic TLAA for the core plate or bolts.

Table 3.1.2.A-2 page 3.1-52 -NMP1 Core shroud head bolts and collars (Nickel Based Alloys and Wrought Austenitic Stainless Steel)

Change AMP to "none"

Add Note: No fatigue analysis exists in the CLB for NMP1.

Table 3.1.2.A-2 page 3.1-53 - NMP1 Core shroud support structures (Nickel Based Alloys and Wrought Austenitic Stainless Steel)

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

Add Note: TLAA for core shroud repair clamps, and support welds. Core shroud vessel attachment weld fatigue TLAA addressed as part of the vessel. No TLAA applicable to other components since no fatigue analysis exists in the CLB. The BWRVIP-76 and BWRVIP-38 LR appendixes and NRC final SEs for LR compliance do not identify fatigue as a significant aging effect or as a generic TLAA.

Table 3.1.2.A-2 page 3.1-54 - NMP1 Core spray line and spargers

Change AMP to "none"

Add Note: No TLAA applicable since no fatigue analysis exists in the CLB. The BWRVIP-18A LR appendix and NRC final SE for LR compliance does not identify fatigue as a significant aging effect or as a generic TLAA.

Table 3.1.2.A-2 page 3.1-55 - NMP1 Steam Dryer Assembly

The aging effect for cumulative fatigue damage of the steam dryer assemblies will be deleted.

Add Note to Cracking line item: No TLAA applicable since no fatigue analysis exists in the CLB. The steam dryer assembly is an NSR component. The assembly may be subject to high cycle flow induced vibration and potential fatigue cracking. The BWRVIP program will be enhanced to address detection of fatigue cracking as defined in BWRVIP-139.

Table 3.1.2.A-2 page 3.1-56 - NMP1 Top Guide

Change AMP to "None"

Add Note: No TLAA applicable since no fatigue analysis exists in the CLB. The BWRVIP-26A LR appendix and NRC final SE for LR compliance does not identify fatigue as a significant aging effect or as a generic TLAA.

Similar revisions will be made to the NMP2 RVI components as well (Section 3.1.2.B).

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-002	**3.1.1.A-01-02H**	***Poehler***	**E Mail (9/12/0**	**Request Informa**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **3.1.2.A**

NRC Issue

On page 3.1-52 of the ALRA, fatigue damages of core shroud head bolts and collars are to be managed through TLAA. Please confirm that NMP1 TLAA for the specified component type does exist.

(A TLAA should not be credited as an AMP unless the subject component meets the 54.21(c) criteria for a TLAA.)

NMP Response:

See Resposne to NMP-AI-001 (NRC 3.1.1.A-01-01H) including Actions and LRA changes.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-003	3.1.1.A-01-03H	Poehler	E Mail (9/12/0	Request Informa	9/12/2005	10/26/200	CLOSED

LRA_Section 3.1.2.A

NRC Issue

On page 3.1-55 of the ALRA, cumulative fatigue damage of steam dryer assembly is to be managed through TLAA. The steam dryer assembly component is NSR. Please confirm that NMP1 TLAA for the specified component type does exist.

(A TLAA should not be credited as an AMP unless the subject component meets the 54.21(c) criteria for a TLAA.)

NMP Response:

See Resposne to NMP-AI-001 (NRC 3.1.1.A-01-01H) including Actions and LRA changes.

Hsu, Robert — **Closed and Accepted issues**

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-004	**3.1.1.A-05-01H**	**Poehler/Inch**	**E Mail (9/12/0**	**Request Informa**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **3.1.2.A**

NRC Issue

NOTE: This question applies to NMP2 also. (Page 3.1-78&79).

On page 3.1-49 of the ALRA, loss of fracture toughness of vessel shells (beltline, lower shell, upper nozzle shell and upper RPV shell and vessel shell welds (including attachment welds) is to be managed using RV surveillance program. Please provide discussion to confirm that all these areas have a neutron fluence exceeding 1E17n/sq.cm (E>1 MeV) at end of the license renewal period and identify which attachment welds are addressed.

(Identify which components of vessel shells are managed by RV surveillance AMP and which are not.)

NMP Response:

For NMP1, only the vessel shells – beltline, and vessel shells – lower and the beltline welds have a neutron fluence exceeding 1E17 n/cm2 (thus are managed by the RV Surveillance Program). The beltline welds are currently not identified as a separate component type but are included under the component type "Vessel Shell Welds (including attachment welds)" Loss of fracture toughness does not apply to attachment welds for NMP1 because these welds did not use ferritic material; and therefore these welds are not managed by the RV Surveillance Program. All attachment welds that receive 1E17 n/cm2 or greater are nickel-based alloys or stainless steel.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-005	**3.1.1.A-07-01H**	**Fallin, Mike**	**E Mail (9/12/0**	**Typo/Editorial**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **3.1.2.A**

NRC Issue

On page 3.1-70 of the ALRA, CASS valves cracking is to be managed using ASME ISI IWB/C/D program, OTI & WC for the intended function of LBS & SIA. Table 2.0-1 indicates that LBS & SIA apply to non-safety-related (NSR) components only. Please explain why NSR components are managed by ASME ISI.

NMP Response:

When the IFs for the SR and NSR CASS valves were separated, apparently their respective AMP columns were inadvertently reversed. The assignment of the Section XI, OTI, and WCC Programs apply to the PB valves and the assignment of the OTI and WCC Programs only should apply to the LBS, SIA valves.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-006	3.1.1.A-07-02H	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	10/26/200	CLOSED

LRA_Section 3.1.2.A

NRC Issue

On page 3.1-70 of the ALRA, CASS valves cracking is to be managed using OTI & WC programs for the intended function of PB components. Please explain why ASME ISI IWB/C/D is not credited for this component type.

NMP Response:

When the IFs for the SR and NSR CASS valves were separated, apparently their respective AMP columns were inadvertently reversed. The assignment of the Section XI, OTI, and WCC Programs apply to the PB valves and the assignment of the OTI and WCC Programs only should apply to the LBS, SIA valves.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-007	**3.1.1.A-08-01H**	**Fallin, Mike**	**E Mail (9/12/0**	**Clarification**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **3.1.2.A**

NRC Issue

On page 3.1-48 of the ALRA, WASS valves cracking is to be managed using ASME ISI IWB/C/D program, OTI & WC for the intended function of LBS & SIA. Table 2.0-1 indicates that LBS& SIA apply to non-safety-related (NSR) components only. Please explain why NSR components are managed by ASME ISI. Please explain why Table 1 item 3.1.1.A-08 was determined to belong to this component type.

NMP Response:

These are small bore valves associated with the vessel flange leak detection lines which are NSR for NMP1. As such, the ASME Program is not applicable and will be removed from the LRA Table.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

Hsu, Robert — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-113	**3.1.1.A-09-01H**	**Mazzaferro, Pet**	**Audit (9-19-0**	**Technical Issue**	**9/19/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.2.2.A-1**

NRC Issue

On page 3.1-24, the applicant states that NMP1 is consistent with NUREG-1801 with the exception that eddy current testing of the tubes cannot be readily performed due to the all-welded fabrication of the condenser, i.e., there is no access to the condenser tubes. Continuous radioactivity monitoring of the condenser vent is provided in the Control Room. Temperature monitoring is conducted by a preventive maintenance program procedure. Further evaluation is documented in Appendix B2.1.2 (Water Chemistry Control Program) and B2.1.32 (Preventive Maintenance Program). Inaccessibility alone cannot justify exemption from inspection where required for aging management. Please provide further discussion to confirm that aging management for isolation condenser tube degradation is adequate. (Dresden 2&3, Nine Mile Point 1, and Oyster Creek also have isolation condensers. Operating experience (documented in IEB 76-01) indicates that tube cracking is an issue. Oyster Creek has replaced its isolation condensers. The Dresden plant will perform eddy current test to ensure tube integrity to avoid radiation discharging into atmosphere.) Please discuss NMP 1's operating experience related to isolation condenser tube cracking and elaborate on aging management of this issue.

NMP Response:

NMP confirms that the existing and committed aging management activities provide adequate assurance that any tube degradation in the isolation condensers will not lead to a loss of intended function without the need for eddy current testing. These activities include water chemistry control, temperature monitoring of the shell side and tube side water, continuous radioactivity monitoring of the condenser vent line, periodic performance testing and a future on-line tube leakage test. NMP1 has experienced tube leakage previously and replaced them with upgraded material in 1997. A keep fill modification was also installed to eliminate the stressor which caused the tube failures. Therefore, since the original isolation condenser tubes lasted 28 years with an aging stressor, the new tubes are expected to perform their intended function through the period of extended operation with improved material and upgraded system design and monitoring.

Background
In 1976 the NRC issued I&E Bulletin (IEB) 76-01 notifying the industry of a tube failure in the isolation condenser at Millstone Unit 1 and requiring assurance that tube integrity is maintained from applicable licensees. NMP1 responded by crediting existing water sampling for radioisotopes and isolation condenser vent radiation monitoring as well as performing a hydrostatic test in 1977. These actions resolved the issues identified in IEB 76-01.

In September 1997, NMP1 identified tube leaks in the isolation condensers and entered an outage to affect repairs. The root cause of the tube leaks was determined to be high thermal cycle fatigue due to leakage past the condenser outlet valves which resulted in unstable conditions in the tubes and boiling and elevated temperatures on the shell side. Other contributing factors were stress corrosion on the outside diameter of the tubes in the roll transition region due to steaming and high thermal gradients in the tubes as well as boiling and high temperatures at the tube sheet concentrating impurities. NMP1 corrected this condition by replacing the tube bundle (tubes and tube sheet) in all four isolation condensers with upgraded material (316L SS vs. 304 SS) and installing a permanent keep fill system to maintain water level in the tubes at all times. (See LER 97-10 for more detailed information.)

Aging Management Activities
Aging management of the NMP1 isolation condenser tubes is based upon a combination of preventing the aging effects and detecting any tube leakage prior to a loss of system intended function. The aging effects are prevented by maintaining the water on both sides of the tubes at the necessary quality limits and ensuring that the water level is always above the tubes. The water on the tube side is reactor grade water and controlled in accordance with the EPRI guideline (TR-103515) specified in the NMP Water Chemistry Control Program. The shell side water is maintained in accordance with chemistry limits for contaminants. Maintaining water level above the tubes is accomplished by the keep fill system and eliminates the high cycle thermal stresses which caused the failures of the original tubes. Water level is monitored by temperature sensors installed on the outside of the steam supply piping. These activities serve to prevent the mechanisms that result in aging effects.

Detection is also an integral part of the aging management strategy for the isolation condenser tubes to confirm that the prevention activities are effective. Continuous radioactivity monitoring of the condenser vent lines provide real time detection of a potential tube leak and allows action to be taken prior to a loss of the system intended function. Temperature monitoring of the shell side water also provides real time monitoring of a potential tube leak. Monthly sampling of the shell side water for radioisotopes also provides early detection of a potential tube leak. Similarly, action can be taken based upon the sampling results and trends prior to a loss of any system intended function. The final detection method is a future on-line tube leakage test. While this method also only detects a potential tube leak after it occurs, it provides for timely corrective actions to prevent a loss of any system intended function.

Operating Experience
NMP1 began operation in 1969 and tube integrity of the isolation condensers was confirmed in 1977 in response to IEB 76-01. Shell side water sampling, condenser vent line radiation monitoring and ASME Section XI pressure testing also provided evidence of tube integrity throughout the history of the plant. In 1997, a tube leak was detected and corrective and preventive actions were implemented. Since operation resumed in 1997, NMP1 has maintained water quality within acceptance limits and tube side water level within the required range to prevent the previously experienced aging effects from occurring.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

Summary
Based upon the above information, the NMP1 isolation condenser tubes are adequately managed by a combination of an improved design, aging prevention activities and detection of tube leakage prior to a loss of system intended function. The basis for not performing eddy current testing is as follows.

1)□Condition and stresses that are precursors to SCC of tubes have been eliminated by:
a)□Lowering temperature of the tubes primary and shell side water
b)□Maintaining shell side water chemistry
c)□Maintaining BWR primary water chemistry
2)□The susceptibility of the tubes to SCC has been improved by design changes to:
a)□Replace the tube bundle material with Type 316 stainless steel (low carbon)
b)□Install a keep fill system to maintain steam water interface above top of tube bundle (no thermal cycles)
3)□Monitoring and detection of conditions in the steam inlet (tube side) and shell side of the isolation condensers ensures conditions will not re-occur.
a)□Water temperature
b)□Water chemistry (conductively, chloride, nitrates, sulfates)
4)□Commitment has been made to perform a tube leak test at operating pressure to detect small leaks. (SEE NMP letter NMP1L 1958, dated July 14, 2005.)
5)□NMP1 isolation condenser system design contains a permanent keep fill system, which is not part of the Dresden or Oyster Creek permanent designs.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-008	3.1.1.A-26-01H	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	10/26/200	CLOSED

LRA_Section 3.1.2.A

NRC Issue

On page 3.1-57 & -65 of the ALRA, closure bolting is to be managed using bolting integrity program. Please explain how closure bolting NOTE is E instead of A or B.

NMP Response:

The Notes entry should be Note B since NMP Letter NMP1L 1985 submitted 9/15/05 identified an exception for the Bolting Integrity Program (ASME Code version).

See the response to NMP-AI-048 (3.3.1.B.05-01K) for addressing the extent of condition of this item.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-010	**3.1.1.A-30-01H**	**Poehler/Inch**	**E Mail (9/12/0**	**Clarification**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **3.1.2.A**

NRC Issue

On page 3.1-44 of the ALRA, penetrations credit either BWR Penetration and WC programs, or BWRVIP. Please explain which components are managed using BWRVIP and confirm that Note E is appropriate. Please clarify whether the other two programs are also used when BWRVIP is applied.

NMP Response:

The component type penetrations discussed on page 3.1-44 include CRD stub tube and flux monitor penetrations which are covered by BWRVIP-47. The GALL described penetrations program does not describe these penetrations. The NMP BWRVIP program includes these penetrations in the BWRVIP program. Note E is referenced because of this difference relative to the GALL. The Water Chemistry Program is applicable to all vessel penetrations;. therefore, the line in the ALRA that credits the BWR VIP should also include the Water Chemistry Control Program.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-011	3.1.1.A-31-01H	Poehler/Inch	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section 3.1.2.A

NRC Issue

On page 3.1-51 of the ALRA, control rod guide tubes (CRGT) is to be managed using BWRVIP with NOTE D. BWRVIP-47 does identify CRGT inspection. Please provide discussion why NOTE D is applicable.

NMP Response:

The referenced Note should be Note B. Note 13 will be revised to indicate that the guide tubes are equivalent to the CR drive housing referenced in the GALL.

Note B should have been identified because of the exception with regard to the implementing the latest version of the water chemistry guidelines versus BWRVIP-29. No exception is taken to the BWRVIP Program.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-012	3.1.1.A-31-02H	Poehler/Inch	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section None

NRC Issue

On page 3.1-52 of the ALRA, core shroud head bolts and collars are to be managed using BWRVIP with NOTE D. BWRVIPs are applied for those specific components. Please provide discussion how BWRVIP manages this item if there is no specific BWRVIP report for this component type.

(Provide inspection details on what NMP does for core shroud head bolts based upon OE.)

NMP Response:

An important element of the BWRVIP program includes inspection of non safety related components that could impact plant operations. This aspect of the BWRVIP program relies heavily on industry OE and vendor information such as GE Nuclear Energy Service Information letters (SIL). Based on the industry OE (SIL-433 and SIL-433 supplement 1) the NMP BWRVIP internals program includes a UT inspection program for the shroud head bolts and collars that are susceptible to IGSCC. In addition, based on plant specific OE which identified evidence of fretting wear of the locking pins and improperly locked shroud head bolts, augmented inspections are established. The BWRVIP internals program includes the shroud head bolts for the above reasons.

NMP provided copy of SIL 554 to NRC

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-013	**3.1.1.A-31-03H**	**Poehler/Inch**	**E Mail (9/12/0**	**Clarification**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **3.1.2.A**

NRC Issue

On page 3.1-55 of the ALRA, liquid poison spray line and sparger are to be managed using BWRVIP with NOTE D. BWRVIP is applied for those specific components. Please provide discussion how BWRVIP manages this item if there is no specific BWRVIP report for this component type.

NMP Response:

BWRVIP-27 is the basis document which establishes the required inspections to ensure the safety related function of the liquid poison system is maintained. The basis in BWRVIP-27 is that the spray line connection to the vessel is the required inspection and the sparger does not require inspection. The liquid poison line and sparger are located below the core plate and are components that fall within the BWRVIP-47-A baseline inspection requirements. The final NRC approved BWRVIP-47-A requires a baseline inspection of all components located below the core plate when access is provided. In addition, the NRC approval letter of BWRVIP-47-A notes that a minimum visual inspection of 5% of the weld or component population within the first 6 years of the period is required. This population includes the liquid poison line and sparger below the core plate.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-014	**3.1.1.B-05-01H**	**Poehler/Inch**	**E Mail (9/16/0**	**Request Informa**	**9/17/2005**	**10/26/200**	**CLOSED**

LRA_Section **3.1.2.B**

NRC Issue

On page 3.1-78 and -79, the ALRA states that loss of fracture toughness of vessel shells (beltline, lower shell, upper nozzle shell and upper RPV shell and vessel shell welds (including attachment welds) is to be managed using RV surveillance program. Please provide discussion to confirm that all these areas have a neutron fluence exceeding 1E17n/sq.cm (E>1 MeV) at end of the license renewal period and identify which attachment welds are addressed.

(Identify which components of the vessel shell are managed by the RV Surveillance AMP and which are not.)

NMP Response:

For NMP2, only the lower shell (Shell 1) and lower intermediate shell (Shell 2), and those vessel welds located in the beltline region have a neutron fluence exceeding 1E17 n/cm2 (thus are managed by the RV Surveillance Program) The beltline welds are currently not identified as a separate component type but are included under the component type "Vessel Welds (including attachment welds)" Loss of fracture toughness does not apply to attachment welds that receive 1E17 n/cm2 or greater because these welds are nickel-based alloys or stainless steel, not ferritic material. The only carbon/low alloy steel attachment welds in either unit are the steam dryer holdown bracket attachment welds in the NMP2 upper head, which are low-fluence welds.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-015	3.1.2.A-05-01A	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	9/23/2005	CLOSED

LRA_Section T 3.2.2.A-1

NRC Issue

On page 3.2-36 of the ALRA, 3.1.2.A-05 is referenced. Please confirm or correct.

NMP Response:

This is a typo – the entry should be 3.2.1.A-05

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-016	3.1.2.B-1-01H	Poehler/Inch	E Mail (9/12/0	Typo/Editorial	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.1.2.B-1

NRC Issue

On page 3.1-72 of the ALRA, loss of fracture toughness of nozzles is to be managed using RV surveillance program. Please clarify which nozzles are to be managed by RV surveillance and which Table 1 item & GALL Report Vol. 2 item are applied.

NMP Response:

The nozzles to be managed by the RV Surveillance Program are the LPCI/RHR (N6) nozzles and the water level nozzle (N13). Table 1 item 3.1.1.B-05 applies to this item and Table 2 Item IV.A1.2-d is being applied to this item. This information was inadvertently omitted from the ALRA.

Because of the proximity of the RHR/LPCI nozzles to the beltline region, GE originally performed a generic assessment of these nozzles for BWR/5 plants that determined these nozzles were not limiting with respect to P-T limits. This analysis is not explicit in the NMP2 CLB and, therefore, was not identified as a TLAA. These nozzles are not, therefore, included in the P-T curve analyses currently approved for NMP2, nor are representative materials for these nozzles included in the Reactor Vessel Surveillance Program. NMP2 will perform an analysis of these nozzles to determine whether the nozzles will become limiting with respect to P-T limits. The analysis will consider the projected fluence for 54 EFPY for the nozzles. This activity will be tracked under the RV Surveillance Program.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-017	3.2.1.A-02-01A	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	9/23/2005	CLOSED

LRA_Section T 3.2.2.A-3

NRC Issue

On page 3.2-56 of the ALRA, confirm GALL v2 item intended is V.D.2.1-a.

NMP Response:

Yes, for the two entries on this page where it is credited, "V.D2.1-a" is applicable.

NRC Audit Issues:
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Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-093	B2.1.1-01H	Brown/Haws/A	E Mail (9/16/0	Clarification	9/17/2005	10/26/200	CLOSED

LRA_Section **B2.1.1**

NRC Issue

In Section B.2.1.1, the ALRA states that Examination Categories B-F, B-J, C-F-1, C-F-2 and IGSCC Category A are inspected using the EPRI risk-informed methodology and implemented in accordance with ASME Code Case N–578-1 as approved by NRC plant-specific Relief Request.

The NMP Risk-Informed ISI relief request is for CLB and only for an interval of 10 years. Please provide the basis for extending this Risk-*Informed ISI for the period of extended operation.*

NMP Response:

This issue is addressed in its entirety by the response to question NMP-AI-165.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-150	B2.1.4	Inch, G.	Audit (9-21-0	Clarification	9/21/2005	10/26/200	CLOSED

LRA_Section B2.1.4

NRC Issue

In the PBD for B2.1.4, BWR Vessel ID attachment welds, Table 2.0-1 identifies 'Vessel Shell Welds' as components managed by this program (B2.1.4, BWR Vessel ID Attachment Welds Program). Please clarify the intent since the vessel shell welds are not within the scope of this program.

NMP Response:

This is a typo. The shell welds are managed in the reactor vessel surveillance program.

NRC Audit Issues:
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Hsu, Robert

Closed and Accepted issues

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-136	B2.1.5	Inch, G.	Audit (9-20-0	Typo/Error	9/20/2005	10/26/200	CLOSED

LRA_Section B2.1.5

NRC Issue

In the 9/15/2005 NMP letter, the Feedwater and CRDRL Nozzle Programs were removed as the credited programs for the FW nozzle and CRDRL nozzle thermal sleeves, However, the Table items 3.1.1.A.27 and 3.1.1.B-27 still reflect the thermal sleeves being managed by these programs. Please address this discrepancy.

NMP Response:

This audit item addresses the Feedwater Nozzle thermal sleeves. See Audit Item NMP-AI-175 for the response relative to the CRDRL Nozzle thermal sleeves.

FOR NMP1:

The response to RAI 3.1.2-21 submitted by letter NMP1L 1958, dated July 15, 2005, explains that NMPNS will credit the BWR Feedwater Nozzle Program, GALL Program XI.M5, for managing cracking of the feedwater nozzle thermal sleeves. Because the BWR Feedwater Nozzle Program includes design and operation requirements that would minimize the potential for cracking of the nozzle and thermal sleeve, but does not require any direct inspections of the thermal sleeve, an additional aging management program for condition monitoring is required. NMPNS will use inspections performed under the BWR Vessel and Internals Program using surrogate components that are more readily accessible for examination. For NMP1, the surrogate components will be the feedwater sparger end bracket welds.

Basis

The NMP1 feedwater nozzle thermal sleeves are fabricated from nickel-based Alloy 600 (Inconel 600). A full penetration weld joins the thermal sleeve to the outboard end of the carbon steel feedwater sparger. This weld was made with Alloy 82 and Alloy 182 weld fillers. The thermal-sleeve to sparger weld, or the heat affected zone in the Alloy 600 base material, is considered the most likely location for IGSCC in the thermal sleeve. (Figure labeled "A" shows the feedwater nozzle thermal sleeve and thermal-sleeve to sparger weld configuration)

Each feedwater sparger is supported by end brackets which provide a spring force that helps hold the thermal sleeve in place. (The figure labeled "B" shows the feedwater sparger general configuration) The feedwater sparger end bracket welds consist of three welds: the sparger arm to sparger end plate welds (Weld #1), sparger end plate to bracket end plate weld (Weld #2), and the sparger bracket end plate to end bracket assembly welds (Weld #3), which are dissimilar metal welds that use Alloy 182 or 82 weld fillers (Figure labeled "C" shows welds #1, 2, and 3).

SCC of the feedwater thermal sleeves or the associated welds is possible but is considered less likely than for other welds with the same weld filler associated with the feedwater sparger since the inconel to carbon steel welds are heat-treated shop welds and are not creviced. Service experience has demonstrated that Alloy 82 is resistant to intergranular stress corrosion cracking (IGSCC) in BWR reactor coolant. Alloy 182 is less resistant to IGSCC than Alloy 82 but has performed acceptably when aggravating factors, such as lack of fusion or a creviced condition, exist. These conditions are more likely in field welds. The Alloy 600-to-carbon steel welds in the thermal sleeve are full penetration welds and do not create a creviced condition. Additionally, the thermal sleeve assembly was heat treated after welding. The #1 end bracket welds use Alloy 182 filler metal in a mildly creviced condition, making them more susceptible to IGSCC than the thermal sleeve-to-sparger welds. Additionally, the #1 welds are exposed to reactor coolant chemistry on the outer diameter which has a higher electrochemical potential (ECP) and, thus, are more likely to cause IGSCC than feedwater, which has a much lower ECP. Therefore, if cracking is not found in the #1 welds, inspection of the thermal sleeve-to-sparger welds is not necessary.

The most susceptible of the three feedwater sparger end bracket welds (Weld #2) are subject to enhanced VT-1 visual inspection (EVT-1) under BWRVIP. If cracking is found in these welds, the other end bracket welds (#1 and #3) will be inspected. If cracking is found in the less susceptible end bracket welds, the necessity to inspect the thermal sleeve-to-sparger welds will be evaluated. The BWR Vessel and Internals Program will, therefore, be credited with managing cracking of the thermal sleeve since the susceptibility of the critical thermal sleeve weld to IGSCC is bounded by other welds inspected under the BWRVIP Program.

FOR NMP2: (ADDED on 10/14/05)

The NRC audit team raised a concern regarding the AMP proposed to manage the feedwater nozzle thermal sleeve. NMP proposed the NUREG 0619 program to manage feedwater thermal sleeve IGSCC cracking. The NRC review concluded that this program did not include any inspection of the thermal sleeve and, therefore, was not adequate to manage the potential cracking of the thermal sleeve.

The following Program attributes were discussed:

• NMP acknowledged that the NUREG 0619 inspection program does not inspect the thermal sleeve. NMP noted that the NMP1 plans are fully consistent with the AMP credited for other recent NRC approved LR applications. The basis is that the inspection programs will detect cracking in the nozzle prior to the cracking becoming safety significant. The program does not monitor the thermal sleeve since the thermal sleeve is not a pressure boundary component and failure of the thermal sleeve does not directly lead to pressure boundary failure. The proposed NMP1 and

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Hsu, Robert

Closed and Accepted issues

NMP2 programs are fully consistent with the NUREG 0619 program with regard to materials of construction and resistance to IGSCC; therefore, the probability of IGSCC cracking of the thermal sleeve is considered extremely low.
• NMP personnel noted that an augmented inspection of accessible welds on the feedwater sparger end brackets at NMP1 provide a leading indicator of the potential for IGSCC in the hidden welds of the thermal sleeve. This inspection is currently part of the existing BWRVIP program at NMP1. The end bracket welds include an alloy 82 shop weld similar to the thermal sleeve hidden weld and an alloy 182 field weld that is more susceptible to IGSCC because of the weld alloy and the stress state of the weld. The AMP to manage the feedwater thermal sleeve that was proposed credits these accessible locations as surrogate locations that the program would use to determine if a significant risk of integrity of the thermal sleeve exists. Based on the condition of the end bracket welds, supplemental evaluation of the thermal sleeve would be required.
• This approach was considered an acceptable AMP for the NMP1 feedwater thermal sleeve. The NMP1 feedwater thermal sleeve is an MPR design with an alloy 600 thermal sleeve and carbon steel sparger and as such is not directly transferable to the NMP2 thermal sleeve design. It was noted that a similar evaluation of the NMP2 feedwater sparger welds and the selection of surrogate welds that are accessible for inspection would also be acceptable for NMP2. These accessible welds would be used as a leading indicator for potential IGSCC cracking of the thermal sleeve. If cracking is found in these welds, a supplemental evaluation of the thermal sleeve integrity would be required.

The review of the NMP2 feedwater thermal sleeve and sparger has been completed. The review has confirmed that the thermal sleeve material is 316L, with several hidden stainless steel welds. The fabrication method review is not complete. The fabrication review will determine the welding procedures, and if the welds were stress relieved. If the hidden welds were stress relieved, the welds would not be considered susceptible to IGSCC and the aging mechanism of cracking would not be considered applicable to NMP2.

The review of the NMP2 feedwater sparger installation details identified the field installation applied a 20,000 lbf load creating a 0.125" cold spring to the sparger. The sparger end brackets were pinned, locking in the cold spring, and then final field welded with a fillet weld. This installation detail is similar to the NMP1 installation detail. The result of the cold spring is a fit-up net tensile stress superimposed on the weld residual stress. The combination of the fit-up stress (cold spring) plus the residual stress of the field weld conditions and the fillet weld crevice geometry create a higher susceptibility to IGSCC as compared to the thermal sleeve welds. The reactor water chemistry in the region of the feedwater sparger end bracket welds is equivalent to, if not more aggressive than, the corrosion potential of the reactor water in contact with the outside diameter weld of the thermal sleeve.

Conclusion:

An EVT-1 examination of the NMP1 and NMP2 feedwater sparger end bracket welds will be added to the BWR Vessel and Internals Program as a program enhancement. The inspection extent and frequency of the end bracket weld inspection will be the same as the ASME Section XI inspection of the feedwater sparger bracket vessel attachment welds. If the final fabrication review of the NMP2 feedwater thermal sleeve concludes that the hidden welds are not IGSCC susceptible, the NMP2 inspections will be discontinued.

The overall conclusion is that both the NMP1 and NMP2 feedwater sparger end bracket welds represent a conservative representative inspection of the material condition of the hidden thermal sleeve welds with regard to potential IGSCC cracking. Therefore, consistent with the discussion between the NRC Audit Team and the LR Project during the audit, cracking of both the NMP1 and NMP2 Feedwater Nozzle Thermal Sleeves will be managed by the BWR Feedwater Nozzle, BWRVIP, and Water Chemistry Control Programs.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-112	**B2.1.5-01H**	**Anderson, E**	**Audit (9-19-0**	**Clarification**	**9/19/2005**	**9/22/2005**	**CLOSED**

LRA_Section **B2.1.5**

NRC Issue

NMP ALRA states that the NMP Feedwater Nozzle Program satisfies the requirements of GALL AMP XI.M5, "BWR Feedwater Nozzle." GALL AMP XI.M5 identifies inspection in accordance with ASME Section XI, IWB and recommendation of GE NE-523-A71-0594. Please provide discussion to demonstrate NMP inspection requirements meet GE NE-523-A71-0594 in inspection regions, frequency, plant-specific fracture evaluation, etc.

NMP Response:

Issue closed based on discussion with NRC Auditors, Robert Hsu and Malcolm Patterson, during intrview.

NRC Audit Issues:
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Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-107	B2.1.6-01H	Inch/Anderson	E Mail (9/16/0	Clarification	9/17/2005	10/26/200	CLOSED

LRA_Section B2.1.6

NRC Issue

Staff has issued NRC final safety evaluation of BWRVIP-75. Please discuss what impact the Final SE of BWRVIP-75 has upon NMP's BWR SCC program, if any.

NMP Response:

NMP has implemented BWRVIP-75 final SE normal water chemistry provisions and is included in the existing program for both NMP1 and NMP2. The provisions of both BWRVIP-75 and the final SE for BWRVIP-75 with regard to crediting hydrogen water chemistry have not been implemented at either NMP1 or NMP2. Implementation of hydrogen water chemistry aspects of the final SE to BWRVIP-75 will require revision to the NMP BWR SCC program to address the requirements associated with maintaining effective HWC conditions as defined in BWRVIP-62. The implementation of HWC is planned after final NRC SE is received for BWRVIP-62 and the NMP BWRVIP Water chemistry program fully implements BWRVIP-62 provision for effective HWC.

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NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-108	B2.1.8-01H	Inch, G.	E Mail (9/16/0	Clarification	9/17/2005	10/26/200	CLOSED

LRA_Section B2.1.8

NRC Issue

On page A1-37 & B2-25 of Amended LRA, the applicant states that a minimum of 10% of the locations will be inspected within 12 years of the beginning of the period of extended operation, with at least 5% of the inspections completed within 6 years. Please confirm that the commitment also addresses subsequent intervals. Also, please discuss what additional locations are to be inspected.

(See Browns Ferry SER.)

NMP Response:

ADDED on 10/14/05

During the September ALRA Audit, the NRC requested clarification relative to a statement on pages A1-37 and B2-25 of the ALRA that NMP will enhance BWRVIP (BWR Vessel Internals Program) to include a sample inspection of the top guide grid beam using EVT-1 methods for a minimum of 10% of the locations within 12 years of the beginning of the period of extended operation, with at least 5% of the inspections to be completed within 6 years. This commitment is consistent with the GALL, Revision 1 suggested approach. The NRC requested confirmation that the commitment also addresses subsequent intervals and requested a more detailed discussion with regard to the additional locations to be inspected.

The following plant specific information was provided to the ALRA Audit Team:

- Prior to 2003, the NMP1 top guide fluence was estimated, using the latest best estimate transport techniques, to have exceeded the GALL identified 5E20 n/cm2 threshold for IASCC concerns.
- Consistent with GALL, Rev. 1 guidance and GE SIL 554 recommendations, NMP1 implemented the recommended EVT-1 sample inspection in 2003 (RFO17) and found one crack.
- In the subsequent 2005 outage (RFO18), NMP1 expanded the inspection scope to include all accessible top guide grid beam locations using UT inspection methods. The scope expansion achieved essentially 95% coverage of the grid beam. This scope expansion and the UT inspection method are fully consistent with the current guidance in BWRVIP-26A and with GE SIL 554 which was specifically issued for the top guide grid beam. This UT inspection verified the presence of the crack that was identified by the 2003 EVT-1 examination and identified 5 others.
- DER 2005-1614 provides the disposition of the indications identified in the 2005 inspection. The DER disposition references the NMP1 flaw handbook and justifies at least 1 operating cycle prior to the next inspection. The DER corrective actions include a reanalysis of the as-found condition and the definition of the appropriate inspection scope and frequency. This resultant plan is consistent with the guidance provided in BWRVIP-26A for top guide grid beam flaw analysis (i.e., to perform a plant specific flaw analysis to define the structural margin and the appropriate inspection interval and scope) to which NMP is committed.

The GALL, Revision 1 recommended inspections reference the guidance in BWRVIP-47A, for the control rod guide tubes, as an acceptable inspection plan for the top guide grid beam. However, it is noted that the BWRVIP-47A guidance is for a baseline inspection only. The following interpretation of the BWRVIP-47A generic guidance was provided to the NRC Audit Team during the ALRA Audit:

- BWRVIP-47A defines an initial baseline inspection, and defines scope expansion for follow-on inspections if flaws are found. BWRVIP-47A indicates that no additional inspections are recommended beyond the baseline other than those associated with scope expansion and follow-on inspections of identified flaws. BWRVIP-47A does state that an evaluation of the need for reinspection will be performed at an industry level after the initial baseline inspections are completed.
- Similarly for the top guide grid beam, the reinspection requirements will depend on the inspection results and industry data.

The top guide grid beam inspection sample plan discussed in GALL, Revision 1 is a sample program. At NMP1, the existing inspection program included a sample inspection similar to the GALL, Revision 1 recommendation and the program has identified top guide cracking. Consistent with BWRVIP-47A, which is the basis for the GALL, Revision 1 sample inspection plan for the top guide grid beam, NMP1 implemented a scope expansion inspection of the grid beam during RFO18 (2005) as a result of the inspection results from RFO17 (2003). This scope expansion was performed using UT inspection methods which achieved approximately 95% coverage of the grid beam. The volumetric coverage was capable of detecting flaws through the height of both the upper and lower grid beams and at the intersections. The 2005 UT inspection is considered to be the NMP1 top guide grid beam baseline inspection identified in the BWRVIP-47A guidance.

Conclusions:

The reinspection scope and frequency for the grid beam going forward will be based on BWRVIP-26A guidance for plant specific flaw analysis and crack growth assessment. The maximum reinspection interval for the grid beam will not exceed 10 years consistent with standard BWRVIP guidance for the core shroud. The reinspection scope will be equivalent to the UT baseline 2005 inspection scope. In addition, the reinspection scope will include an EVT-1 sample inspection of at least 2 locations with accessible indications within the initial 6 years of the 10 year interval. The intent of the EVT-1 is to monitor the known cracking to confirm flaw analysis crack growth assumptions. Note: The inspection interval is defined based on five refueling outages (over a 10 year span based on NMP's 24 month fuel cycles) from the date of the UT baseline inspection

Hsu, Robert

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(2005).

For NMP2:

The existing enhancement to perform the top guide inspections for NMP2 will be revised as follows:

NMP2 will perform inspections of the guide beams similar (in inspection methods, scope and frequency of inspection) to the inspections specified in BWRVIP-47, "BWR Lower Plenum Inspection and Flaw Evaluation Guidelines," for the control rod guide tube components. The extent of examination and its frequency will be based on a ten percent sample of the total population, which includes all grid beam and beam-to-crevice slots, being inspected within 12 years of entry into the period of extended operation with five percent of the population being inspected within the first six years. The sample locations selected for examination will be in areas that are exposed to the highest neutron fluence. The top guide grid beam reinspection requirements will depend on the inspection results; however, at a minimum, the NMP BWRVIP program will follow the same guidance for the subsequent 12 year interval as defined for the initial 12 year baseline.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-127	T 3.1.1.A	Mazzaferro, Pet	Audit (9-20-0	Clarification	9/20/2005	10/26/200	CLOSED

LRA_Section 3.1.2.A

NRC Issue

Page 3.1-25, Item 3.1.1.A-22, applicant states "Consistent with NUREG-1801 with exceptions (see Section B2.1.3). The Reactor Head Closure Studs Program (Section B2.1.3) is credited for Closure Head Studs and Nuts that have an aging effect/mechanism of loss of material due to general corrosion." This item is for the cracking issue. Please provide clarification for the aging effect/mechanism.

NMP Response:

NMP agrees that the LRA Table 1 line items 3.1.1.A-22 and 3.1.1.B-22 are applicable only for the aging effect of cracking. Therefore, the discussion column for these two line items will be revised to remove the reference to the Reactor Head Closure Studs program managing loss of material.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Hsu, Robert

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-036	3.3.1.A-03-01K	Poehler	E Mail (9/12/0	Technical Issue	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.3.1.A

NRC Issue

On page 3.3-86, the LRA states that they have no TLAA for components in load handling systems. These components experience cyclic loading and therefore should require an aging management program. Please provide the technical justification demonstrating why this aging effect is not applicable to NMP or provide the aging management program.

NMP Response:

All cranes and hoists within scope of license renewal are managed by the Overhead Heavy/Light Loads Program.
License renewal applicants that identified a TLAA for Fatigue or Cyclic Limit of cranes did so because the cranes were designed to Crane Manufacturer's Association of America (CMAA) Specification 70, which specifies a maximum of 100,000 cycles at the maximum allowable stress range for Service Class A1 Cranes. For cranes not designed to CMAA-70, design specifications do not include cyclic limits. For example, the NMP1 reactor building overhead crane was designed to EOCI-61, an earlier crane design standard that did not include cyclic limits.

This issue has been screened against the six criteria for a TLAA for NMPNS. It was determined that the operating cycles for the cranes did not meet the criteria for a TLAA because 1) there were no actual calculations or analyses in the CLB projecting the number of operating cycles and; 2) For cranes designed to CMAA-70, an estimate of the number of possible operating cycles in 60 years that were a substantial fraction (40-95%) of the crane maximum rated load determined a very small percentage of the allowable number of cycles (for the NMP2 reactor building polar crane, 1500 cycles versus a minimum allowable number of cycles of 100,000). Therefore, generating a formal calculation of operating cycles for 60 years would not result in any meaningful limitations on the use of the crane; i.e. the calculation would not meet criteria #4 for a TLAA from 10 CFR 54.3 which is: "Were determined to be relevant by the licensee in making a safety determination."

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-037	3.3.1.A-04-01K	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.3.1.A

NRC Issue

On page 3.3-87, the LRA states that crack initiation and growth (or cracking) will be managed using WC and PMP programs. On page 3.3-174, WC and OTI are used to managed this AE in the WASS HX. Please identify which AMPs are used and clarify the basis for their selection.

NMP Response:

The last sentence of Table 1 Item 3.3.1.A-04 on P. 3.3-87 will be revised to read, "Further evaluation is also documented in Appendices B2.1.2 (Water Chemistry Control Program) and B2.1.20 (One-Time Inspection Program)."

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-042	3.3.1.A-15-01K	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.3.2.A-7

NRC Issue

Table 1 item is cited more than a dozen times in Tables 3.3.2.A-7, -21, and -22 of the ALRA. GALL Notes A, B, C, & D are assigned. According to the ALRA B2.1.11, no exception to the GALL AMP XI.M21 has been taken. Please clarify the basis for the use of Notes B/D.

NMP Response:

The notes are all A unless a GALL Item does not address a specific Component Type, in which case the Note is C.
There are 2 references to this Table 1 Item in Tables 3.2.2.A-1 and 3.3.2.A-21 for Gray Cast Iron pumps where the GALL and Table 1 Item column entries are being removed and the Notes column entry of E is replaced with H.

There is also reference to this Table 1 Item for GCI HXs in Table 3.3.2.A-07. The Note used for this line is D; however, it should be C since the component is a HX instead of a Pump and the CCCWP takes no exceptions to the GALL.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-044	3.3.1.A-17-01K	Mazzaferro, Pet	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.2.2.A-2

NRC Issue

On page 3.2-43 of the ALRA, loss of heat transfer from heat exchangers in the core spray system are managed using the PMP. Please clarify the basis for this choice.

NMP Response:

The subject heat exchangers in the core spray system are the pump motor coolers. These components cool the motor bearing oil, are made of brass tubing and use system water (torus water) as the cooling medium (i.e. the pump discharge is routed to the coolers). The coolers will be inspected for damage in accordance with maintenance procedure N1-EMP-GEN-200, Vertical Motor Maintenance. This procedure will be enhanced to specifically address the loss of heat transfer aging effect.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-045	**3.3.1.A-24-01K**	**Fallin, Mike**	**E Mail (9/12/0**	**Clarification**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.3.2.A-10**

NRC Issue

On page 3.3-147, the LRA assigns Note B to bolting of the NMP1 Liquid Poison System, although B2.1.36 took no exception from the requirements of GALL XI.M18. Please clarify.

NMP Response:

Alignment should be to Note B. An exception has now been taken to the GALL (based on the version of the ASME code that is addressed in the GALL) for the Bolting Integrity Program. This exception was included in NMP's 9/15 letter (NMP1L 1985) and will be included in the letter that will supersede it.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-046	3.3.1.A-30-01K	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.3.1.A

NRC Issue

On page 3.3-96, the LRA states that FP and SM AMPs will be used to manage aging of fire barriers, walls, ceilings, and floors in fire protection, however, Item 3.3.1.A-30 does not appear in any Table 2. Please provide documentary support for this position.

NMP Response:

No GALL Items are invoked for concrete in the NMP ALRA since it is the NMP position (as well as that of many other applicants) that plant OE has shown that the GALL AERMs have not been experienced at NMP. All concrete structural components that are WSLR, however, are managed for aging by the SM and FP AMPs, as applicable, and as documented in the ALRA.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-048	3.3.1.B-05-01K	Mazzaferro, Pet	E Mail (9/12/0	Typo/Editorial	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.3.2.B-5

NRC Issue

On page 3.3-213 of the ALRA, for loss of material from CS bolting in air, the ALRA states that the aging effect is managed using the bolting integrity program, this is not consistent with the GALL Report which calls for a plant specific AMP. Please clarify the assignment of Note A for this line item?

NMP Response:

The ALRA did not identify any exceptions to the Bolting Integrity Program (BIP) when submitted on July 14, 2005. However, NMP's September 15, 2005, letter identified an exception to this program based upon the ASME code edition being used. As such, for each applicable Table 2 line item crediting the BIP, the note will be changed from A to B. Additionally, for each Table 1 line item addressing the BIP, the discussion column will be revised to state consistent with NUREG-1801, with exceptions (see Appendix B2.1.36). The following ALRA tables are affected by these changes.

Table 1 Line Items	Table 2 Line Items			
3.1.1.A-26				
3.1.1.B-26	3.1.2.A-3	3.2.2.B-1	3.3.2.A-20	3.4.2.A-7
3.2.1.A-18	3.1.2.A-4	3.2.2.B-2	3.3.2.A-24	3.4.2.B-1
3.2.1.B-18	3.1.2.A-5	3.2.2.B-3	3.3.2.B-21	3.4.2.B-2
3.3.1.A-24	3.1.2.B-3	3.2.2.B-4	3.3.2.B-24	3.4.2.B-3
3.3.1.B-24	3.1.2.B-4	3.2.2.B-5	3.3.2.B-30	3.4.2.B-4
3.4.1.A-08	3.1.2.B-5	3.2.2.B-6	3.4.2.A-2	3.4.2.B-5
3.4.1.B-08	3.2.2.A-1	3.3.2.A-10	3.4.2.A-4	3.4.2.B-6
3.5.1.A-33	3.2.2.A-2	3.3.2.A-17	3.4.2.A-5	3.4.2.B-7
3.5.1.B-33	3.2.2.A-3	3.3.2.A-18	3.4.2.A-6	3.5.2.C-1

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-049	3.3.1.B-07-01K	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.3.2.B-28

NRC Issue

On page 3.3-279 of the ALRA, tanks of the Standby Diesel Generator Fuel Oil System are managed using the Fuel Oil Chemistry Program, which takes an exception to the GALL Report. Please revisit the note assigned.

NMP Response:

The Notes should be B. A similar situation exists in Table 3.3.2.A-7 and it will be revised accordingly.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-050	3.3.1.B-15-01K	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	9/20/2005	CLOSED

LRA_Section T 3.3.2.B-29

NRC Issue

On page 3.3-282 of the ALRA, GALL v2 item VII.C1.4-a is cited but 3.3.1.B-15 is applied instead of an item that uses open cycle cooling water. Please confirm that this is intended.

NMP Response:

The Table 1 Item should be 3.3.1.B-17.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-052	**3.3.1.B-19-01K**	**Fallin, Mike**	**E Mail (9/12/0**	**Clarification**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.3.1.B**

NRC Issue

On page 3.3-103 of the ALRA, for components in the compressed air system, the Gall Report recommends using the Compressed Air Monitoring Program. None of the Table 2 items use the Compressed Air Monitoring Program to manage the loss of material due to general and pitting corrosion. Yet the discussion section of this Table 1 item claims to be "consistent with GALL" with exceptions. Please clarify why this is consistent with GALL since every application of this Table 1 item is an exception to GALL.

NMP Response:

The introductory sentence of the Discussion column for 3.3.1.B-19 will be revised to read: "NMP2 does not have a Compressed Air Monitoring Program (see Appendix B2.1.14, Compressed Air Monitoring Program); therefore, the NMP2 Compressed Air System credits the following AMPs:"

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-053	**3.3.1.B-19-02K**	**Fallin, Mike**	**E Mail (9/12/0**	**Clarification**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.2.2.B-5**

NRC Issue

On page 3.3-214, the ALRA states that loss of material from piping and fittings of the compressed air system is to be managed using Appendix J and OTI AMPs. The GALL Report recommends a program consistent with XI.M24, "Compressed Air Monitoring." This AMP comprises inspection, monitoring, and testing of the entire system, including (a) frequent leak testing of valves, piping, and other system components, especially those made of carbon steel; and (b) preventive monitoring that checks air quality at various locations in the system to ensure that oil, water, rust, dirt, and other contaminants are kept within specified limits. Neither the NMP Appendix J nor the OTI AMP offers prevention or mitigation of aging effects. Please clarify how this is to be accomplished or provide the basis for NMP determination that aging management of these components will be adequate.

NMP Response:

See the response to audit item NMP-AI-052 (3.3.1.B-19-01K). The only piping and fittings and valves that credit the Appendix J and OTI Programs are those that make up Containment penetrations. These AMPs were selected based on the resolution of previous audit questions.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-054	3.3.1.B-19-03K	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.3.2.B-5

NRC Issue

On page 3.3-215 and -216, the LRA states that loss of material from valves of the compressed air system is to be managed using Appendix J and OTI AMPs. The GALL Report recommends a program consistent with XI.M24, "Compressed Air Monitoring." This AMP comprises inspection, monitoring, and testing of the entire system, including (a) frequent leak testing of valves, piping, and other system components, especially those made of carbon steel; and (b) preventive monitoring that checks air quality at various locations in the system to ensure that oil, water, rust, dirt, and other contaminants are kept within specified limits. Neither the NMP Appendix J nor the OTI AMP offers prevention or mitigation of aging effects. Please clarify how this is to be accomplished or provide the basis for determination that aging management of these components will be adequate.

NMP Response:

See the response to audit item NMP-AI-052 (3.3.1.B-19-01K). The only piping and fittings and valves that credit the Appendix J and OTI Programs are those that make up Containment penetrations. These AMPs were selected based on the resolution of previous audit questions.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-055	3.3.1.B-23-01K	Fallin, Mike	E Mail (9/12/0	Typo/Error	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.3.2.B-28

NRC Issue

On page 3.3-279 of the ALRA, loss of material from the CS FO tank is to be managed using the PM program. Please confirm that all surfaces of the tank are accessible for visual inspection.

NMP Response:

The line item for the tank that addresses external surfaces aging management is to be deleted. Table 3.3.2.B-28 has an CS External Surfaces aging management line item that is managed by the Systems Walkdown Progeam. The line item tied to the PM Program was meant to be removed during the Recovery Project.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-056	3.3.2.A-03-01K	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.3.2.A-3

NRC Issue

On pages 3.3-118, -119, and -121 of the ALRA, materials of component types in the NMP1 Compressed Air Systems are identified as being of "Various Metallic Materials" a term also used on page 3.3-15. Please identify the metals included.

NMP Response:

"Various metallic materials" is only used in the LRA where there is an environment of Dried Air or Gas. With this environment, there are no AERMs for any metal that may be used in the system. For the NMP1 Compressed Air System, the "Various Metallic Materials" include carbon steel, red brass, bronse, and copper.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-061	**3.3.2.A-15-01K**	**Fallin, Mike**	**E Mail (9/12/0**	**Typo/Editorial**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.3.2.A-15**

NRC Issue

On page 3.3-162 of the ALRA, External surfaces of "Copper Alloys (Zinc ≤ 15%) and Aluminum Bronze" are identified along with Aluminum and Gray Cast Iron. Please confirm that this item was intended to refer to Cu alloys with zinc > 15%, or explain why the material is grouped with Al bronze. (An editorial review of the use of inequalities may be in order.) Also, please confirm that Al is intended here, as opposed to Al alloys with Cu or Zn.

NMP Response:

The External Surfaces material for CU Alloys and Aluminum Bronze contained a typo for the inequality sign. It should be > instead of ≤. For the Aluminum, the type of Aluminum could not be confirmed. Since neither type of Aluminum used in the ALRA is subject to AERMs in air, the differentiation was not made.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-063	3.3.2.B-05-01K	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.3.2.B-5

NRC Issue

On pages 3.3-214 and -215 (two places) of the ALRA, materials of component types in the Compressed Air Systems are identified as being of "Various Metallic Materials," a term not defined on page 3.3-47. Please identify the metals included.

NMP Response:

"Various metallic materials" is only used in the LRA where there is an environment of Dried Air or Gas. With this environment, there are no AERMs for any metal that may be used in the system. For the NMP2 Compressed Air System, the "Various Metallic Materials" include carbon and stainless steel.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-065	3.3.2.B-14-01K	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.3.2.B-14

NRC Issue

On page 3.3-240 of the ALRA, two different lines for piping and fittings in raw water are identical in all respects except the AMP. The next line is identical except for AMP, GALL v2 item, and note. Do these lines refer to different components, or are all AMPs used to manage a single set of components?

NMP Response:

The Appendix J and OTI Programs apply to one set of piping and fittings while the PM Program applies to a different set of piping and fittings.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-075	3.4.1.B-06-01K	Fallin, Mike	E Mail (9/12/0	Typo/Error	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.3.2.B-33

NRC Issue

On page 3.3-292 of the ALRA, WC and OTI are used to manage loss of material due to FAC. Please clarify the basis for using an AMP other than FAC, and confirm the appropriateness of the associated note.

NMP Response:

For the Filters, the Table 1 Item should be 3.4.1.B-02 instead of 3.4.1.B-06 since the applicable aging mechanisms are general, pitting, and crevice corrosion.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike **Closed and Accepted issues**

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-147	B2.1.11	Fletcher, L.	Audit (9-21-0	Request Informa	9/21/2005	10/26/200	CLOSED

LRA_Section B2.1.11

NRC Issue

In the Unit 1 Closed Cycle Cooling Water (CCCW) PBD we indicate we are consistent with enhancements, however, regarding the Diesel Jacket Water Cooling corrosion inhibitor you state that the concentrations are maintained in accordance with the vendor recommendations rather than the EPRI typical control range. The vendor recommendations for chromate concentration for the Unit 1 Diesels, DG 102 and 103 is outside the EPRI typical limits. What is the basis for acceptability of this position?

NMP Response:

Standards of Discussion:
EPRI TR-107396; *Chromate Concentration Limits for Diesel Jacket Water:*
EPRI 107396, Table 4-2, "Corrosion Inhibitors- Typical Control Ranges for System with Demineralized Water Makeup and Low Leakage" has a line item for chromate "CrO4" and control limits for "Typical Control Range, ppm" of "150 to 300"; and a "pH Control Range" of "8.5-10.5".

Nine Mile Point Controlled Vendor Manual for General Motors Electro Motive Division Diesels, N10197, Tab 2, M.I.-1748 Rev. D; Chromate Concentration Limits for Diesel Jacket Water:
The NMP Unit 1 Emergency Diesel Generators, 102 & 103, use a chromate corrosion inhibitor at a concentration of 1500-2250 ppm as CrO4. The corrosion inhibitor is in the form of sodium dichromate. The vendor corrosion inhibitor concentration is specified as mixing 3.0 grams of the corrosion inhibitor per liter of water. This solution results in a concentration of 3000 ppm of sodium dichromate. This equates to approximately *1430 ppm in the form of Chromate (CrO4).*

NMP1 Closed Cycle Cooling Water Program Basis Document (PBD), Table 5.0-1, section 6.1; Discussion Relative to Chromate Concentration Limits for Diesel Jacket Water:
The PBD indicates that "The DG system control limits for the corrosion inhibitor concentration are based on vendor recommendations rather than the suggested "typical" control range guidelines given in EPRI TR-107396, Table 4.2.".

Comparison of EPRI Direction vs. Vendor Direction for Chromate Control Limits
EPRI recommends control limits of "150-300" ppm of CrO4. The GM diesel vendor recommends a control limit of above 1430 ppm CrO4. The Unit 1 Chemistry Manual control limits, Level 1 Action is"1500-2250" ppm of CrO4. NMP's lower CrO4 control limit is above the EPRI CrO4 upper limit, (1500 vs. 300) and is therefore not consistent w/ EPRI, but is consistent with the vendor recommendation for the concentration of CrO4.

Unlike the pH value, the EPRI CrO4 recommended concentrations are specified as "Typical". This indicates flexibility in the concentration, provided any possible detrimental effects of high chromate concentrations are not incurred. EPRI TR-107396 page 4.5, section 4.3.2 does not recommend CrO4 concentrations above 300 ppm due to possible detrimental effects on pump seals. This basis is stated twice on page 4-5 as "The 300 ppm maximum is due to the degradation of pump seals caused by high chromate levels (above 500 ppm)" and "Above approximately 500 ppm as CrO4, chromate can degrade pump seals." However, on the same page EPRI acknowledges that higher concentrations are used, where it states "It should be noted that one NSSS vendor recommends 1000 ppm CrO4 on the initial fill."

Per EPRI 107396, the upper limit of 300 ppm is based on NACE International Report 7G181, "Investigation of the Effects of Corrosion-Inhibiting Treatments on Mechanical Seals in Recirculating Hot Water Systems". A review of the report indicates that there are substantial differences between the testing configuration and environments used from those conditions experienced by the NMP diesel pump seals.

Some of the more significant examples include:
a. Based upon NMP procedure N1-IPM-079-002, the NMP diesel cooling water normal operating temperature is 185-190 degrees F; the NACE tests were initially performed at 250 degrees, but the temperature was subsequently lowered to 225 degrees to obtain repeatable test results. NACE indicated an adverse sensitivity of the seals to higher temperatures.
b. Based upon M.I. 1748 and NMP procedure N1-CTP-V551 the NMP1 diesels use a mixture of chromate and demineralized water of "such quality that it does not contain excessive solids, hardness salts, or corrosive elements such as chlorides". The NACE test used "Chicago tap water...with medium hardness and dissolved solids". In addition, chlorides were not listed but are commonly found in tap water.
c. Based upon N10052, Section 5.0 the diesel jacket cooling water pumps are high capacity slow speed pumps, nominally 1000 gpm at full load RPM. The NACE test pumps that had a capacity of 20 gpm at 1750 rpm, and were run continuously for 500 hours during the final testing.

NACE "estimates" that at CrO4 concentrations of 1000 to 2000 ppm seal life is reduced by 50%, and does not speculate as to the normal expected life of the seal with CrO4 concentration between 150 and 300 ppm. In summary, there are several variables that are significantly different between the NACE testing bases, and the operating conditions for the NMP diesel pump seals that can affect pump seal reliability other than the CrO4 concentration.

Operating Experience
NMP has researched the industry Operating Experience. It has been determined that Turkey Point Nuclear Station also choose to use the same vendor recommendations for the corrosion inhibitor concentrations in their GM diesel engines, although this choice is not specifically addressed in their License Renewal SER, NUREG 1759. However, Turkey Point personnel have indicated, by memo, that they have not had significant

Kennedy, Mike

Closed and Accepted issues

pump seal problems.

NMP has researched the site specific Operating Experience for incidences of or re-occurring problems with the GM diesel pump seals. Maintenance practice, as evident in Work Request and Work Order history, is to replace the seals in both pumps when one is found to be leaking. It was found that 3 pairs of seals have been replaced on each of the diesels, DG 102 and DG 103, diesels since 1989.

Per the maintenance records, all of the seals were replaced in 1993 due to some observed leakage. All the seals were subsequently replaced in 2003 due to some observed leakage. This is an interval of 10 years. There is no indication of catastrophic seal failures, due to excessive seal wear. The ESI-EMD Owners Group, "Recommended Maintenance Program- Mechanical," revision 3, supports this operating experience and states "leakage at the mechanical seals, which increases gradually, and is easily detectable during either prestart or operating engine inspections." The magnitude of the leakage that prompted the seal replacement is unknown. The owners group recommends seal replacement at 12 years. To manage the potentially adverse effect chromate may have upon mechanical seals, NMP will establish a required seal replacement frequency of 10 years maximum, based upon the pump performance history for the Unit 1 DG 102 and DG 103 jacket water cooling water pump seals.

Summary Conclusion
Although the vendor Chromate limits are greater than the EPRI Chromate limits, the EPRI limits were established to address potential reduction of diesel jacket water cooling pump mechanical seal life. The NMP Unit 1 jacket water cooling pump seals have shown a high degree of reliability. Based upon satisfactory experience the use of the vendor recommended CrO4 concentration is considered appropriate and acceptable given the "typical" guidance in EPRI 107396.

Additional Discussion of Ph Control Limits:
When using CrO4, EPRI recommends pH control limits of "8.5 to 10.5". The GM diesel vendor recommends control limits of 7.5-9.0. The Unit 1 Chemistry Manual control limits, Level 1 Action is "7.5-9" (normally maintained range, with a target value of 8.0). NMP is below the upper EPRI pH limit, 9 vs.10.5 and, therefore, is consistent w/ the EPRI upper limit, and vendor upper limit. NMP is below the lower EPRI pH limit (7.5 vs. 8.5) and is not consistent w/ EPRI, but is consistent with the vendor lower limit.

Based upon input from a NMP Chemistry subject matter expert, this lower pH limit is to be expected and is consistent with vendor recommended CrO4 concentration of 1500-2250 ppm. As the CRO4 concentration increases the pH of the solution decreases. Since the NMP CrO4 concentrations are higher than those given in the EPRI 107396 the pH will also be lower than the EPRI pH value, however, the NMP pH value of 7.5 is consistent with the vendor recommendation.

Reference: Technical Manual #: N1 E14700 ENGINE 001, Tab 2, General Motors Electro Motive Division

Kennedy, Mike — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-148	B2.1.11	Fletcher, L.	Audit (9-21-0	Request Informa	9/21/2005	10/26/200	CLOSED

LRA_Section **B2.1.11**

NRC Issue

Within Operating Experience detailed in the NMP2 CCCW PBD on page 53 of 55 within the section describing Unit 2 Diesel Jacket Water Cooler Heat Exchangers Tube Pitting /Thinning, it describes future replacement of the Division I, II & III heat exchangers with upgraded models.

a. Why are these replacements being performed?
b. Was the cause driving the replacement addressed in the Open Cycle Cooling Water Program?
c. If Program adjustment was made will those measures prevent future re-occurrence?

Please provide a high level summary

NMP Response:

a) Why are these replacements being performed?

Inspection of the Division III jacket water heat exchanger in 2004 determined a need to plug 21 tubes due to degradation. The degradation was estimated to have increased 10-20% over a 6-year period. As detailed in DER 2004-4918, replacement of the all Unit 2 jacket water heat exchangers was recommended and subsequently approved. Replacements using enhanced materials (AL6XN) are currently planned for the fall of 2006 for the Division III heat exchanger and RF11 and RF12 for Division I and Division II.

Corrosion of copper alloy tubes used in a lake water environment has been noted in previous OE's (OE13339 and OE14539). The corrosion is magnified in low flow or stagnant systems. Replacement with a like-for-like material was shown in the OE's to be ineffective.

b) Was the cause driving the replacement addressed in the Open Cycle Cooling Water Program?

The cause identified in DER 2004-4918 was attributed to the use of inhibited admiralty brass tubes in a low flow/stagnant raw water environment. The replacement activity is driven by the need to correct the design deficiency and was not directly addressed in the Program.

c) If Program adjustment was made, will those measures prevent future recurrence?

As detailed in DER 2004-4918, Program adjustments were made to perform more frequent inspections, cleaning and eddy current testing of all Unit 2 DG jacket water coolers on an interim basis until replacement. Additionally, procedure changes were made to not allow the cleaning steps in the Division III heat exchanger PM to be N/A'd. Following replacement, new cleaning and inspection frequencies will be determined based on performance monitoring of the new heat exchangers.

Change of the material type to a material less susceptible to corrosion will help prevent future recurrence. Replacement of the Unit 1 jacket water heat exchangers in February 2002 with AL6XN materials has thus far proven to be successful.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-149	B2.1.11	Fletcher, L.	Audit (9-21-0	Request Informa	9/21/2005	10/26/200	CLOSED

LRA_Section **B2.1.11**

NRC Issue

The U-1 CCCW PBD identifies 4 or 5 DERs related to wall thinning in the RBCLC heat exchangers. With respect to the problem and cause identified, please describe any adjustments that were needed and made to the OCCW program as a result of the events. Also please identify what type of repairs were made as a result of the DER actions.

NMP Response:

The DER's cited in the U1 CCCW program under RBCLC fall into two categories; heat exchanger tube and shell wall thinning. These issues are also captured in the OCCW Operating Experience summary. As noted in the OCCW Program Basis Document (PBD), heat exchanger inspections have identified corrosion, pitting and tube wall thinning. Results are evaluated and tubes are accepted or plugged and shell base metal repairs are performed as necessary to restore wall thickness.

The increase in trend in 2005 is a result of more thorough inspections of the heat exchanger end bells by the System Engineer. DER 2005-0050 describes pitting and subsequent weld repairs performed to the #11 RBCLC heat exchanger. DER 2005-72 describes a tube wall thinning condition in the same heat exchanger that was remedied by tube plugging. Additionally, the cleanliness of the tubes was found to be less than adequate. A review of RBCLC heat exchanger PM procedure, N1-MPM-070-409 indicated a deficiency in the cleaning of heat exchanger tubes and water boxes. Specifically, the procedure allowed cleaning the tubes by flushing them with water and states only to clean loose debris with demineralized or service water from the water boxes. Utilizing only water on the tubes and water boxes does not remove deposits that lead to corrosion and material degradation. The corrective action for this cause is to revise the RBCLC heat exchanger PM procedure to provide effective methods (.i.e. hydrolaze, high pressure wash, scrapers, etc) to remove all deposits from the heat exchanger tubes and water boxes. The procedure has been revised to incorporate the improved cleaning methods.

Additional changes to the OCCW program as a result of these events include the following:

- Establish a performance based eddy-current test frequency for the RBCLC heat exchangers. Based on the initial INPO AP-913 Classification (critical component, low duty cycle, severe environment), the EPRI PM template identifies an as-required frequency for eddy-current testing. Although not yet established in the PMST data base, eddy-current testing of the RBCLC heat exchangers is presently being performed on an annual frequency. Frequencies will be adjusted as necessary based on trending of the eddy-current test results (reference: Section 4.4 of NMPNS-HX-001, Generic Letter 89-13 Heat Exchanger Program Plan).

- Revision to all the OCCW heat exchanger PM procedures to perform inspections in accordance with S-TDP-REL-0102, Service Water Heat Exchanger Inspection Guide

In preparing Aging Management Programs, NMP recognized that eddy-current test frequencies and heat exchanger inspection criteria needs to be incorporated into procedures. This has been documented as an enhancement in amended LRA Section B2.1.10. The enhancement reads "Revise the NMP1 and NMP2 preventive maintenance and heat transfer performance test procedures to incorporate specific inspection criteria, corrective actions, and frequencies."

Finally, an open item in the correction action program (ref: DER NM-2005-685) for Engineering is to perform an evaluation to determine the most cost beneficial approach to correcting the heat exchanger corrosion (i.e. should corrosion protection be added, should a coating be applied to the interior surface of the end bell or should weld buildup be performed every +/-15 years). This evaluation due date is 12/31/05. Any actions resulting from this evaluation will be incorporated into the OCCW program plan as necessary.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-151	B2.1.18	Senska, C.	Audit (9-21-0	Request Informa	9/21/2005	10/26/200	CLOSED

LRA_Section **B2.1.18**

NRC Issue

Describe and justify how the Fuel Oil Chemistry Program is consistent with the GALL with relation to the addition of fuel oil additives (biocides, stabilizers, and corrosion inhibitors) in the fuel oil storage tanks at Unit 1 and Unit 2? Please confirm the approach to be used for tank bottom thickness measurements.

NMP Response:

NMP initial position regarding the addition of biocide, stabilizers and corrosion inhibitors was that compliance with the GALL (Preventive Actions) was satisfied pending enhancement. This conclusion was based on the Fuel Oil Program containing acceptance criteria that would initiate an *evaluation for addition of a biocide, stabilizer and/or corrosion inhibitor. Further review of the Fuel Oil Program* versus the GALL (Preventive Actions) has resulted in an additional exception where compliance, pending enhancement, was initially stated.

NMP monitors fuel quality in part through the analysis of particulate contamination. Particulate contamination is indicative of micro-organisms and corrosion products. The GALL states in part that fuel quality is maintained by the addition of biocides, stabilizers and corrosion inhibitors. NMP uses acceptance criteria for particulate analysis to initiate an evaluation for the addition of biocides, stabilizers and/or corrosion inhibitors. The particulate analysis acceptance criteria combined with current program periodic cleaning of the tanks and removal of water, if detected, is considered sufficient to manage the aging effects of concern.
Exception : Nine Mile Point takes exception to the addition of biocides, stabilizers and corrosion inhibitors to the diesel fuel oil storage tanks (GALL XI.M30, Preventive Actions). Currently, if NMP2 particulate results exceed acceptance criteria, then biocides, stabilizers and/or corrosion inhibitors will be evaluated for addition as required. NMP1 will perform the same evaluation pending incorporation of an identified enhancement.

Tank bottom measurements are performed by UT or other industry recognized methods.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-117	B2.1.26-1K	Fallin, Mike	Audit (9-19-0	Request Informa	9/19/2005	10/26/200	CLOSED

LRA_Section B2.1.10

NRC Issue

Provide justification for the changes to the Section 3 Tables as listed in the September 15th letter.

NMP Response:

The Attachment with ALRA changes that is to be included in a replacement letter for the 9/15 letter (NMP1L 1985) will be provided to the Audit Team during their return visit on 10/24 - 10/26.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-118	**B2.1.26-2**	**Haws, Ken**	**Audit (9-19-0**	**Clarification**	**9/19/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.10**

NRC Issue

With respect o the response to NMP-AI-025 (NRC Issue 3.2.1.A-12-01P), describe which AMRs change and how the changes will be reflected in the LRA.

NMP Response:

The only AMR affected by the response is that pertaining to the Containment Spray System, where the heat exchanger aging effects requiring management will be re-assigned to the Open-Cycle Cooling Water (OCCW) Program. This change is already identified in correspondence letter NMP1L 1985, dated September 15, under the change assigned to "T 3.2.2.A-01".

Also, as discussed in the response to audit question 3.2.1.A-12-01P, the discussion in Table 3.2.1.A (3.2.1.A-12) on page 3.2-23 of the ALRA will be modified to reflect this updated information.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Kennedy, Mike — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-183	3..6.2.C-2-01-TL	Dunn, E.	Audit (11/18/	Technical Issue	11/18/200	11/22/200	CLOSED

LRA_Section 3.6.2

NRC Issue

From Table 3.6.2.C-2 on p. 3.6-11 of the ALRA:

1.For Non-Segregated Bus Insulators comprised of Cement and Metal in an Air environment, please justify the identification of no AERMs and no AMP for these component types.

2.For Non-Segregated Buses fabricated of Aluminum that exist in an Air environment, R1 of the GALL Report identifies AERMs and a plant-specific AMP to manage the AERMs for these components. Please justify the identification of no AERMs but the inclusion of an AMP for these component types.

3.For Switchyard Bus Conductors fabricated of Aluminum that exist in an Air environment, R1 of the GALL Report identifies AERMs and a plant-specific AMP to manage the AERMs for these components. Please justify the identification of no AERMs and no AMP for these component types.

NMP Response:

1. For the cement portion of these insulators, since the NMP Non-Segregated Bus Inspection Program does include these insulators, the Cement line item for the Non-Segregated Bus Insulators in ALRA 3.6.2.C-2 will be revised to include the Loss of Insulation Resistance AERM in the AERM Column, the Non-Segregated Bus Inspection Program in the AMP Column, and Note J, 1 in the Notes Column. Even though this will make the Non-Segregated Bus Insulators consistent with R1 of the GALL, the GALL Item and Table 1 Item Columns are left blank and Note J, 1 is required since the NMP ALRA is based on R0 of the GALL, which does not identify these components.

Similarly for the metal portion of these insulators, since the Non-Segregated Bus Inspection Program does include the metal portion of the insulators, the Metal line item for the Non-Segregated Bus Insulators in ALRA 3.6.2.C-2 will be revised to include the Loss of Insulation Resistance AERM in the AERM Column, the Non-Segregated Bus Inspection Program in the AMP Column, and Note J, 1 in the Notes Column. Even though this will make the Non-Segregated Bus Insulators consistent with R1 of the GALL, the GALL Item and Table 1 Item Columns are left blank and Note J, 1 is required since the NMP ALRA is based on R0 of the GALL, which does not identify these components.

2. In R1 of the GALL Report, the AERM that is identified for Metal Enclosed Bus/ Connections is Loosening of Bolted Connections due to thermal cycling and ohmic heating. The NMP ALRA has identified this AERM in the 3rd Component Type line item in Table 3.6.2.C-2. The line item before it for the Bus itself is not in the GALL Report. The reason that the AERM for the Aluminum Bus in Air is identified as "None" is because the extent of the Loss of Material AERM that applies to the material of aluminum in an air environment is minimal. Aluminum forms a passivating oxide layer in an air environment that protects the base metal against further oxidation/corrosion. This minimal "loss of material" does not propagate and does not affect the intended function of the bus/connections.

3. The Switchyard Bus Conductors at NMP are made of aluminum. As such, as addressed in the previous response, these are no corrosion-related AERMs since aluminum forms a passivating oxide layer which arrests further oxidation/corrosion.

At the time the original NMP LRA was prepared, R0 of the GALL did not recognize LOM due to wind-induced abrasion as an AERM for Switchyard Bus Conductors. The operating experience at NMP relative to wind induced abrasion and fatigue of these conductors is that none has been observed. Because of the design of the tubular conductors, significantly higher wind conditions than those that typically occur at NMP would be needed to cause wind-related degradation to them. For these reasons, it is NMP's opinion that LOM is not an AERM that needs to be included for aging management because it is not significant enough to adversely affect the ability of these conductors to perform their intended function.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Le, Ngoc (Tommy) — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-184	**3.6.2.C-4-01-TL**	**Dunn, E.**	**Audit (11/18/**	**Technical Issue**	**11/18/200**	**11/22/200**	**CLOSED**

LRA_Section **3.6.2**

NRC Issue

From Table 3.6.2.C-4 on p.3.6-13 of the ALRA:

1. For High Voltage Insulators comprised of Cement, Porcelain, and Metal in an Air environment, R1 of the GALL Report identifies AERMs and a plant-specific AMP to manage the AERMs for these components. Please justify the identification of no AERMs and no AMP for these component types.

2. For Aluminum Conductor-Steel Reinforced Transmission Conductors that exist in an Air environment, R1 of the GALL Report identifies AERMs and a plant-specific AMP to manage the AERMs for these components. Please justify the identification of no AERMs and no AMP for these component types.

3. For Aluminum, Steel Transmission Conductor Connections that exist in an Air environment and have an AERM of Loosening of Bolted Connections, please identify the activities that are performed under the Preventive Maintenance Program to manage this AERM.

NMP Response:

1. Since R1 of the GALL Report now includes High Voltage Insulators and since NMP does inspect its high voltage insulators for the indicated AERMs, this line item in ALRA Table 3.6.2.C-4 will be revised to be consistent with the entry for Non-Segregated Bus Insulators in ALRA Table 3.6.2.C-2 documented in the response to Item 1 above with the exception described in the following paragraph.

Relative to the Metal component of the High Voltage Insulators, the operating experience for NMP relative to movement of these lines in the wind is such that it is not occurring except when the wind speeds are abnormally high. This doesn't occur very often and even when it does occur, the line movement is minimal and only for a short period of time. Periodic inspections performed as part of the Preventive Maintenance Program verify this to be true; however, even though the AERM has not been observed to be occurring, because these conductors are lines as opposed to the tubular design of the Non-Segregated Bus Conductors, NMP will revise the ALRA to include the GALL R1 AERM and identify that the Preventive Maintenance Program provides for the aging management of these insulators. This program performs visual inspections and thermography on the conductors and is also starting to experiment with the utilization of corona measurement to further identify possible adverse effects. If it is deemed to be an effective methodology, it will also be adopted as a permanent inspection method.

The 3 line items for High Voltage Insulators at the top of Table 3.6.2.C-4 will, therefore, be revised to include the Loss of Insulation Resistance AERM in the AERM Column, the Preventive Maintenance Program in the AMP Column, and Note J in the Notes Column. Even though this will make the High Voltage Insulators consistent with R1 of the GALL, the GALL Item and Table 1 Item Columns are left blank and Note J is required since the NMP ALRA is based on R0 of the GALL, which does not identify these components.

2. At the time that the original LRA was developed, there was not an AERM for ACSR Transmission Conductors. It is the opinion of NMP, based on plant operating experience and the design of these conductors, that the GALL R1 Loss of Conductor Strength due to corrosion AERM that is identified for these conductors does not occur to the extent necessary to adversely affect the ability of the conductors to perform their intended function. They are fabricated of strand aluminum conductors wound around a steel strand core with no organic insulating material around their outside. For ACSR conductors, any degradation that may occur would begin as a loss of zinc from the galvanized steel core wire strands. Corrosion rates are dependent on suspended particle chemistry, SO2 concentration in air, precipitation, fog chemistry, and meteorological conditions. This is a very slow process that is even slower in rural areas where there is not the concentration of suspended particles and SO2 in the atmosphere that there is in more urban areas. NMP is in a rural area.

The National Electric Safety Code (NESC) requires that tension on installed conductors be a maximum of 60% of the ultimate conductor strength. The NESC also sets the maximum tension to which a conductor can be subjected under heavy load requirements including factors such as wind, ice, and temperature. Ontario Hydroelectric performed tests of 80 year-old transmission conductors that showed a 30% loss of conductor strength. These conductors were typical transmission conductors that can reach 1000 feet in length. At the 30% loss of conductor strength, there is still significant margin between the cited NESC requirement and the actual tested conductor strength. The Transmission Conductor runs at NMP are shorter conductor runs than the long runs included in the Ontario Hydroelectric test. The longest Transmission Conductor run at NMP is approximately 515 feet. Since NMP is located in a rural area, since the tension of these shorter runs would be less than that is typical in transmission conductor runs, and since the Ontario Hydroelectric tests for 80 year-old conductors demonstrated significant margins between NESC requirements and test results, it is the opinion of NMP that for the period of extended operation, the AERM of Loss of Conductor Strength would not be significant enough to affect the intended function of these conductors.

3. Under the Preventive Maintenance Program, the Transmission Conductor Connections undergo visual inspections and thermography testing. Additionally, the use of corona measurement is under experimentation. If it is deemed to be effective, it will also be incorporated as an inspection methodology for these connections.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Le, Ngoc (Tommy)

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-162	B2.1.16-1	Blasiak, J.	Audit (9-22-0	Request Informa	9/22/2005	10/26/200	CLOSED

LRA_Section **B2.1.16**

NRC Issue

Relative to the door inspection frequency enhancement (see fire Protection PBD, Table 4.2-1 listing for the procedure S-NMP-SDM-001) to perform an engineering evaluating to determine proper inspection frequency, is there a previous (established) basis for the frequency as described in the response to GL 86-10?

NMP Response:

NMP has not performed an engineering evaluation for fire door inspection frequencies in accordance with GL 86-10. Door inspection frequencies are prescribed in BTP CMEB 9.5-1 (section C.5.a), which specifies that semiannual (minimum) fire door inspections are required. Additionally, a review of NFPA 80 and GL 86-10 (including supplements) has determined that there is no specific guidance as to fire door inspection frequencies.

Nine Mile Point conducts fire door inspections in accordance with site procedure S-MMP-SDM-001, "Site Doors Maintenance" on a quarterly inspection frequency. These inspections include checks for damage on frame, door skin, door stops, bumpers, limit switches, astragals, hinges, hinge springs, bolts and weather stripping; verification that doors operate correctly and are centered in accordance with NFPA 80. The existing inspection frequency is based on industry standard practices. Daily visual inspections of fire doors are conducted in accordance with procedures N1-FST-FPP-D002, "Daily Fire Door Inspection" and N2-FSP-FPP-D002, "Daily Fire Door Inspection."

Current fire door inspections are not aligned with the bi-monthly frequency in NUREG 1801. As an enhancement for consistency with ISG-04 (currently in the ALRA) and to assure appropriate frequency of fire door inspections, a plant specific engineering evaluation (Fire Protection Engineering Evaluation (FPEE)) will be conducted in accordance with GL 86-10 methodology as described in LR-PBD-FIREPRO Table 5.0-1, Subattribute 3.4. Based on the results of the FPEE, NMP will revise the current fire door inspection frequency.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Le, Tommy

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-156	**B2.1.17-1**	**Blasiak, J.**	**Audit (9-22-0**	**Request Informa**	**9/22/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.17**

NRC Issue

Have corrective and preventative actions for DER NM-2003-1319 been completed. Briefly describe.

NMP Response:

Yes, preventative and corrective actions specified in DER NM-2003-1319 are complete and the DER is closed. This included the following significant actions:

(a) Perform system walkdowns to identify piping sections that may be susceptible to galvanic corrosion or wall thinning.

(b) Create action requests to perform non-destructive exams on selected piping sections.

(c) Inspection of victaulic piping joints at NMP1 and 2.

(d) Complete an overall assessment of fire water system corrosion.

Relative to item (d) above, in response to GALL, Subattribute 5.2 in the Fire Water PBD established the following enhancement: "Revise the PMST database to include performance of periodic re-assessments of the significance of fire water system corrosion as it relates to system functionality and the risk of catastrophic piping failures. This assessment will consider program inspection intervals and include inaccessible and buried portions of the water based system." This PBD enhancement is an integral part of a comprehensive enhancement identified in the ALRA relative to managing LOM.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Le, Tommy

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-157	**B2.1.17-2**	**Blasiak, J.**	**Audit (9-22-0**	**Clarification**	**9/22/2005**	**10/26/200**	**CLOSED**

LRA_Section **None**

NRC Issue

The enhancement in Table 5.0-1 (Sub attribute 0.3) and Table 4.2-1 related to testing or replacement of the sprinkler heads currently states that the inspection or replacement will be performed "on or before" the 50 year in-service date. Based on the expected lead and preparation time, explain how either option could be performed "on" the 50 year inservice date?

NMP Response:

Nine Mile Point agrees that the enhancement in Subattribute 0.3 of Table 5.0-1 in the Fire Water System PBD to replace and/or inspect sprinkler heads "on or before" the 50 year in-service date should be revised to indicate replacement and/or inspection "prior to" the 50 year in-service date.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Le, Tommy

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-158	**B2.1.17-3**	**Blasiak, J.**	**Audit (9-22-0**	**Typo/Editorial**	**9/22/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.17**

NRC Issue

The U-1 Fire Water System PBD states a 50-year date (January 2016) for the first firewater sprinkler inspections or replacement that does not align with the noted January 1969 hydrostatic test date in Table 5.0-1 (Subattribute 0.3).

NMP Response:

Nine Mile Point agrees that the first inspection date for fire water system sprinkler replacements and/or inspections should align with the January 1969 hydro test date for NMP1. Fire Water System PBD, Subattribute 0.3 will be corrected to state that the first inspection for NMP1 will be performed prior to January 2019.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Le, Tommy

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-159	B2.1.17-4	Blasiak, J.	Audit (9-22-0	Request Informa	9/22/2005	10/26/200	CLOSED

LRA_Section **B2.1.17**

NRC Issue

Regarding the Fire Water implementation plan, provide details of your proposed activities for the obstruction investigation described in Table 4.2-1 of the PBD, including the obstruction investigation strategy, data collection and trending, and development of follow-up inspection procedures to mitigate the aging effects.

NMP Response:

To ensure completion of the Fire Water Obstruction Investigation referred to in Fire Water PBD Table 4.2-1 for NMP1 and NMP2, the following activities will be performed (these activities are detailed in the Fire Water PBD and are included within comprehensive enhancements in the ALRA that address internal corrosion, detection of biofouling, and detection of microbiological contamination):

a) Development of initial obstruction investigation procedure(s).
b) Completion of the initial obstruction investigation including data collection, analysis and review.
c) Based on the results of the initial obstruction investigation, procedure changes may be required to include inspection of additional fire zones, if required.
d) Follow-up inspections, if required.

Required corrective actions resulting from initial or follow-up obstruction investigations, including hydraulic flushes or piping replacements, will be addressed by the NMP corrective action program.

The initial obstruction investigation strategy will involve selection of the fire zones based on knowledge of their alternating wet and dry histories and evidence of corrosion products found during previous surveillance testing. Investigation will include (a) sampling at a header drain valve, inspector's test valve or a branch line connection point; (b) MIC analysis of the sample (c) internal examinations of some piping locations and (d) acceptance criteria that can be applied to the MIC analyses and visual examinations that are performed. The acceptance criteria shall include a specific check to ensure that no biofouling exists in the sprinkler systems that could cause corrosion in the sprinkler heads.

As appropriate, based on the results of the initial obstruction investigation, additional piping inspections may be performed. This may include expanding the population of selected fire zones for inspection and development of procedure changes to encompass inspection of the expanded population. If obstruction concerns exist with specific fire zones, corrective actions, such as hydraulic flushes of the fire zones/branch lines and/or piping replacements, will be performed using the guidelines of NFPA 25, Chapter 13, Annexes A and D.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Le, Tommy

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-160	B2.1.17-5	Blasiak, J.	Audit (9-22-0	Request Informa	9/22/2005	10/26/200	CLOSED

LRA_Section **B2.1.17**

NRC Issue

Concerning the overall implementation plan for the Firewater PBD, describe the generic process that will be used to schedule activities and allocate resources.

NMP Response:

A draft Implementation Plan and an Impact Assessment have been prepared that describes specific actions, person-hour estimates and time frame for completing enhancements that are provided in the Fire Water PBD. The following actions represent significant milestones:

1.) Complete approval of new procedure S-TDP-REL-xxxx, Aging Management of Fire Water Systems.
2.) Revise GAP-HSC-02, Cleanliness Controls to include inspections of buried piping.
3.) Revise PM database to include visual inspections and Ultrasonic testing of selected piping locations at NMP1 and 2.
4.) Complete approval of revision to procedures N1-FST-FPW-A011 and N2-FSP-FPW-A007 to improve flush velocities of Fire Hydrants by isolation of divisional valves.
5.) Complete approval of revision to procedures N1-FST-FPW-5A001 and N2-FSP-FPW-5Y001 to include inspection of underground fire water system piping (internal) when excavation is required.
6.) Complete approval of new procedures for obstruction investigation of Fire Water piping.
7.) Complete initial obstruction investigation for NMP1 and NMP2 including data collection, analysis and review.
8.) Complete any required changes to obstruction investigation procedures to include inspection of additional fire zones.
9.) Complete any required follow-up obstruction investigations inspections.
10) The above actions will apply across the board for all proposed enhancement activities.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Le, Tommy — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-161	B2.1.17-6	Blasiak, J.	Audit (9-22-0	Typo/Editorial	9/22/2005	10/26/200	CLOSED

LRA_Section T 2.3.3.A.9-1

NRC Issue

Describe the aging management of the fire hose reel supports to capture the stated changes to the Assessment Summary as attachment 1 of the FW PBD as needed. Add "hose reel supports" under component type column for Hose Station Check activity (Attachment 1) on page 37 of the Fire Water PBD.

NMP Response:

As stated in Sub-attribute 1.1 of Table 5.0-1 in the Fire Water System PBD, hose stations and standpipes are tested in accordance with the following procedures:

- N1-FST-FPW-A008, "Hose Station Valve Operability Test"
- N2- N2-FPM-FPW-R001, "Hose Station Valve Operability Test-High Radiation Areas"
- FPM-FPW-A002, "BOP Hose Station Valve Operability Test"

These three procedures include verification that the hose reel hangers/supports are not loose or missing. However, the inspections do not include a specific check for LOM.

Hose reels associated with Carbon Dioxide systems are tested and inspected in accordance with the following procedures:

- N1-FPM-FPL-C002, "CO2 Hose Reel Visual Inspection And System Operability Test"
- N2-FPM-FPL-A002, "CO2 Hose Reel Visual Inspection And System Operability Test"

These two procedures do not include a specific inspection of the hose reels and their associated component supports for LOM.

A review of the Aging Management Review (AMR) Reports and the ALRA revealed that the Fire Protection Program was credited for NMP2 aging management of the hose reels in both the carbon dioxide and fire water systems; however, "Hose Reels" were not included as a Component Type for the NMP1 Fire Detection and Protection System. Additionally, a review of the ALRA for the component supports associated with each hose reel also revealed that there was not a line item in Table 3.5.2.C-1 for aging management of those supports by the Fire Protection Program.

A review of the Fire Protection PBD revealed inconsistencies with the aging management alignment in Table 2.0-1 and Attachment 1 for these components and their associated inspection procedures. These procedures will be revised to include specific checks for corrosion of each hose reels and associated component support.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Le, Tommy

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-088	3.6.1.C-04-1	Browne/Haws/	E Mail (9/12/0	Clarification	9/12/2005	9/22/2005	CLOSED

LRA_Section T 3.6.1

NRC Issue

Item 4 of Table 3.6.1 of the ALRA, under discussion, the applicant states that no AMP is required for inaccessible medium-voltage (2kV to 15kV) cables (e.g., installed in conduit or direct buried) not subject to 10 CFR 50.49 EQ requirements. The applicant determined that no medium voltage cables, that are potentially susceptible to wetting, provide any license renewal intended function. The staff believes that some circuits (e.g., service water pumps) will be susceptible to wetting and hence an AMP is necessary. Please identify medium voltage cables that are installed in conduits or direct buried and explain how the aging due to wetting will be managed.

NMP Response:

During the audit, NMPNS performed scoping and an aging management review for any cables subject to aging management under GALL XI.E3. The results and required actions are given in the response to NMP-AI-145.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-089	3.6.2.1.4	Browne/Haws/	E Mail (9/12/0	Typo/Editorial	9/12/2005	10/26/200	CLOSED

LRA_Section 3.6.2.1

NRC Issue

Section 3.6.2.1.4 of the ALRA, switchyard components, under aging effect requiring management, states that containment electrical penetrations require management and under aging management program, states that the following aging management program manages the aging effects for the containment electrical penetrations. Why do containment electrical penetrations appear in SBO component section?

NMP Response:

This is a typographical error. Under ALRA Section 3.6.2.1.4, "Aging Effect Requiring Management", the text "The following aging effect, associated with the Containment Electrical Penetrations, requires management:" will be changed to read:
"The following aging effect, associated with the Switchyard Components, requires management:"

Under ALRA Section 3.6.2.1.4, "Aging Management Programs", the text "The following aging management program manages the aging effects for the Containment Electrical Penetrations:" will be changed to read:
"The following aging management program manages the aging effects for the Switchyard Components:"

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-090	3.6.2.C-1-1	Browne/Haws/	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.6.2.C-1

NRC Issue

On page 3.6-9 of the ALRA, conductor connectors are identified as being of "Various Metals," a term not defined on page 3.6-2. Please identify the metals included.

NMP Response:

Conductor connector materials used at NMPNS are copper and aluminum

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-091	3.6.2.C-1-2	Browne/Haws/	E Mail (9/12/0	Clarification	9/12/2005	9/22/2005	CLOSED

LRA_Section T 3.6.2.C-1

NRC Issue

Table 3.6.2.C-1, items 1 and 2 of the ALRA, do not include moisture as environment of cables and connections. Provide technical justification why moisture environment will not effect aging of conductor insulator of electrical cables and connections.

NMP Response:

Heat, moisture and radiation were all considered as potential environments for cables and connections in the aging management review, consistent with the GALL. The LRA will be amended to remove all qualifiers from the environment column in those instances were an "adverse localized environment" is listed.

See the response to Audit Item NMP-AI-121.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-092	3.6.2.C-2-1	Browne/Haws/	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.6.2.C-2

NRC Issue

GALL XI.E4 which incorporated Interim Staff Guidance (ISG)-17. ISG-17 on metal enclosed bus, includes enclosure assemblies as the structure and/or component of metal enclosed bus. Table 3.6.2.C-2 of the ALRA does not include this component. The applicant needs to include this component and identifies any aging management program required to manage the aging effects or provide justification of why enclosure assembly is not included in the structure and/or component category.

NMP Response:

Table 3.6.2.C-2 is being revised to include the 'Bus Duct Enclosure' and 'Seals and Gaskets' Component Types.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-138	3.6.2.C-3-1	Dunn, E.	Audit (9-20-0	Clarification	9/20/2005	10/26/200	CLOSED

LRA_Section T 3.6.2.C-3

NRC Issue

Containment Electrical Penetrations only address various organic polymers. Address AMR and any AMP for metals and inorganic materials (such as cable fillers, epoxies, potting compounds, connector pins, plugs, and facial grommets) associated with non-EQ electrical/I&C penetration assemblies. Provide justification if no AMP is required for the above components.

NMP Response:

Electrical penetrations at NMP1 and NMP2 do not contain any cable fillers, epoxies, potting compounds, connector pins, plugs, or facial grommets within the steel sleeve, and the interior of the penetration is inerted with nitrogen. Aging of the inaccessible seal material used on the ends of the sleeves is managed by the 10CFR50 Appendix J Program.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-139	**B.2.1.34-1**	**Brown, Chris**	**Audit (9-20-0**	**Clarification**	**9/20/2005**	**9/21/2005**	**CLOSED**

LRA_Section **B2.1.34**

NRC Issue

GALL XI.E4 under corrective actions, states that further investigation and evaluation are performed when the acceptance criteria are not met. Corrective actions may include but are not limited to cleaning, drying, increased inspection frequency, replacement, or repair of the affected metal enclosed bus components. If an unacceptable condition or situation is identified, a determination is made as to whether the same condition or situation is applicable to other accessible or inaccessible metal enclosed bus. Nine Mile Point Program B2.1.34, "Quality Assurance Program" does not address the special requirements identified in Program XI.E4. In addition to 10 CFR Part 50, Appendix B, revise corrective actions in B2.1.34 to add specific requirements or provide justification of why these corrective actions are not necessary.

NMP Response:

The LRA section B2.1.34 will be revised to identify specific corrective actions associated with this program. Also the PBD will be updated to reflect the revised wording in the Draft Revision 1 of the GALL (September 2005) under Element 7, "Corrective Action"

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-140	B.2.1.34-2	Dunn, E.	Audit (9-20-0	Clarification	9/20/2005	9/21/2005	CLOSED

LRA_Section B2.1.34

NRC Issue

Under Element 3, Parameters Monitored / Inspected, you have stated that a sample of accessible bolted connections (bus joints and ending devices) will be checked for proper torque. This program also inspects the internal portions of accessible bus ducts for cracks, corrosion, foreign debris, dust buildup, and water intrusion. Does plant specific structure monitoring program inspect the external of the bus ducts for corrosion and bus duct seals for cracking.

NMP Response:

The structural monitoring program inspects the bus duct seals and gaskets for cracking and deformity. The program does not inspect the external of the bus duct as there are no aging effects, as the material is aluminum in an air environment See response to question number 3.6.2.C-2-1.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-141	B.2.1.34-3	Dunn, E.	Audit (9-20-0	Technical Issue	9/20/2005	10/26/200	CLOSED

LRA_Section B2.1.34

NRC Issue

Under Element 3, Parameters Monitored / Inspected, you have stated that a sample of accessible bolted connections (bus joints and ending devices) will be checked for proper torque. This program also inspects the internal portions of accessible bus ducts for cracks, corrosion, foreign debris, dust buildup, and water intrusion.

(1) Does plant specific structure monitoring program inspect the external of the bus ducts for corrosion and bus duct seals for cracking and other deformity?

(2) Vendors do not typically recommend to re-torque of bolted connections unless the joint requires service or the bolted connections are clearly loose. The torque required to turn the fastener in the tightening direction (restart torque) is not a good indication of the preload once the fastener is in service. Due to relaxation of the parts of the joint, the final loads are likely to be lower than the installed loads. Provide a technical justification of how retorquing of bolted connections is a good indicator of the preload once the fastener is in service. The Acceptance Criteria (Element 6) needs to be modified accordingly.

NMP Response:

(1) The structural monitoring program inspects the bus duct seals and gaskets for cracking and deformity. The program does not inspect the external of the bus duct as there are no aging effects, as the material is aluminum in an air environment See response to question number 3.6.2.C-2-1.

(2) NMP agrees with NRC and vendor guidance that re-torquing is not recommended and it will be deleted as an aging management activity from the LRA and Program Basis Document.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-142	B.2.1.34-4	Dunn, E.	Audit (9-20-0	Technical Issue	9/20/2005	9/22/2005	CLOSED

LRA_Section B2.1.34

NRC Issue

Under Monitoring and Trending attribute (Enhancements Element), you state that new provisions will be made to perform either periodic low range resistance checks of the bus ducts or torque checks of a statistical sample of accessible bolted connections. See Question B.2.1.34-3, Item 2 above. Please modified accordingly.

NMP Response:

The torque check test / check option will be deleted. See response to question B.2.1.34-3 (NMP-AI-141).

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-143	B.2.1.34-5	Dunn, E.	Audit (9-20-0	Request Informa	9/20/2005	10/26/200	CLOSED

LRA_Section B2.1.34

NRC Issue

Under Monitoring and Trending attribute (Enhancements Element), you state that new provisions will be made to perform either periodic low range resistance checks of the bus ducts or torque checks of a statistical sample of accessible bolted connections. Explain how statistical sample be determined.

NMP Response:

The sampling size will be determined by using accepted industry practice and / or vendor recommendation.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-120	B2.1.30-01N	Fallin, Mike	Audit (9-19-0	Technical Issue	9/19/2005	10/26/200	CLOSED

LRA_Section B2.1.30

NRC Issue

Explain why low voltage cables associated with the high voltage cables identified as being within the scope of this program are not also within the scope of the program.

NMP Response:

Low voltage cables associated with these systems that are located in a localized adverse environment, and are not already included in the EQ Program, are within the scope of the Non-EQ Electrical Cables and Connections Program.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-122	B2.1.30-02N	Stahl, Leroy	Audit (9-19-0	Technical Issue	9/19/2005	10/26/200	CLOSED

LRA_Section B2.1.30

NRC Issue

Justify the differences between scopes of the Unit 1 and Unit 2 XI.E2 Programs.

NMP Response:

Evaluation of Differences Between the Unit 1 and Unit 2 In-Scope, Non-EQ High-Voltage Instrument Cables

In Scope: Safety Related (a)(1); Non-safety related impacting SR (a)(2); or NRC required program (a)(3).

1. Source Range Neutron Monitoring (SRM)
- The Unit 1 SRMs do not meet the screening criteria for inclusion within the scope of LR. The Unit 1 SRMs perform no safety function and are NSR.
- The Unit 2 SRMs are "not essential for the safety of the plant" per UFSAR Section 7.7.1.7.2. The LR NMS Scoping report lists the SRMs as in-scope. This is based on the U2 MRule Scoping Matrix which lists the SRMs as SR. As a result, the Unit 2 SRMs are in the scope of LR. However, the cables are in the EQ program and, therefore, are not in the AMP.

Action: Initiated CR NM-2005-3688 to document discrepancy between MRule scoping and safety classification of SRMs.

Regardless of the above discrepancy, both U1 and U2 SRM cables are correctly not included in the AMP.

2. Intermediate Range Neutron Monitors (IRM)
- The Unit 1 IRMs are in scope of LR. In addition, the cables are not in the EQ program and are therefore, in the AMP.
- Similarly, the Unit 2 IRMs are in scope of LR, and the cables are not in the EQ program and are therefore, in the AMP.

3. Power Range Neutron Monitoring (PRNM)
- The Unit 1 PRNMs are in scope and the cables are not in the EQ program and therefore, the PRNM cables are included in the AMP.
- The Unit 2 PRNMs are in-scope and the cables are in the EQ Program and therefore, the cables are not included in the AMP.

4. Traversing In-Core Probes (TIP)
- The Unit 1 TIPs do not meet the screening criteria for inclusion within the scope of LR.
- Similarly, the Unit 2 TIPs do not meet the screening criteria for inclusion within the scope of LR.

The TIP systems at both units do not perform or affect any safety functions and are not required to support any of the 5 regulated events.

5. Stack Effluent Radiation Monitoring
- The Unit 1 stack effluent radiation monitoring system (including RAGEMS) does not meet any of the screening criteria for inclusion within scope of LR.
- A review of the Unit 2 stack gaseous effluent monitoring system (GEMS) Scoping and Screening report has determined that it also does not meet the screening criteria for inclusion within scope of LR.

Action: NER-2E-033 and the PBD will be revised to reflect this. This will align both units' stack effluent radiation monitoring systems relative to LR.

6. Reactor Building Ventilation Monitoring
- The Unit 1 reactor building ventilation monitoring cables are in the EQ program and are not included in the AMP.
- The Unit 2 reactor building vent monitor cables are not in the EQ program and are included in the AMP.

7. Process Radiation Monitoring (PRM)

The differences between the units for PRM involve the following system:
Service Water Discharge (Effluent)
- U1 Component-NSR/Scoping Report criteria-none/Screening Report- not in-scope
- U2 Component-SR. Because Service Water provides cooling for SR components at U2, it screens in for LR.

Both U1 and U2 are consistent concerning miscellaneous PRM radiation monitors. The components are SR screened in for LR, and components that are NSR, do not impact SR and are not one of the 5 NRC programs, screened out. Some U2 safety related PRM systems are also in the EQ program and are, therefore, not included in the AMP.

Action: The following systems were originally listed as in-scope in NER-2E-033. A review has determined that they screen out and should not be listed as in-scope. The NER and the PBD will be revised to correct this:
- Spent Fuel Pool Rad Monitor (2SFC-RE142)
- RBCLC Rad Monitor (2CCP-RE115, 2CCP-RE131)
- Standby Gas Rad Monitor (2GTS-RE105)

Nguyen, Duc

Closed and Accepted issues

8. Area Radiation Monitoring (ARM).
• Unit 1: ARMs that are SR and are not in the EQ Program have screened in for LR and are included in the AMP. NSR ARMs have screened out and the cables of these monitors are NSR. These cables are not, therefore, in the EQ program or this AMP.

• Unit 2: As with Unit 1, many of the Unit 2 ARMs do not meet the screening criteria for inclusion within the scope of LR since they are NSR. For those that are SR, their cables have been included in the AMP.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-123	B2.1.30-03N	Houston, Scott	Audit (9-19-0	Technical Issue	9/19/2005	10/26/200	CLOSED

LRA_Section B2.1.30

NRC Issue

Verify that the tests performed by the procedures credited in the XI.E2 PBD include the entire cable and connection (the entire loop).

NMP Response:

The credited procedure's steps listed in PBD pages 18, 19 and 20 (GALL Attribute 6.1, Acceptance Criteria) were reviewed to ensure that all cables and connections of the system under test were included in the test performed. For each procedure credited, it has been verified that all in-scope XI.E2 cables and connections are tested through the performance of the credited procedure's steps.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-124	B2.1.30-04N	Houston, Scott	Audit (9-19-0	Technical Issue	9/19/2005	10/26/200	CLOSED

LRA_Section **B2.1.30**

NRC Issue

Summarize and explain how indirect testing and direct testing will be performed on in-scope XI.E2 cables and connections.

NMP Response:

During the performance of the credited procedures, indirect testing is performed in that the cable and connectors must be functional for the surveillance test, calibration procedure, or PM task to be completed successfully. If the credited procedure's steps listed in PBD Table 5.0-1, Attribute 6.1 fail to meet the acceptance criteria, a Condition Report (CR) will be generated per PBD Table 5.0, Attribute 7.1, Corrective Actions. The corrective actions may include evaluation of the cable systems through direct testing. The direct testing methods include: insulation resistance checks, current vs. voltage (I/V) plots, and/or time domain reflectometry (TDR). Thermography is also being used elsewhere and is discussed as a valid test of energized equipment in EPRI 100xxxx and the GALL. The results of the direct testing method will be evaluated for indications of aging degradation.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-125	B2.1.30-05N	Houston, Scott	Audit (9-19-0	Clarification	9/19/2005	10/26/200	CLOSED

LRA_Section B2.1.30

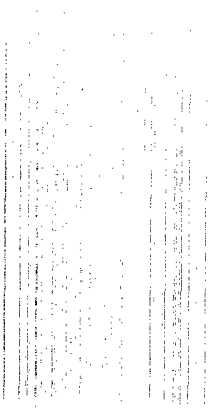
NRC Issue

Provide clarification of the last sentence of the second paragraph of the identified enhancements for this program that states: "The test frequency of these cables shall be determined based on engineering evaluation not to exceed every 10 years."

NMP Response:

The cited sentence from the Section B.2.1.30 enhancements (as well as the same sentence in Sections A1.1.25 and A2.1.25) will be revised as follows:

"The test frequency of these cables shall be determined based on engineering evaluation, but the test frequency shall be at least once every ten years."



NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

Nguyen, Duc — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-145	**B2.1.31**	**Finnerty, P.**	**Audit (9-21-0**	**Request Informa**	**9/21/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.31**

NRC Issue

For Unit 1 and Unit 2, identify any non-EQ medium voltage cables (e.g., 2kV to 35 kV) that are within the scope of license renewal, energized greater than 25% of the time, and located underground.

NMP Response:

XI.E3 Program – Inaccessible Non-EQ Medium-Voltage Cables

Tracking Nos.: NMP-AI-145 and NMP-AI-088

Issue Description

For Unit 1 and Unit 2, identify any non-EQ medium-voltage cables (e.g. 2 kV to 35 kV) that are within the scope of License Renewal, energized greater than 25% of the time and located underground. Address plant service water systems in your response.

Response

Unit 1

The Nine Mile Point Unit 1 (NMP1) Nuclear Station does not have any inaccessible medium-voltage cables within the scope of License Renewal that are exposed to significant moisture simultaneously with significant voltage. The only medium-voltage cables at NMP1 that are installed underground and are energized greater than 25% of the time are cables used to power systems that are not within the scope of License Renewal or to power equipment that is not related to any plant systems.

NMP1 Service Water System (includes the Emergency Service Water System)

The normal service water system pump motors are powered via medium-voltage cables. These cables are routed in cable trays, wall sleeves and/or conduit that are installed inside the NMP1 Turbine Building and Screenhouse. Therefore, these cables are not installed underground. The emergency service water system pump motors are powered via low-voltage (< 2 kV) cables and, therefore, these cables are not in the scope of the XI.E3 program.

Unit 2

The Nine Mile Point Unit 2 (NMP2) Nuclear Station does have inaccessible medium-voltage cables that are within the scope of License Renewal as these cables are exposed to significant moisture simultaneously with significant voltage. What follows is a listing of these cables, their associated equipment and their associated voltage levels. This listing was developed by reviewing the following License Renewal scoping criteria:

1. Is the cable a medium-voltage (> 2 kV to < 35 kV) cable?
2. Is the cable inaccessible?
3. Is the cable a non-EQ cable?
4. Is the cable associated with a system within the scope of License Renewal?

If the answer is Yes to any of the above questions, then, the following aging management review criteria is applied:

1. Is the cable installed underground?
2. Is the cable energized greater than 25% of the time?

If the answer is Yes to both questions 1 and 2 above, then aging management is required.
List of NMP2 Cables Within the Scope of License Renewal that Require an Aging Management Program

Cable Number	Associated Equipment	Cable Voltage Level
2CWSANJ300	Circulating Water Pump	13.8 kV
2CWSBNJ300	Circulating Water Pump	13.8 kV
2CWSCNJ300	Circulating Water Pump	13.8 kV
2CWSDNJ300	Circulating Water Pump	13.8 kV
2CWSENJ300	Circulating Water Pump	13.8 kV
2CWSFNJ300	Circulating Water Pump	13.8 kV
2NNSXHJ301	Auxiliary Step-Down Transformer	13.8 kV
2NNSXNJ302	Auxiliary Step-Down Transformer	13.8 kV

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

2NNSXNJ304	Auxiliary Step-Down Transformer	13.8 kV
2NNSYNJ301	Auxiliary Step-Down Transformer	13.8 kV
2NNSYNJ302	Auxiliary Step-Down Transformer	13.8 kV
2NNSYNJ304	Auxiliary Step-Down Transformer	13.8 kV
2SWPAGH300	Service Water Pump	4.16 kV
2SWPBYH300	Service Water Pump	4.16 kV
2SWPCGH300	Service Water Pump	4.16 kV
2SWPDYH300	Service Water Pump	4.16 kV
2SWPEGH300	Service Water Pump	4.16 kV
2SWPFYH300	Service Water Pump	4.16 kV

NMP2 Service Water System

The service water system pump motors are powered via medium-voltage cables from the safety related 4.16 kv switchgears. These cables are routed underground in duct lines. Since these cables are installed underground and the service water system pump motors are energized greater than 25% of the time, these cables require aging management. These cables are in the scope of the XI.E3 program.

Actions

Add "NON-EQ Inaccessible Medium Voltage Cables Program (NMP2 only)" to the NMP ALRA. The program will be consistent with GALL Section XI.E3, with enhancements, as follows:

(1) Expand the scope of the existing procedures to provide for manhole inspections and water removal,
(2) Develop a new testing procedure specific to those cables requiring aging management under this Program. The specific type of test performed will be a proven test for detecting deterioration of the insulation system due to wetting as described in EPRI TR-103834-P1-2, such as power factor, partial discharge, or other testing that is both state-of-the-art and consistent with the latest industry guidance at the time the test is performed.
(3) establish requirement to test cables subject to aging management prior to, and every 10 years during, the period of extended operation, and
(4) establish maintenance requirement to inspect and remove water, as necessary, from manholes serving cables subject to aging management. The inspection frequency will be based upon actual plant experience with water accumulation in the manhole, but in any event, will be at least once every two years. The first inspection will be completed prior to the period or extended operation.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-121	**B2.1.8-01H**	**Fallin, Mike**	**Audit (9-19-0**	**Clarification**	**9/19/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.6.2.C-1**

NRC Issue

Why isn't moisture identified as one of the parameters in an adverse localized adverse environment along with the other parameters of temperature and radiation?

NMP Response:

In Table 3.0-1 of the ALRA, there are two similar environments. One of these is "Adverse localized environment caused by heat or radiation" and the other is "Adverse localized environment caused by heat, radiation, or moisture in the presence of oxygen." These will be consolidated into the second environment of "Adverse localized environment caused by heat, radiation, or moisture in the presence of oxygen" . Tables 3.0-1, 3.6.2.C-1, and 3.6.2.C-3 will be revised to incorporate the consolidated environment in place of the first.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-128	**B3.1**	**Shanahan, B**	**Audit (9-20-0**	**Clarification**	**9/20/2005**	**10/26/200**	**CLOSED**

LRA_Section **B3.1**

NRC Issue

Does the licensee intend to perform reanalysis of EQ components to extend the qualified lives into the period of extended operation? If so, address the reanalysis attributes listed in the GALL in Section B3.1 of the ALRA and include them in the Program Basis Document.

NMP Response:

Yes. NMPNS intends to perform reanalysis of EQ components to extend equipment qualified life into the the extended operation period. The following ALRA will be revised appropriately and it will be addressed in the Program Basis Document to be developed.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-129	B3.1	Shanahan, B	Audit (9-20-0	Clarification	9/20/2005	9/21/2005	CLOSED

LRA_Section B3.1

NRC Issue

Does NMP have plans to monitor temperature in order to extend qualified life, if that option is chosen?

NMP Response:

Yes. Recognizing that thermal aging limits are typically limiting from a component aging limit standpoint, NMP plans to incorporate actual plant temperature monitoring data into the aging evaluation reanalyzes for EQ components with a qualified life of greater than 40 years . This will be similar to the existing temperature monitoring data that was used to assess equipment qualified life during the current operating period, and will accurately represent existing plant thermal conditions.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Nguyen, Duc

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-009	3.1.1.A-29-01K	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section General

NRC Issue

On page 3.3-177 of the ALRA, cracking of CASS valves in treated water is to be managed using ISI and WC programs. The GALL report recommends a program consistent with the BWR SCC and WC programs. Please clarify the basis for using ISI in lieu of BWR SCC.

NMP Response:

The RWCU CASS Valves with the AERM of Cracking located on p. 3.3-177 of the ALRA are the system isolation valves. Consistent with the applicable GALL Item, IV.C1.3-c, the AMPs should be BWRSCC and WCC. Consistent with the GALL, the only SS Class I valves with the AERM of Cracking that are not included in the BWRSCC Program are small bore valves. The ASME Section XI IWB/C/D Program will be replaced with the BWRSCC Program for the indicated item.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-018	3.2.1.A-02-01P	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.4.2.A-4

NRC Issue

On page 3.4-46 of the ALRA, piping and fittings are evaluated for loss of material. Please clarify how the Water Chemistry Control Program will be used to mitigate aging of steel piping and fittings in demineralized, untreated water. (Also confirm GALL v2 item intended is V.D2.1-e.)

NMP Response:

This line item applies to the portion of the ADS line that extends into the water that is maintained in the Torus. This water is actually treated water that comes from the Condensate Storage Tank; therefore the Water Chemistry Program does mitigate LOM. The Environment for CS P&F in DUW from Table 3.4.2.A-4 will be changed from DUW to TW<140°F.

Patterson, Malcolm **Closed and Accepted issues**

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-021	**3.2.1.A-06-01P**	**Mazzaferro, Pet**	**E Mail (9/12/0**	**Clarification**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.2.1.A**

NRC Issue

NOTE: This question applies to NMP2 also. (Page 3.2-30).

On page 3.2-22 of the ALRA, the LRA states that loss of material due to MIC is not applicable for NMP1 ESF systems. Please provide the basis for this assertion.

NMP Response:

The subject Table 1 line item, 3.2.1.A-06, applies to 'Containment Isolation Valves and Associated Piping'.
The NMP1 ESF systems are comprised of the Automatic Depressurization (ADS), Containment Spray (CNT SP), Core Spray (CS), and Emergency Cooling (EC) systems.

For the ADS system, there are no CIVs. Therefore, this line item is not applicable.
For the CNT SP system CIVs, the environment is Air. Therefore, MIC is not applicable.
For the Core Spray system CIVs, the environment is treated water from the CSTs, which is reactor grade. Therefore, MIC is not applicable.
For the EC system CIVs, the environment is reactor water and steam. Therefore, MIC is not applicable.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-022	**3.2.1.A-06-02P**	**Mazzaferro, Pet**	**E Mail (9/12/0**	**Clarification**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.2.1.A**

NRC Issue

On page 3.2-22 of the ALRA, the LRA suggests that this aging mechanism is applicable to the radwaste system but there is no reference to 3.2.1.A-06 in Table 3.3.2-15 (cited) or 3.3.2-14 (NMP1 Radioactive Waste System). Please explain why not.

NMP Response:

NMP recognizes that LRA Table 3.3.2.A-14, NMP1 Radioactive Waste System (RWS), does not reference Table 1 line item 3.2.1.A-06 even though it should. The subject Table 1 line item is for containment isolation valves (CIVs) and associated piping. The RWS system does contain CIVs in the drywell floor and equipment pump discharge lines. As such, the piping and fittings and valves component types in Table 3.3.2.A-14 should have a row referencing Table 1 line item 3.2.1.A-06.

Also, as indicated in the question, the Discussion column for Table 1 line item 3.2.1.A-06 contains a typographical error in that it should reference Table 3.3.2.A-14 vs -15 for the RWS system. This will be corrected.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-023	**3.2.1.A-07-01P**	**Mazzaferro, Pet**	**E Mail (9/12/0**	**Typo/Error**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.2.1.A**

NRC Issue

On page 3.2-22, the ALRA suggests that elastomer degradation may require aging management in the NMP1 Reactor Building HVAC System. However, there is no reference to 3.2.1.A-07 in Table 3.3.2-16. Please explain why not.

NMP Response:

The ALRA contains an oversight in that Table 3.3.2.A-16 (RB HVAC System) should reference Table 1 line item 3.2.1.A-07. Specifically, for the component type of Blowers with material of Polymers in an Air environment, the NUREG-1801 Volume 2 column should be V.B.1-b and the Table 1 Item column should be 3.3.2.A-07.

Additionally, for the remaining component types in Table 3.3.2.A-16, the NUREG-1801 Volume 2 Item, Table 1 Item, and Notes columns will be revised to reference the appropriate standby gas treatment system line items in the NUREG-1801 and ALRA

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm **Closed and Accepted issues**

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-024	**3.2.1.A-09-01P**	**Mazzaferro, Pet**	**E Mail (9/12/0**	**Clarification**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.2.1.A**

NRC Issue

On page 3.2-22, the ALRA suggests that plugging of flow orifice and spray nozzles does not require aging management at NMP1. Please explain why not.

NMP Response:

The subject flow orifice and spray nozzles are associated with the NMP1 Containment Spray System. The spray nozzles are only exposed to an Air environment since they are downstream of the containment isolation valves. As such, piping, fittings and valves from the outboard CIV to the nozzles are not exposed to an environment that could cause corrosion. Also, accumulated corrosion products cannot be transported past the outboard CIV since this valve is closed during system testing and the water remaining in the Containment Spray System after the test is returned to the torus via gravity draining.

For the flow orifices in the primary side of the system, they are exposed to torus water (reactor grade) during quarterly system testing. Accumulation of corrosion products is not expected to occur since the water is gravity drained after the testing. Also, even if some corrosion products were present, the quarterly testing would flush any products past the orifices. To confirm no plugging is occurring, these components are managed by the One-Time Inspection Program.

For the flow orifices in the secondary side of the system, they are exposed to raw water and plugging is of greater concern. As such, these components are managed by the Open Cycle Cooling Water Program.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-025	3.2.1.A-12-01P	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.2.1.A

NRC Issue

On page 3.2-23, the LRA states that "heat exchangers for the NMP1 ESF Systems are not serviced by open cycle cooling system." The GALL Report defines an OCCW system as "a system or systems that transfer heat from safety-related systems, structures, and components (SSCs) to the ultimate heat sink (UHS) such as a lake, ocean, river, spray pond, or cooling tower. Please clarify the basis for stating that the containment spray system not serviced by an OCCW system.

NMP Response:

The quoted statement can be interpreted as being incorrect for the Containment Spray System. The statement was originally made within the context of the Service Water System. Containment Spray has its own OCCW system (not part of the Service Water System) which is managed by the OCCW Program; however, it is not normally wetted. The change to the OCCW Program from the PM Program was made in NMP1L 1985.

The Discussion for Item 3.2.1.A-12 will be changed as follows: "Consistent with NUREG-1801."

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-026	**3.2.1.A-16-01P**	**Poehler/Anders**	**E Mail (9/12/0**	**Ommission**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.2.2.A-3**

NRC Issue

On page 3.2-55 of the ALRA, piping and fittings of the ECS are to be managed using OTI. It is not clear whether these components are also managed with WC and BWR SCC programs, and to which components OTI applies within this component type grouping. (GALL recommends programs consistent with WC and BWR SCC AMPs.) Please clarify.

NMP Response:

The subject line items on page 3.2-55 for piping and fittings in the EC system managed by the One-Time Inspection Program is not included in the BWR SCC Program either because it is small bore piping (<4 inches nominal diameter) or because it is in a low-temperature environment, or is not austenitic stainless steel. For the line item for austenitic stainless steel piping and fittings with environment "Treated Water or Steam, Temperature >212 F but < 482 F" assigned to the One-Time Inspection Program, the BWR SCC Program was not credited because this line item is for small-bore piping. However, the Water Chemistry Program should also have been credited for this line item.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-027	3.2.1.A-16-02P	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	9/21/2005	CLOSED

LRA_Section T 3.2.2.A-3

NRC Issue

On page 3.2-65 of the ALRA, valves of the ECS are to be managed using the ISI & WC Programs. GALL recommends programs consistent with WC and BWR SCC AMPs. The LRA states (PS note 5) that these are small-bore valves that are included in the ISI program. What is the basis of using ISI instead of BWR SCC?

NMP Response:

Per the discussion in GALL Section XI.M7, BWR SCC does not apply to small bore components. See Scope of Program on P. XI M-24 of the GALL.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-028	**3.2.1.B-01-01P**	**Poehler**	**E Mail (9/12/0**	**Typo/Editorial**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.4.2.B-4**

NRC Issue

On page 3.4-67 of the ALRA, flexible hose is evaluated for fatigue damage. This component type does not correspond exactly to V.D2.1-b in the GALL Report. Please confirm that this was the intended component (V.D.2.1-b is not found in the GALL Report) and provide the evaluation for audit.

NMP Response:

The intended component was GALL Item V.D2.1-b. V.D.2.1-b was a typographical error. However, the flexible hoses consist of a flexible metal bellows welded to end fittings of solid pipe. A braided stainless steel sheath protects the outer diameter of the bellows. These hoses are designed to absorb movement and therefore would be unlikely to experience high thermal stresses. Cumulative fatigue damage thus should not apply to these hoses. The row aligning with GALL Item V.D2.1-b should be deleted.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm **Closed and Accepted issues**

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-029	3.2.1.B-06-01P	Petras/Richard	E Mail (9/16/0	Request Informa	9/17/2005	10/26/200	CLOSED

LRA_Section T 3.2.1.B

NRC Issue

On page 3.2-30, the ALRA states that loss of material due to MIC is not applicable for NMP2 ESF systems. Please provide the basis for this assertion.

NMP Response:

The NMP2 ESF systems are as follows:

ADS - no containment isolation valves in this system.
HRC - water is from the CST, reactor grade, therefore, MIC is NA.
LCS - water is from the CST, reactor grade, therefore, MIC is NA.
ICS - water is from the CST, reactor grade, therefore, MIC is NA.
RHS - water is from the suppression pool which is reactor grade, therefore, MIC is NA.
GTS - gaseous system, no water on either side of the containment isolation valves, therefore, no MIC possible.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-030	3.2.1.B-06-02P	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	9/21/2005	CLOSED

LRA_Section T 3.3.2.B-14

NRC Issue

On page 3.3-243 of the ALRA, two different lines for valves in raw water are identical in all respects except the AMP. Do these lines refer to two different components, or are both AMPs used to manage a single set of components?

NMP Response:

Both of these programs apply to these valves. They are subject to App. J tasks and will be inspected under the OTI Program to determine internal valve body condition.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-031	**3.2.1.B-09-01P**	**Petras/Richard**	**E Mail (9/12/0**	**Clarification**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **2.3.2.A.3**

NRC Issue

On page 3.2-31, the ALRA states that plugging of flow orifice and spray nozzles by general corrosion products does not exist for these components in the NMP2 ESF systems. Please explain why not.

NMP Response:

General corrosion products can not block nozzles due to two tests that are run to prevent it.

For the suppression pool nozzles, N2-OP-31 step 4.11 initiates flow thru these nozzles to cool and depressurize the suppression pool when atmospheric conditions warrant it. During this procedure flow is sufficient to remove any accumulated corrosion products (450 gpm per step 4.11.7, in a 4" line is >10 feet per second flow velocity). Step 4.12 verifies suppression pool pressure and therefore flow.

For the containment spray headers, N2-OPS-RHS-@001, the Drywell Spray Nozzles Air Test verifies individually that the nozzles are not clogged (4.1 Test Description.)

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-032	3.2.1.B-16-01P	Poehler	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.2.2.B-4

NRC Issue

On page 3.2-89 of the ALRA, WASS piping and fittings are to be managed using WC and OTI. Please confirm that the subject orifices are not within the scope of ISI (in which case BWR SCC might apply).

NMP Response:

The WASS piping and fittings are small bore (i.e., < 4 inch nominal OD). The piping corresponding to this line item consists of 1 inch diameter or smaller instrumentation piping shown on drawing LR-035-C Rev. 1. The BWR SCC Program is applicable to austenitic stainless steel piping 4 inch nominal diameter and greater.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm **Closed and Accepted issues**

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-033	**3.2.1.B-16-02P**	**Poehler**	**E Mail (9/12/0**	**Clarification**	**9/12/2005**	**9/21/2005**	**CLOSED**

LRA_Section **T 3.2.2.B-4**

NRC Issue

On page 3.2-91 of the ALRA, restriction orifices are to be managed using WC and OTI. Please explain why BWR SCC is not used for managing cracking of the subject components.

NMP Response:

The restriction orifices are not in the BWR SCC program because they are in small bore piping, or have service temperatures less than the threshold that would require them to be included in the BWR SCC Program per Generic Letter 88-01, or both. Printouts from MEL indicate the restriction orifices are associated with the listed lines:

Orifice	Line	Size
2ICS*RO119	2-ICS-001-58-2	1 inch
2ICS*RO123	2-ICS-002-23-2	2 inch
2ICS*RO125	2-ICS-004-6-2	4 inch
2ICS*RO153	2-ICS-750-88-2	¾ inch
2ICS*RO171	2-ICS-750-83-2	¾ inch
2ICS*RO172	2-ICS-750-81-2	¾ inch
2ICS*RO173	2-ICS-750-93-2	¾ inch
2ICS*RO174	2-ICS-750-95-2	¾ inch
2ICS*RO26	2-ICS-750-196-2	¾ inch
2ICS*RO154	2-ICS-750-87-2	¾ inch
2ICS*RO155	2-ICS-001-50-2	1 inch
2ICS*RO163	2-ICS-002-3-2	2 inch
2ICS*RO207	2-ICS-002-31-2	2 inch

All lines were assigned to environment of Treated Water, Temperature < 140°F based on the standby temperature of the line since the RCIC system is in standby the majority of the time.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-034	3.2.1.B-16-03P	Poehler	E Mail (9/12/0	Clarification	9/12/2005	9/21/2005	CLOSED

LRA_Section T 3.2.2.B-4

NRC Issue

On page 3.2-92 of the ALRA, rupture disks are to be managed using WC and OTI. Please explain why BWR SCC is not used for managing cracking of the subject components.

NMP Response:

This line item corresponds to one rupture disc, 2ICS-PSE1. The subject rupture disc does not credit BWR SCC because it is small bore. The MEL shows the associated line is a 1 inch diameter line. The rupture disc is shown on drawing LR-035C Rev. 1.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-163	**4.3**	**Inch, G.**	**Audit (9-22-0**	**Request Informa**	**9/22/2005**	**10/26/200**	**CLOSED**

LRA_Section **4.3**

NRC Issue

Does NUREG CR-6260 cover enough of NMP1 or NMP2 to be relevant for the identification of critical locations and what are the NMP deltas relative to the 6260 locations?

NMP Response:

Yes, the NUREG/CR-6260 locations are relevant for identification of equivalent locations for both NMP units. The locations described in NUREG/CR-6260 for the older vintage BWR are based on a BWR/4 and the newer vintage BWR locations are based on a BWR/6. Therefore, NMP1 (a BWR/2) and NMP2 (a BWR/5) do not possess locations that are exactly identical to those described in NUREG/CR-6260. However, locations were selected for both NMP units that are equivalent to the locations specified in NUREG/CR-6260. These locations were provided to the NRC in the response to RAI 4.3.1-1, contained in letter NMP1L 1891 dated December 6, 2004.

A copy of the RAI 4.3.1-1 response from NMP1L 1958, NER-1S-035, and the BWR discussion in NUREG/CR-6260 were provided to the NRC inspector for review.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-164	4.3-	Inch, G.	Audit (9-22-0	Request Informa	9/22/2005	10/26/200	CLOSED

LRA_Section 4.3

NRC Issue

Please confirm whether NMP is going to use FATIGUEPRO for the evaluation of the environmental assisted fatigue; or, if not, does NMP know what we are to do to evaluate that?

NMP Response:

Environmental fatigue calculations will not be performed using FatiguePro. Fen factors from NUREG/CR-5704 (for stainless steel) and NUREG/CR-5783 (for carbon/low alloy steel) will be calculated and seperately applied to the governing fatigue locations selected for environmental fatigue analysis. The usage factor calculations will be adjusted for applicability to 60 years of plant operation, i.e., the cycle counts will be adjusted to utilize cycle counts projected for 60 years of plant operation for both units. For the NMP1 piping locations that are to be evaluated, ASME Section III-type fatigue calculations will be prepared since the piping design is ANSI B31.1 and fatigue analyses do not currently exist. These fatigue calculations will also be used to support FatiguePro implementation for selected NMP1 piping locations of concern as a part of the Fatigue Monitoring Program.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-126	**A1.1.33**	**Raby, John**	**Audit (9-20-0**	**Clarification**	**9/20/2005**	**9/20/2005**	**CLOSED**

LRA_Section **A1.1.33**

NRC Issue

In Appendix B, Section B2.1.20 of the LRA; the OTI program description states that inspection techniques for the identification of selective leaching "may include a one-time visual inspection and hardness measurement." Need to provide clarification that the appropriate inspection techniques will be used for the identification of selective leaching given the material and environment.

NMP Response:

Based on the commitments made in Appendix A and B for Selective Leaching and One-Time Inspection Programs, it is noted that NMP will implement appropriate inspection techniques taking into account material and environment for the identification of Selective Leaching. Both current and developing industry experience and guidance will be used for determining the appropriate inspection technique, including visual, NDE, and hardness testing

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-171	**B2.1.21**	**Haws, Ken**	**Audit (9-22-0**	**Request Informa**	**9/22/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.21**

NRC Issue

The LRA states that inspection and test techniques prescribed will verify any aging effects. Please delineate, for each aging effect to be managed by the OTI, the specific method(s) to be used. (Summarize to the degree practical, but if different materials are managed differently, list separately.

NMP Response:

There are many variables that will be considered to determine the specific method to be used for detecting the targeted aging effects, as listed in the *One-Time Inspection Program Basis Document* (PBD). *Considerations will include material type, thickness and/or diameter, type of* degradation mechanism, and flaw initiated sight (ID or OD). The following general methods summary is provided:

a) Cracking (metals): NDE techniques such as a Visual and Volumetric or Surface.
b.) Cracking (polymers): Visual methods will be utilized that are consistent with industry methods
c.) Loss of Strength (polymers): Visual methods will be utilized that are consistent with industry methods
d.) Loss of Heat Transfer: Visual and Eddy Current inspections of heat exchanger tubes, while shells will be inspected using Volumetric/Surface and Visual techniques.
e.) Loss of Material: NDE techniques such as a Visual and Volumetric.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-102	B2.1.21-01P	Browne/Haws/	E Mail (9/16/0	Clarification	9/17/2005	9/21/2005	CLOSED

LRA_Section **B2.1.21**

NRC Issue

On page B2-50 of the ALRA, there is a statement that "[i]nspection techniques may include a one-time visual inspection and hardness measurement." This indicates how the OTI can be used to implement the Selective Leaching of Materials Program. On page B2-51, there is a statement that the Selective Leaching of Materials Program...will be consistent with... [GALL AMP] XI.M33, which specifies these two methods. Please confirm that this is intended to be a commitment to visual inspection and hardness measurement in every case where the OTI is used to implement B2.1.21.

NMP Response:

The subject statement is not intended to commit NMPNS to visual inspection and hardness measurement in every case where the OTI is used to implement B2.1.21. Rather, as discussed in XI.M33 in the GALL, Revision 1 (Draft), NMPNS will perform the appropriate inspection based upon the material composition. This means that visual inspection alone will be used in those limited cases where selective leaching is detectable by this method (i.e., certain brasses).

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-137	B2.1.32	Brown, Chris	Audit (9-20-0	Request Informa	9/20/2005	9/21/2005	CLOSED

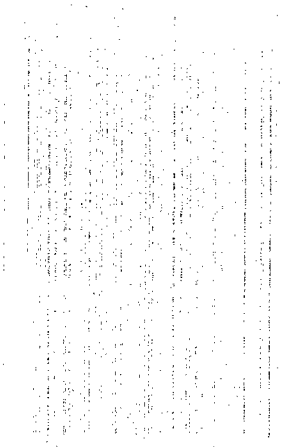
LRA_Section B2.1.32

NRC Issue

Based on a review of the PM Program, procedure N1-NMP-GEN-551 is not identified as requiring an enhancement, However, a review of the procedure does not appear to address any aging effects. Please identify the specific steps that manage aging.

NMP Response:

Closed based on discussion with NRC Auditor, Malcolm Patterson, on 9/21/2005.



NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-146	B2.1.37	Brown, Chris	Audit (9-21-0	Request Docume	9/21/2005	9/21/2005	CLOSED

LRA_Section **B2.1.37**

NRC Issue

Provide a copy of the 2/5/99 SER which addressed the acceptability of NMP's position relative to NUREG-0619.

NMP Response:

Copy provided to auditor by C. Browne 9/21/05.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Patterson, Malcolm — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-071	**3.4.1.A-05-01W**	**Mazzaferro, Pet**	**E Mail (9/12/0**	**Clarification**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.1.2.B-3**

NRC Issue

In several places associate with item 3.4.1.A-05, the NMP ALRA states that loss of material from external surfaces of CS or LAS subject to air environment is to be managed using the Systems Walkdown Program, a plant-specific program. Consistency Note "A" is used when a component is consistent with the GALL Report both for AEMP and AMP. However, for these items, the GALL Report did not specify "Systems Walkdown Program," which is not, in any case, described in the GALL Report. Should the consistency note be changed?

NMP Response:

GALL Report, Volume 1, from which line 3.4.1.A-05 is taken, specifies that a Plant Specific Program be utilized for aging management of CS external surfaces. When the component, material, environment, and aging effect are consistent with a GALL Item, NMP's interpretation of the utilization of a Plant Specific Program, when it is called out in that GALL Item, to be consistent with the definition of Note A – "Consistent with NUREG-1801 for component, material, environment, and aging effect. AMP is consistent with NUREG-1801 AMP." A review of Rev. 1 of the GALL determined that it specifies the new "External Surfaces Monitoring Program" which is similar to the NMP Systems Walkdown Program. Therefore, Note A remains as the appropriate Note.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-072	**3.4.1.A-06-01W**	**Fallin, Mike**	**E Mail (9/12/0**	**Clarification**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.4.2.A-5**

NRC Issue

On page 3.4-50, the ALRA specifies "FAC Program" to manage air ejectors in NMP1 condensate air removal and off-gas system for the aging effect of loss of material. Please confirm that air ejectors are included in the NMP FAC program. Have they ever been selected as a susceptible line (based on a predictive plant model, such as CHECWORKS)? Regarding wall thinning due to FAC, has any inspection ever been performed on the air ejectors at NMP1?

NMP Response:

This applies to the steam supply lines to the Steam Jet Air Ejectors (SJAE). The FAC Program System Susceptibility Review includes the steam supply piping in scope potentially susceptible to FAC. These lines are small bore piping (1-½") with socket welded fittings and, therefore, not modeled in CHECWORKS per the recommendation for small bore piping in NSAC 202L R2, Appendix A. The FAC Program monitors a selected sample of piping components from these lines for FAC inspections.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-073	3.4.1.A-07-01W	Mazzaferro, Pet	E Mail (9/12/0	Typo/Editorial	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.4.2.A-4

NRC Issue

On pages 3.4-46 and -48 of the ALRA, loss of material from WASS and CS piping and fittings as well as CS valves is managed using only the WC program. The discussion in Table 1 indicates that OTI may be applied in this environment for small-bore components. Please confirm that these are not SB, and identify where all SB components of these types in the MS system are addressed.

NMP Response:

In LRA Table 3.4.2.A-4 for the NMP1 Main Steam System, the carbon steel piping and fittings and valves that reference Table 1 Item 3.4.1.A-07 are the large bore main steam lines and valves. For these components, the loss on material aging effect is managed by the Water Chemistry Control Program consistent with NUREG-1801.

However, the Main Steam System also has small bore carbon steel drain line piping, fittings and valves that are not accurately reflected in Table 3.4.2.A-4. As such, the table will be revised to correct this deficiency.

This issue applies to NMP2 and Table 3.4.2.B-4 as well.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-074	**3.4.1.B-05-01W**	**Mazzaferro, Pet**	**E Mail (9/12/0**	**Clarification**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **General**

NRC Issue

In several places associate with this item (3.4.1.B-05), the NMP ALRA states that loss of material from external surfaces of CS or LAS subject to air environment is to be managed using the Systems Walkdown Program, a plant-specific program. Consistency Note "A" is used when a component is consistent with the GALL Report both for AEMP and AMP. However, for these items, the GALL Report did not specify "Systems Walkdown Program," which is not, in any case, described in the GALL Report. Should the consistency note be changed?

NMP Response:

GALL Report, Volume 1, from which line 3.4.1.B-05 is taken, specifies that a Plant Specific Program be utilized for aging management of CS external surfaces. When the component, material, environment, and aging effect are consistent with a GALL Item, NMP's interpretation of the utilization of a Plant Specific Program, when it is called out in that GALL Item, to be consistent with the definition of Note A – "Consistent with NUREG-1801 for component, material, environment, and aging effect. AMP is consistent with NUREG-1801 AMP." A review of Rev. 1 of the GALL determined that it specifies the new "External Surfaces Monitoring Program" which is similar to the NMP Systems Walkdown Program. Therefore, Note A remains as the appropriate Note.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-077	3.4.A-01W	Mazzaferro, Pet	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section General

NRC Issue

In NUREG-1801, Vol. 2, Chapter VIII, Tables C1, C2 and C3 list an environment of steam with aging effects/mechanisms of wall thinning due to FAC as well as LOM due to general, pitting and crevice corrosion. For this component, material, environment and aging effect combination, the AMPs listed in NUREG-1801 are "FAC" and "Water Chemistry," (augmented by "One-Time Inspection" in some cases). NMP ALRA Tables 3.4.2.A-1 thru 3.4.2.A-7 do not appear to list these component types (piping, fittings, and valves) in the extraction steam system for the aging effect of wall thinning (due to FAC) and LOM (due to general, pitting and crevice corrosion). Please explain why the aging effect of wall thinning (due to FAC) and LOM (due to general, pitting and crevice corrosion) for the NMP Unit 1 extraction steam system is not considered.

NMP Response:

The NMP1 Extraction Steam System is included as part of the NMP1 Feedwater System (see ALRA page 2.3-199). However, in Table 3.4.2.A-2 for the Feedwater System, NMP did not specifically identify which piping, fittings and valves were applicable to the Extraction Steam System by denoting those line items with reference to GALL items in Chapter VIII, Table C. The ALRA requires an update to specifically identify the components for the Extraction Steam System.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-131	**B2.1.12**	**Carter, Bill**	**Audit (9-20-0**	**Request Informa**	**9/20/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.12**

NRC Issue

Please provide a summary of industry and NMP experience relative to the use of Boral for reactivity control in the NMP spent fuel pools.

NMP Response:

Nine Mile Point Units 1 and 2 comply with regulatory requirements with respect to coupon surveillance testing in the Spent Fuel Pool storage racks. NMP1 has completed Boral coupon surveillances prior to RFO17 (2003) and RFO18 (2005). Test reports for these surveillances have concluded that the coupons were in good overall condition with no significant deterioration or degradation evident. No blistering was present and corrosion was limited to a uniform oxide film on all coupon surfaces. Boron areal density testing revealed no loss of boron carbide.

Industry experience has shown that dry cask and wet storage applications of Boral have resulted in formation of blisters. In addition, Pressurized Water Reactor utilities have seen pitting corrosion in their wet storage systems due to the corrosive environment resulting from boric acid in the Spent Fuel Pool. Industry experience to date has shown that no boron carbide loss has occurred.

Boiling Water Reactors, such as Nine Mile Point use demineralized water in the Spent Fuel Pool, which results in non electrolytic medium making corrosion much less likely. No significant degradation has been observed in Boral in a BWR Spent Fuel Pool environment.

Nine Mile Point coupon monitoring results to date and current applicable industry experience indicate that there are no significant performance issues associated with Boral in the NMP Spent Fuel Pools that could lead to a reduction of neutron-absorbing capacity.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-094	**B2.1.12-01W**	**Browne/Haws/**	**E Mail (9/12/0**	**Request Informa**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.12**

NRC Issue

What is the status of NMP-1 Boraflex replacement program? Did NMP perform any examination on the replaced Boraflex racks?

NMP Response:

Two Boraflex racks remain in the SFP, and they are not currently scheduled for removal. No physical inspections of any kind were performed in the racks that were removed, but the BMP for Unit 1 will be enhanced to include performance of periodic neutron attenuation testing and measurement of boro areal density to confirm the correlation of the conditions of the test coupons to the conditions of the Boraflex racks that remain in use during the period of extended operfation (as stated in the ALRA).

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-095	**B2.1.12-02W**	**Browne/Haws/**	**E Mail (9/12/0**	**Clarification**	**9/12/2005**	**9/22/2005**	**CLOSED**

LRA_Section **B2.1.12**

NRC Issue

For Boraflex Monitoring Program, the GALL Report identifies parameters to be monitored including: physical conditions of the Boraflex panels, such as gap formation and decreased boron areal density, and the concentration of the silica in the spent fuel pool. Does the NMP Boraflex Monitoring Program monitor all of these parameters?

NMP Response:

Not all of the parameters specified in the GALL are currently monitored. The Unit 1 BMP does not include the testing which would monitor gap formation and decreased boron areal density. Consistent with the NMP CLB, however, silica levels are measured monthly and used to update the RACKLIFE computer model. As stated in the LRA, NMP1 will enhance the BMP to include the in-situ testing required to monitor the physical condition of the panels, and thereby bring the program in alignment with the GALL, without exceptions.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-096	B2.1.12-03W	Browne/Haws/	E Mail (9/12/0	Request Informa	9/12/2005	9/22/2005	CLOSED

LRA_Section B2.1.12

NRC Issue

Which current operating procedures will be impacted by the proposed enhancement?

NMP Response:

NMP1 will continue to use existing procedures regarding the placement and movement of fuel in the SFP since the RACKLIFE predictions, coupon results, and silica levels show that Boraflex panels are stable. The condition of the Boraflex will continue to be monitored under the Program as required under the current licensing basis, but prior to the period of extended operation, the physical condition of the panels will be assessed by using in-situ testing methods to measure areal density and determine the extent and condition of panel gaps, if any. At that time, the RACKLIFE model and assumptions in the criticality analyses will be validated with the test results. Should the results of this evaluation show that the present or projected condition of the panels dictates that operation restrictions be placed on the placement or movement of fuel, they will be procedurally implemented at that time.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-097	B2.1.12-04W	Browne/Haws/	E Mail (9/12/0	Request Informa	9/12/2005	10/26/200	CLOSED

LRA_Section **B2.1.12**

NRC Issue

In the amended NMP ALRA, the applicant states that the Boraflex Monitoring Program is applied to NMP1 only. For NMP2, what aging management program will be used to manage the aging effect of reduction of neutron-absorbing capacity for spent fuel storage racks?

NMP Response:

Prior the period of extended operation, the Boraflex in the Unit 2 SFP will be replaced with Boral. As long as any Boraflex remains, the BMP will be maintained under the requirements of the CLB. Per GALL Revision 1 (September 2005), Item VII.A2.1-b, Boral in treated water shall be evaluated for a reduction of neutron-absorbing capacity and loss of material due to general corrosion.

The Water Chemistry Control Program will be used to manage the aging effects of general corrosion by ensuring that corrosive ion concentrations do not exceed acceptable limits and by limiting the amount of impurities in the water. Notably, Boral is constructed using Alloy 1100 aluminum, which is highly resistance to corrosion since it develops a strongly bonded oxide film with excellent corrosion resistance.

Though this aging mechanism is not expected to occur in a treated water environment, the One-Time Inspection Program will verify the effectiveness of the Water Chemistry Control Program by confirming the absence of aging effects on Boral coupon samples stored in the spent fuel pool. Aging effects that could affect rack integrity or neutron attenuation characteristics are not expected since significant aging has not been observed during coupon sample evaluations conducted in the industry over many years.

The identification of the Water Chemistry Control and One-Time Inspection Programs for managing the aging effects of Boral racks was included in NMP's 9/15 letter (NMP1l 1985 and will be included in the letter that is going to supersede that letter.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-130	B2.1.14	Green, R.	Audit (9-20-0	Request Docume	9/20/2005	9/20/2005	CLOSED

LRA_Section B2.1.14

NRC Issue

Auditor requested a copy of CR-NM-2000-3810.

NMP Response:

CR-NM-2000-3810 provided to NRC by Dick Green.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-098	**B2.1.14-01W**	**Browne/Haws/**	**E Mail (9/12/0**	**Request Informa**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.12**

NRC Issue

In the discussion section of "Exceptions to NUREG-1801", the applicant quoted the reference of EPRI TR-108147, EPRI NP-7079, and ASME OM-S/G-1998, Part 17. However, in addition to the above mentioned references, GALL Report program element# 2 (preventive actions) also references ANSI/ISA-S7.0.01-1996. Please explain why ANSI/ISA-S7.0.01-1996 was not mentioned in the NMP program?

NMP Response:

EPRI TR-108147, EPRI NP-7079, and ASME OM-S/G-1998, Part 17 where mentioned in the ALRA since they, in part, constitute exceptions to the GALL. NMP1 uses standards that meet those listed in ANSI/ISA-S7.0.01-1996, in that the system air quality is monitored and maintained in compliance with the requirements of ANSI/ISA-S7.3-1975. Nine Mile Point agrees that this is an exception to the GALL, and will amend the Amended LRA section A1.1.14 and B 2.1.14 as required.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-099	**B2.1.14-02W**	**Browne/Haws/**	**E Mail (9/12/0**	**Request Informa**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.14**

NRC Issue

The applicant states in its ALRA that since its inception in 1992, the Compressed Air Monitoring Program at NMPNS has effectively detected the buildup of corrosion products and prevented component failure. Please give examples of plant-specific operating experience for the above statement.

How has the operating experience been captured by NMP?

NMP Response:

Based on a review of the plant-specific operating experience, NMP1 has not experienced a failure of a pneumatic component within the scope of license renewal due to corrosion, corrosion product buildup, or dirt buildup. However, an example of an instance where aging was detected *before there was a loss of intended function is given, as follows:*
While performing maintenance to WO 00-10631-00 which was investigating a potential tube leak on the aftercooler of an air compressor, maintenance found crud on the air side of the aftercooler and the aftercooler's associated drain line. This provides an example of maintenance performing work and examining components in their entirety. By doing so maintenance was able to identify corrosion products and take corrective measures prior to a component failure. This has been documented via the corrective action program by CR-NM-2000-3810.

During performance of field work information is placed into the work orders via note to capture operating experience. When preparing future work orders, the notes are reviewed and necessary information is placed in the new work orders.

In preparing the Aging Management Programs, NMP recognized that this information needs to be incorporated into procedures. This has been *documented as an enhancement in amended LRA Section B2.1.14. The enhancement reads " Expand the scope, periodicity, and inspection* techniques to ensure that the aging of certain sub-components of the dryers and compressors (e.g., valves, heat exchangers) are managed".

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-100	**B2.1.14-03W**	**Browne/Haws/**	**E Mail (9/16/0**	**Error**	**9/17/2005**	**9/22/2005**	**CLOSED**

LRA_Section **B2.1.14**

NRC Issue

In the section of "Exceptions to NUREG-1801" of the amended NMP LRA B2.1.14, the applicant states, that "specific exception is taken to any maintenance recommended in EPRI TR-108147 that is not also endorsed by the equipment manufacturers, and to the pre-service and in-service testing guidelines of ASME OM-S/G-1998, Part 17." However, the applicant did not mention that the above exceptions have been taken in the section of "NUREG-1801 Consistency". Please clarify the discrepancy and describe how these exceptions affect specific program elements.

NMP Response:

The LRA will be revised, appropriately.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-101	B2.1.14-04W	Browne/Haws/	E Mail (9/16/0	Clarification	9/17/2005	9/22/2005	CLOSED

LRA_Section None

NRC Issue

In the Program Element #3, "Parameter Monitored/Inspected," the GALL Report recommends that ISI and IST are performed to verify proper air quality and confirm that maintenance practices, emergency procedures, and training are adequate to ensure that the intended function of the air system is maintained. Does NMP use ISI and/or IST to do these activities or use other programs to accomplish them? Please describe NMP's program that verifies the air quality and confirms that maintenance practices, emergency procedures, and training are adequate.

NMP Response:

IST activities are performed on required air operated components served by the compressed air system to verify the adequacy of both maintenance activities and air purity standards. Functional tests objectively demonstrate that contaminants are not affecting the intended function of safety related loads.
Air quality is further assured by regular air sampling under N1-CTP-Q921, "Instrument Air Sampling and Analysis" which is part of the Compressed Air Monitoring Program consistent with NMPNS's commitment to GL 88-14. The results of these tests further confirm that the equipment is adequately maintained.

Emergency procedures at NMP include specific steps for assuring that operators are able to safely shutdown the plant in the event of a loss of instrument air. The relevant procedure is N1-SOP-20.1, "Instrument Air Failure".

Operator preparedness for a loss of instrument air is addressed through initial and recurrent training under the NMP Training Program and maintained by the Training Department.

Operator Training, normal and emergency procedures, maintenance practices, and air quality testing methods and standards were evaluated and determined to be adequate as part of the NMP1 response to GL 88-14.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-119	B2.1.26	Raby, John	Audit (9-19-0	Typo/Error	9/19/2005	9/20/2005	CLOSED

LRA_Section B2.1.26

NRC Issue

In several places in the amended LRA tables, Appendix J program alone is listed to manage aging effect. In light of the long duration between the Appendix J tests, please provide justification as why Appendix J program alone is sufficient to mange the aging effects.

NMP Response:

This is a duplicate of NMP-AI-104 (B2.1.26-01W).

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-104	**B2.1.26-01W**	**Browne/Haws/**	**E Mail (9/12/0**	**Request Informa**	**9/12/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.26**

NRC Issue

From the NMP response to the previous Audit Questions# 69 and 70: under Option B, the current maximum test intervals at NMP are: 10 years for the Type A test; 10 years for most Type B tests; and 5 years for most Type C tests. In addition to the required visual examination of accessible interior and exterior surface of the containment for evidence of structural degradation, the Appendix J Option B also requires performing 3 visual examinations in each 10-year period.

Many line items of auxiliary system (System 3.3) and structure and component support (System 3.5) use the Appendix J program alone to manage the aging effect. In light of long interval between the Appendix J tests, please provide justification as why using Appendix J Program *alone is sufficient to manage the aging effects.*

NMP Response:

The question infers that since under the Appendix J Program, components are tested once in 10 years, the Appendix J Program alone cannot be justified as a stand alone aging management program.

The data provided in applicable sections of the "Summary of Aging Management Evaluation" table within the NMP Amended LRA, indicates that in most cases the Appendix J Program is not the only program credited for managing aging effects. Other programs such as the Preventive Maintenance Program, One Time Inspection Program and ASME Section XI Inservice Inspection (Subsection IWE) Program are also credited for managing aging. The following explanation is provided for each of the tables where Appendix J is listed as an aging management program:

Table 3.3.2.A-4 lists the Appendix J Program twice, once with the Preventive Maintenance Program and another time with the One Time Inspection Program (pages 3.3-125 and 126).

Table 3.3.2.B-14 lists the Appendix J Program four times, either with the Preventive Maintenance Program or with the One Time Inspection (pages 3.3-240 and 243). This table also has two entries that credit the Appendix J Program alone. These will be revised to also credit the One-ime Inspection Program.

Table 3.3.2.B-5 lists the Appendix J Program four times, each with the One Time Inspection Program (pages 3.3-214, 215, and 216).

Table 3.5.2.A-1 lists the Appendix J Program nine times, each with ASME Section XI Inservice Inspection (Subsection IWE) Program. In addition, two of those list the One Time Inspection Program as well (pages 3.5-63, 64, 65, 66, 67 and 68).

Table 3.5.2.A-1 and Table 3.5.2.B-1 list the Appendix J Program alone, twice in each table, where the components are Airlocks or Equipment Hatches with an environment of "Air, relative motion between components" and the aging effect of "Loss of Leak Tightness". Although these are Type B tests, eligible for extended frequency, the air locks and hatches are tested during each refueling outage and not on an extended frequency (pages 3.5-63, 64, 87 and 89).

Table 3.5.2.A-1 and Table 3.5.2.B-1 list the Appendix J Program alone, once in each table, where the component is Seals and Gaskets (pages 3.5-66 and 90). The Seals and Gaskets are captured in Type B penetration testing under the Appendix J Program. Even though the frequency of testing is 10 years, a sample of containment penetration population is tested each refueling outage. If there is a failure, the failed component will be returned to a more frequent testing schedule, until acceptable performance is established for extended frequency.

See also Issue NMP-AI-119 (B2.1.26-1).

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter **Closed and Accepted issues**

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-105	**B2.1.26-02W**	**Browne/Haws/**	**E Mail (9/12/0**	**Request Informa**	**9/12/2005**	**9/22/2005**	**CLOSED**

LRA_Section **B2.1.26**

NRC Issue

In the past two refueling outages, had NMP's Corrective Action Program identified problems associated with the Appendix J Program?

NMP Response:

No problems have been identified through the CAP during the past two RFOs that affect the Appendix J Program.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-109	**B2.1.9-01W**	**Wadsworth, J.**	**E Mail (9/12/0**	**Request Informa**	**9/12/2005**	**9/21/2005**	**CLOSED**

LRA_Section **B2.1.9**

NRC Issue

How is the minimum allowable wall thickness defined in NMP FAC program?

NMP Response:

The minimum acceptable wall thickness is the thickness required by the design Code to withstand the design loads. The NMPNS FAC Program uses 87.5% of the nominal wall thickness as the first threshold for minimum wall thickness because newly purchased pipe (to a nominal design specification) could have actual wall thickness as low as 87.5% of the nominal wall thickness.

Wen, Peter — **Closed and Accepted issues**

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-110	**B2.1.9-02W**	**Wadsworth, J.**	**E Mail (9/12/0**	**Request Informa**	**9/12/2005**	**9/21/2005**	**CLOSED**

LRA_Section **B2.1.9**

NRC Issue

If degradation is detected such that the measured wall thickness is less than the minimum predicted thickness, explain how the sample size is increased to bound the thinning for the same inspection period. Does NMP's FAC program follow the recommendations provided in EPRI NSAC-202L-R2?

NMP Response:

NMPNS FAC Programs follow the recommendations in EPRI NSAC 202L. Along with the CHECWORKS computer program, in depth engineering review and evaluation of wall thickness data for the inspected components is conducted. The FAC program manager expands the inspection sample with selection of adjacent components within the line to bound the reductions found in the degraded component and at similar locations in sister trains /parallel lines. NSAC 202L recommendations are followed with consideration of the remaining life and structural margin of the degraded component. The extent of the sample expansion is based on the severity of thinning and the results of initial sample expansion.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-111	B2.1.9-03W	Wadsworth, J.	E Mail (9/12/0	Request Informa	9/12/2005	10/26/200	CLOSED

LRA_Section B2.1.9

NRC Issue

Describe the experience of FAC program at NMP, specifically, the ability of the inspection programs to detect wall thinning in a timely manner before the intended function of piping components has been lost:

- Have components been identified that did not meet the minimum allowable wall thickness prior to replacement or loss of pressure retaining capacity?

- What corrective actions have been taken, and to what extent have these measures been effective in eliminating or reducing the wall thinning?

- What changes to the program have occurred to ensure that aging effects due to FAC have been successfully managed?

- Please provide two examples to demonstrate that the current aging management program has been effective to successfully detect and mitigate wall thinning.

NMP Response:

Overall the NMPNS FAC Program has been effective in managing wall thinning prior to loss of intended function. Consistent with the industry, NMPNS has experienced a small number of pressure boundary failures in FAC susceptible piping, primarily in small bore piping (2" NPS and less). In these instances the sample size was expanded as required by the FAC Program, recommendations of NSAC 202L, and addressed under the Corrective Action Program. The piping components were replaced with upgraded FAC resistance chrome-moly materials, or repaired or replaced in kind and others are planned for future replacement with resistant materials. Continued monitoring results indicate that the material change was effective in mitigating FAC. The resulting refinements have lead to both earlier detection of wall thinning and a reduction in the number and frequency of leaks. For example, the following operating experiences of significant pipe wall thinning occurred and are addressed in Deviation /Event Reports (DER) under the Corrective Action Program.
NMP1 – DER - NM-1997-0863 /1067, Reheater Drain Line Inlet Nozzles, 5th Point Feedwater Heat Exchangers.
FAC Inspections revealed significant pipe wall thinning in the NMP1 Reheater Drain Line Inlet Nozzles to the 5th Point Feedwater Heat Exchangers which precluded through wall leakage. FAC resistance materials were used to replace these piping components.

NMP2 – DER - NM-2000-0928 /0993 /0994, Extraction Steam Inlet Nozzles, 5th Point Feedwater Heat Exchangers.
FAC Inspections revealed significant pipe wall thinning in the NMP2 Extraction Steam Inlet Nozzles to the 5th Point Feedwater Heat Exchangers which precluded through wall leakage. Interim repairs were completed and FAC resistance materials were used to replace a portion of these components and the same is planned for the remaining components.
NMP2 – DER - NM-2002-3213, Low Pressure Heater Drain Lines, 2nd Point Feedwater Heat Exchangers.
At NMP2 a 2nd Point Feedwater Heat Exchanger Low Pressure Drain Line leaked before its scheduled FAC inspection was performed. An interim repair was completed and the low pressure heater drain lines were replaced with a FAC resistance piping material (chrome-moly).

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Wen, Peter

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-173		**Haws, Ken**	**Audit (9-22-0**	**Clarification**	**9/21/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.22**

NRC Issue

Various editorial errors or the need for clarifications were identified in the Buried Piping and Tanks Inspection Program Basis Document (PBD)
•□Page 5 of 15/Table 5.0-1 – Subattribute 0.4 - Needs clarification to include focused inspections prior to the periods of extended operation.
•□Page 7-15/Table 5.1-01 – Subattribute 3.2 - Clarify the statement referring to: "When damage is found".
•□Page 8 of 15 Table 5.1-01 - Subattribute 4.3 - Subattribute 4.3 (Detection of Aging Effects) of Table 5.0-1 in the PBD includes a reference that points back to information in Subattribute 4.2, however Subattribute 4.2 does not have the information that is referenced in Subattribute 4.3
•□Page 10 of 15 Table 5.1-01 - Subattribute 8.1 – remove reference to one time inspection program and replace with the buried piping and tanks program.
•□Page 13 of 15/Attachment 2 – need to correct three typographical errors.

NMP Response:

The various editorial errors and enhancement required in the PBD, identified by the NRC inspector, will be corrected.

REQURIED ACTION
Revise the Buried Piping and Tanks Inspection Program Basis Document (PBD) to correct the editorial errors identified by the NRC Staff, as listed above.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-172		**Kehoe**	**Audit (9-22-0**		**9/23/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.22**

NRC Issue

Provide details regarding the programs implementation activities (i.e. – procedure development, training, etc.) and associated dates.

NMP Response:

A draft Implementation Plan and an Impact Assessment have been prepared that describes specific actions, person-hour estimates and time frame for completing enhancements that are provided in the Buried Piping and Tanks PBD. Scheduling tools and resource allocation will be provided to ensure that the actions are completed within 24 months prior to the period of extended operation. The following actions represent significant milestones

1)□Implement the new Buried Piping and Tanks Inspection Program procedure (NEP-BPTINSP-01).
2)□*Initiate an Engineering Calculation (Nuclear Engineering Report (NER)), as necessary, to document and track excavation information from* opportunistic excavations and to document considerations in any focus driven excavation.
3)□Revise work control procedures/Instruction, (GAP-PSH-01 and NAI-PSH-06), to detail the notification of the Engineering Programs Group prior to any excavation.
4)□Revise Chapter 21 of the Site Safety Manual, (Excavation, Trenching and Shoring Safe Work Practices), to require notification of the Engineering Programs Group prior to any excavation.
5)□Train and qualify inspectors to perform inspections for the buried piping and tanks program. Initiate a training review request (TRR) per NIP-TQS-02, requesting development of specific training to qualify inspectors of buried pipe and tanks in accordance with new engineering programs procedure NEP-BPTINSP-01).

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-043	**3.3.1.A-16-01J**	**Fallin, Mike**	**E Mail (9/16/0**	**Typo/Editorial**	**9/17/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.5.2.A-4**

NRC Issue

In LRA table 3.5.2.A-4 (table 2) on page 3.5-74 for component type refueling platform and aging effect loss of material, the table 1 line item shown is 3.3.1.B-16. Please confirm that a Unit 2 table 1 line item is intended for a Unit 1 component type.

NMP Response:

This is a typo – the correct Table 1 Item is 3.3.1.A-16.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-078	3.5.1.A-05-01J	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	9/20/2005	CLOSED

LRA_Section T 3.5.2.A-1

NRC Issue

In LRA table 3.5.2.A-1 (table 2) page 3.5-64 of the ALRA, for component type equipment hatches (including stabilizers) and aging effect loss of leak tightness, the table 1 line item shown is 3.5.1.B-05. Explain why a unit 2 table 1 line item is shown with a unit 1 component type.

NMP Response:

This occurrence is a typo. The entry should be 3.5.1.A-05.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-079	3.5.1.A-23-01J	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.5.2.A-2

NRC Issue

In ALRA table 3.5.2.A-2 (table 2) page 3.5-71 for component type liners and aging effect cracking, the GALL volume 2 line item shown is III.A5.2-b with the table 1 line item 3.5.1.A-23. The note D states that the component is different from GALL. Explain how this AMR line item component is different from GALL when GALL line item III.A5.2-b is also for the component liners.

NMP Response:

The Notes entry should be Note B since the WCC Program takes exceptions to the GALL.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-080	3.5.1.A-29-01J	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section **T 3.5.2.A-1**

NRC Issue

In ALRA table 3.5.2.A-1 (table 2) page 3.5-64 for component type expansion/grouted anchors and aging effect loss of anchor capacity, the GALL volume 2 line items shown are III.B1.1.4-a and III.B1.2.3-a with the table 1 line item 3.5.1.A-29. The environment is shown as concrete and the note states that it is consistent with GALL. Explain how this AMR line item is consistent with GALL when the two GALL line items have a component type of concrete surrounding anchor bolts, a material of concrete, an environment of inside containment and an aging effect of reduction in anchor capacity. The logic of this NMP AMR line item is not consistent with GALL. Also applies to LRA table 3.5.2.A-2 (table 2) page 3.5-70 for component type expansion/grouted anchors. Also applies to ALRA table 3.5.2.A-6 (table 2) page 3.5-76 for component type expansion/grouted anchors. Also applies to ALRA table 3.5.2.A-8 (table 2) page 3.5-80 for component type expansion/grouted anchors. Also applies to ALRA table 3.5.2.A-9 (table 2) page 3.5-83 for component type expansion/grouted anchors.

NMP Response:

NMP will make its ALRA consistent with the GALL for all of its expansion/grouted anchors. The current entries for the Loss Of Material for the anchor itself will remain as is.

The current line for CS anchor in concrete will be revised. In its place, the Component Type will be changed to Concrete Surrounding Anchor Bolts, the Material will be Concrete, the Environment will Air and the rest of the line will remain as it is currently displayed.

NMP used the AERM of Loss of Anchor Capacity instead of Reduction in Anchor Capacity and it is intended that these terms have exactly the same meaning.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-081	3.5.1.A-29-02J	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.5.2.A-11

NRC Issue

In ALRA table 3.5.2.A-11 (table 2) page 3.5-85 for component type expansion/grouted anchors and aging effect loss of anchor capacity, the GALL volume 2 line item shown is III.B1.2.3-a with the table 1 line item 3.5.1.A-19. The environment is shown as concrete and the note states that it is consistent with GALL. Please explain how this AMR line item is consistent with GALL when the GALL line items have a component type of concrete surrounding anchor bolts, a material of concrete, an environment of inside containment and an aging effect of reduction in anchor capacity. The logic of this NMP AMR line item is not consistent with GALL. Also explain why the table 1 line item shown is 3.5.1.A-19 instead of 3.5.1.A-29.

NMP Response:

The Table 1 entry of 3.5.1.A-19 is a typo and should be 3.5.1.A-29.

NMP will make its ALRA consistent with the GALL for all of its expansion/grouted anchors. The current entries for the Loss Of Material for the anchor itself will remain as is. The current line for CS anchor in concrete will be revised. In its place, the Material of CS will be replaced with Concrete (new line with the current line that starts with Concrete), the Environment of Concrete will be replaced with Air and the rest of the line will remain as it is currently displayed.

NMP used the AERM of Loss of Anchor Capacity instead of Reduction in Anchor Capacity and it is intended that these terms have exactly the same meaning.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-082	3.5.1.B-05-01J	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.5.2.B-1

NRC Issue

In LRA table 3.5.2.B-1 (table 2) page 3.5-87 of the ALRA, for component type Air Locks and aging effect loss of leak tightness, the table 1 line item shown is 3.5.1.B-05 and the GALL volume 2 line item II.B4.2-b. Explain how the AMR line item is consistent with GALL when the AMP listed does not include Plant Technical Specifications as shown in table 1 and the GALL line item. Also applies to LRA table 3.5.2.B-1 (table 2) page 3.5-89 for component type Hatches and aging effect loss of leak tightness.

NMP Response:

The Discussion column for Table 1 Item 3.5.1.B-05 states that NMP2 is consistent with the GALL. It is meant by this statement that the relevant Plant Technical Specifications information is considered to be part of the aging management of the air locks as applicable. Consistent with applications from other plants, the NMP2 Plant Technical Specifications are not credited as an AMP in the Type 2 Tables since they are not credited as an AMP in the ALRA. Another similar example of the creditation of a non-program activity for aging management is Table 1 Item 3.5.1.A/B-23 which credits the monitoring of the spent fuel pool water level – an Operations activity as opposed to being an AMP.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-083	3.5.1.B-23-01J	Fallin, Mike	E Mail (9/12/0	Typo/Editorial	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.5.2.B-2

NRC Issue

In ALRA table 3.5.2.B-2 (table 2) page 3.5-96, for component type liners and aging effect cracking, the GALL volume 2 line item shown is III.A5.2-b with the table 1 line item 3.5.1.B-23. The note D states that the component is different from GALL. Explain how this AMR line item component is different from GALL when GALL line item III.A5.2-b is also for the component liners.

NMP Response:

The Notes entry should be Note B.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-084	3.5.1.B-29-01J	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.5.2.B-2

NRC Issue

In ALRA table 3.5.2.B-2 (table 2) page 3.5-94, for component type expansion/grouted anchors and aging effect loss of anchor capacity, the GALL volume 2 line item shown is III.B1.2.3-a with the table 1 line item 3.5.1.B-29. The environment is shown as concrete and the note states that it is consistent with GALL. Please explain how this AMR line item is consistent with GALL when the GALL line item has a component type of concrete surrounding anchor bolts, a material of concrete, an environment of inside or outside containment and an aging effect of reduction in anchor capacity. The logic of this NMP AMR line item is not consistent with GALL.

Also applies to ALRA table 3.5.2.B-4 (table 2) page 3.5-101 for component type expansion/grouted anchors and aging effect loss of anchor capacity. Also applies to ALRA table 3.5.2.B-5 (table 2) page 3.5-103 for component type expansion/grouted anchors and aging effect loss of anchor capacity.

Also applies to ALRA table 3.5.2.B-6 (table 2) page 3.5-106 for component type expansion/grouted anchors and aging effect loss of anchor capacity. Also applies to ALRA table 3.5.2.B-8 (table 2) page 3.5-111 for component type expansion/grouted anchors and aging effect loss of anchor capacity.

Also applies to ALRA table 3.5.2.B-10 (table 2) page 3.5-114 for component type expansion/grouted anchors and aging effect loss of anchor capacity.

Also applies to ALRA table 3.5.2.B-11 (table 2) page 3.5-117 for component type expansion/grouted anchors and aging effect loss of anchor capacity. Also explain why a Unit-1 table 1 line item is shown with a Unit-2 component.

Also applies to ALRA table 3.5.2.B-13 (table 2) page 3.5-124 for component type expansion/grouted anchors and aging effect loss of anchor capacity.

NMP Response:

NMP will make its ALRA consistent with the GALL for all of its expansion/grouted anchors. The current entries for the Loss Of Material for the anchor itself will remain as is.
The current line for CS anchor in concrete will be revised. In its place, the Component Type will be changed to Concrete Surrounding Anchor Bolts, the Material will be Concrete, the Environment will be Air and the rest of the line will remain as it is currently displayed.

NMP used the AERM of Loss of Anchor Capacity instead of Reduction in Anchor Capacity and it is intended that these terms have exactly the same meaning.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-085	3.5.1.B-29-02J	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section **T 3.5.2.B-11**

NRC Issue

In ALRA table 3.5.2.B-11 (table 2) page 3.5-117 for component type expansion/grouted anchors and aging effect loss of anchor capacity, the GALL volume 2 line item shown is III.B1.2.3-a with the table 1 line item 3.5.1.A-29. However, no environment is shown and the note states that it is consistent with GALL. Explain how this AMR line item is consistent with GALL when the GALL line items have a component type of concrete surrounding anchor bolts, a material of concrete, an environment of inside containment and an aging effect of reduction in anchor capacity. The logic of this NMP AMR line item is not consistent with GALL. Also explain why a Unit 1 Table 1 line item is shown with a Unit 2 component.

NMP Response:

This item is addressed under audit item NMP-AI-084 (3.5.1.B-29-01J).

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-086	3.5.1.B-29-03J	Fallin, Mike	E Mail (9/12/0	Clarification	9/12/2005	10/26/200	CLOSED

LRA_Section T 3.5.2.C-1

NRC Issue

This applies to both NMP Units although designated a Unit 2 question. In ALRA table 3.5.2.C-1 (table 2) page 3.5-126 for component type expansion/grouted anchors and aging effect loss of anchor capacity, the GALL volume 2 line item shown is III.B1.2.3-a with the table 1 line item 3.5.1.A-29 and 3.5.1.B-29. The environment is shown as concrete and the note states that it is consistent with GALL. Explain how this AMR line item is consistent with GALL when the GALL line items have a component type of concrete surrounding anchor bolts, a material of concrete, an environment of inside containment and an aging effect of reduction in anchor capacity.

Also applies to ALRA table 3.5.2.C-1 (table 2) page 3.5-127 for component type expansion/grouted anchors and aging effect loss of anchor capacity.

NMP Response:

NMP will make its ALRA consistent with the GALL for all of its expansion/grouted anchors. The current entries for the Loss Of Material for the anchor itself will remain as is. The current line for CS anchor in concrete will be revised. In its place, the Material of CS will be replaced with Concrete (new line with the current line that starts with Concrete), the Environment of Concrete will be replaced with Air and the rest of the line will remain as it is currently displayed.

NMP used the AERM of Loss of Anchor Capacity instead of Reduction in Anchor Capacity and it is intended that these terms have exactly the same meaning.

The lines for aging management by the ASME Section XI IWF will remain as they are currently entered. For the Structures Monitoring Entry for the 1st line on P 3.5-127, the Table 1 Item should be 3.5.1.B-29 only since the line is for NMP2 only.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon **Closed and Accepted issues**

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-114	**B2.1.13-1**	**Baily, Gary**	**Audit (9-19-0**	**Request Informa**	**9/19/2005**	**9/20/2005**	**CLOSED**

LRA_Section **None**

NRC Issue

Define goal setting as used in attribute 3.1 in the PBD as it relates to the goal attributes. (Inspection of Overhead Heavy Load and Light Load Handling Systems Program)

NMP Response:

NMP agrees that reference to goal setting is not appropriate to address that attribute. The PBD will be revised to remove this reference.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-115	B2.1.13-2	Baily, Gary	Audit (9-19-0	Request Informa	9/19/2005	9/19/2005	CLOSED

LRA_Section B2.1.13

NRC Issue

Provide a list of assignments for maintenance, system engineers and operations. (Inspection of Overhead Heavy Load and Light Load Handling Systems Program)

NMP Response:

List was provided to the NRC auditor by Alex Sterio.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-116	B2.1.13-3	Bailey, Gary	Audit (9-19-0	Request Informa	9/19/2005	10/26/200	CLOSED

LRA_Section **B2.1.13**

NRC Issue

Provide the basis for the proposed change to the enhancement to B2.1.13 and A2.1.22. (Inspection of Overhead Heavy Load and Light Load Handling Systems Program)

NMP Response:

As written, the original enhancement listed in the LRA was limited to including corrosion inspections as part of "pre-lift" inspections only. After further review of plant documentation during development of the Program Basis Document, NMP recognized that all inspections, including PM, should be so enhanced, as well. Consequently, the proposed LRA revision expands the existing enhancement to cover all inspection and maintenance activities by removing the "pre-lift" qualifier.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-103	**B2.1.22-01J**	**Browne/Haws/**	**E Mail (9/16/0**	**Clarification**	**9/17/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.22**

NRC Issue

Based on the roadmap for the amended NMP LRA, the following sentence has been added to the LRA Appendix B, Buried Piping and Tanks Inspection Program, under program description on page B2-51: "If an opportunistic inspection does not occur within the first ten years of extended operation, NMPNS will excavate a representative sample for the purpose of inspection." The reason for this added sentence in the ALRA according to the roadmap is NUREG 1801 draft revision 1. However, NUREG 1801, draft revision 1, also has the following sentence under the AMP XI.M34, Buried Piping and Tanks Inspection: "Prior to entering the period of extended operation, the applicant is to verify that there is at least one opportunistic or focused inspection performed within the past ten years." Please explain why the program description in the ALRA for the Buried Piping and Tanks Inspection Program was only revised to address the possible need for focused inspections for the first 10 year period of extended operation and not also the possible need for focused inspections for the 10 year period prior to extended operation.

NMP Response:

The NMP Buried Piping and Tanks program development was based upon DRAFT NUREG-1801, Rev 1 dated January 2005. The statement referenced in question B2.1.22-01J is based upon a later dated draft of NUREG-1801, Rev 1 dated September 2005.
Action: The applicant is in agreement with NUREG-1801, Rev 1 dated September 2005, with no exceptions. The NMP LRA, and the Program Basis document, (PBD), for XI.M34 Buried Piping and Tanks Inspection Program will be amended to reflect NUREG-1801, Rev 1 dated September 2005.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon **Closed and Accepted issues**

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-135	**B2.1.23-01J**	**Anderson, E**	**Audit (9-20-0**	**Request Informa**	**9/20/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.23**

NRC Issue

In the LR-PBD-IWE, there are no Enhancements identified in Table 5.0-1 to identify the affected program attribute for the Enhancement identified in Section 4.2.

NMP Response:

The identified "Enhancement" is not required to ensure consistency with the GALL. It is an improvement to the program that is being made to incorporate a request by the NRC earlier in the LRA review process. In the LR-PBD-IWE, page 5, Section 4.2, Enhancements, add the following sentence to the end of the last paragraph: "This improvement is not required for consistency with the GALL but is an activity NMP is adopting to ensure consistency with industry practice." Also change the 3rd word of the paragraph from 'enhancement" to "improvement." At the beginning of the 2nd sentence, also change "Enhancement:" to "Improvement:".

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-134	**B2.1.23-02J**	**Anderson, E**	**Audit (9-20-0**	**Clarification**	**9/20/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.23**

NRC Issue

For the identified IWE-Enhancement in LRA Section B2.1.23, there are no affected program elements listed. Identify which of the ten elements are affected.

NMP Response:

The reason that there are no elements identified is that the "enhancement" that is included is not an "enhancement" that is required to ensure consistency with the GALL. It is an "enhancement" to the program that has been adopted as a function of the NMP response to an NRC request early in the application review period. To avoid confusion with the specialized definition of "enhancement" in terms of being consistent with the GALL, the following LRA changes are being incorporated.

In Section A1.1.2, in the first sentence of the 2nd para., changed "enhanced" to "improved" and add the following sentence at the end of this para.: "This improvement is not required for consistency with NUREG-1801 but is an activity NMP is adopting to ensure consistency with industry practice."

Make this same change to Section A2.1.2.

In Section B2.1.23, Under the NUREG-1801 Consistency heading, delete the phrase 'and requires enhancements to be consistent with others' at the end of the sentence. Under the Enhancements heading, add a new first paragraph that states 'None.' Revise the new second paragraph to begin 'The following improvement is not required for consistency with NUREG-1801 but is an activity NMP is adopting to ensure consistence with industry practice.' The last sentence of this paragraph is revised by replacing 'Enhancements' with 'This improvement'.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-133	**B2.1.24-01J**	**Anderson, E**	**Audit (9-20-0**	**Typo/Editorial**	**9/20/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.24**

NRC Issue

In LR-PBD-IWL, Revision 1, Table of Contents, Page I, the pagination is incorrect for the last four indicated PBD sections.

NMP Response:

NMP will revise LR-PBD-IWL, Revision 1, to change the Table of Contents page numbers for 6.0, 6.1, 6.2, and 7.0 from 14 to 15.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-132	**B2.1.24-02J**	**Anderson, E**	**Audit (9-20-0**	**Typo/Error**	**9/20/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.24**

NRC Issue

In LRA Appendix B, Section B2.1.24, on Page B2-54, under NUREG-1801 Consistency, there is a typographical error in the 1st sentence. The IWE should be IWL.

NMP Response:

The typographical error will be corrected. Revise Appendix B, Section B2.1.24, Page B2-54, under NUREG-1801 Consistency, to correct the typographical error (Change IWE to IWL).

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-144	**B2.1.27-**	**Anstee, K**	**Audit (9-20-0**	**Request Informa**	**9/20/2005**	**9/21/2005**	**CLOSED**

LRA_Section **B2.1.27**

NRC Issue

1.) Describe and provide justification for how the Masonry Wall Program is consistent with Attribute 4 of the GALL (Revision 0), which states the following: "Unreinforced masonry walls that have not been contained by bracing warrant the most frequent inspection, because the development of cracks may invalidate the existing evaluation basis."

The PBD states in Table 5.0-1 under Subattribute 4.3 that the inspection frequency of 6 years for the unreinforced walls is consistent with the GALL. This stated frequency is the same as that stated for reinforced masonry walls.

NMP Response:

1.) A commitment to enhance the program will be added to the ALRA for the Masonry Wall Program (as managed by the Structures Monitoring Program) based on the GALL text in Attribute 4, "Detection of Aging Effects." The program enhancement will provide guidance for inspecting NMP1 unreinforced masonry walls that are WSLR, and that do not have bracing, more frequently than the reinforced masonry walls. (affected LRA sections: A1.1.34, A1.4 [Commitment Table], and B2.1.28)

2.) Revise the Masonry Walls Program Basis Document (PBD) to include an enhancement to procedure S-MRM-REL-0102. The enhancement will provide guidance for inspecting NMP1 unreinforced masonry walls that are WSLR, and that do not have bracing, more frequently than the reinforced masonry walls.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-153	B2.1.28	Agarwal, S.	Audit (9-21-0	Typo/Error	9/21/2005	10/26/200	CLOSED

LRA_Section B2.1.28

NRC Issue

There is a typo in Section 6.2 of the SMP PBD (page 19). The word "we" should be "were."

NMP Response:

The typo is corrected from 'we' to 'were' in PBD Section 6.2.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon **Closed and Accepted issues**

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-152	**B2.1.28**	**Agarwal, S.**	**Audit (9-21-0**	**Typo/Error**	**9/21/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.28**

NRC Issue

Wood structures are missing from the program description in ALRA Sections A1.1.34 and B2.1.28.

NMP Response:

The description in ALRA Sections A1.1.34 and B2.1.28 is modified by adding, "Unit 1 wooden structure" to the list of materials of construction in the first paragraph.

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-106	B2.1.38-01J	Browne/Haws/	E Mail (9/16/0	Request Docume	9/17/2005	9/20/2005	CLOSED

LRA_Section B2.1.38

NRC Issue

Please provide the NMP1 and NMP2 responses to GL98-04, "Potential for Degradation of the Emergency Core Cooling System and the Containment Spray System after a Loss-Of-Coolant Accident because of Construction and Protective Coating Deficiencies and Foreign Material in Containment."

NMP Response:

NMP's response GL98-04 is included in the Program Basis Document for the GALL XI.S8 "Protective Coating Monitoring and Maintenance Program" and will be available for NRC review

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-155	**B2.1.40**	**Agarwal, S.**	**Audit (9-21-0**	**Typo/Error**	**9/21/2005**	**10/26/200**	**CLOSED**

LRA_Section **B2.1.40**

NRC Issue

It is the understanding of the Audit Team that the Wooden Power Pole Program is a sub-program of the Structures Monitoring Program. In Appendices A and B of the ALRA for the Masonry Wall Program, which is also a sub-program of the Structures Monitoring Program, this relationship is addressed. In the applicable sections of Appendices A and B for the Wooden Power Pole Program, this relationship is not addressed. Please address this inconsistency.

NMP Response:

(a) The description in ALRA Section A2.1.40 is modified by adding the following at the end of the first paragraph: "The Wooden Power Pole Inspection Program is implemented by the Structures Monitoring Program for managing specific aging effects."
(b) ALRA Section B2.1.40 is modified by adding the following to the Program Description: "The Wooden Power Pole Inspection Program is implemented by the Structures Monitoring Program (B 2.1.28) for managing specific aging effects."

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon **Closed and Accepted issues**

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-154	B2.1.40	Agarwal, S.	Audit (9-21-0	Clarification	9/21/2005	10/26/200	CLOSED

LRA_Section B2.1.40

NRC Issue

The Wooden Power Pole Program has been referenced throughout Table 5.0-1 of the SMP PBD. According to the ALRA, this program is supposed to apply only to Unit 2. In Table 2.0-1 of the SMP PBD, for Unit 1, the Component/Commodity Group of Treated Wood in Air is listed. This appears to be a disconnect/anomaly. Please address this issue.

NMP Response:

The PBD has been revised to:
(a) Remove the reference to the Wooden Power Pole Program throughout Table 5.0-1;
(b) In Table 2.0-1, add "Wooden Structure Over Nitrogen Equipment" under Component / Commodity Groups; and
(c) In Table 2.0-1, add "Treated Wood in Soil above GWT" under Component / Commodity Group.

The following changes were also made to the PBD:
(a) Added Unit 1 Wooden Structure Over Nitrogen Equipment to be included in S-MRM-REL-0102 enhancement in Table 4.2-1 and Table 5.0-1, GALL Attribute No. 1.1
(b) Referred to Unit 2 Wooden Power Pole Inspection PBD in Table 5.0-1, as it applies to Wooden Structure Over Nitrogen Equipment under Parameters Monitored/Inspected, Detection of Aging Effects, and Acceptance criteria; and
(c) Added "Wooden Structure Over Nitrogen Equipment" and "Treated Wood in soil above GWT" to Attachment 1.

The ALRA must also be revised to utilize the structure name that has been adopted by the site during this audit and to include the portion of that structure that has been determined to be buried in the soil. These chnages have been identified below under the "LRA Sections that must be changed."

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-170	**T 3.5.2.A-11**	**Fallin, Mike**	**Audit (9-22-0**	**Typo/Error**	**9/22/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.5.2.A-11**

NRC Issue

Table 3.5.2.A-11 (ALRA page 3.5-85) for component type "Doors". Note should be "D" instead of "C."

NMP Response:

NMP will revise Table 3.5.2.A-11 (ALRA page 3.5-85) for component type "Doors". Note should be "D" instead of "C."

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-166	**T 3.5.2.A-6**	**Fallin, Mike**	**Audit (9-22-0**	**Typo/Error**	**9/22/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.5.2.A-6**

NRC Issue

Table 3.5.2.A-6 (ALRA page 3.5-76) for component type "Doors". Note should be "D" instead of "C."

NMP Response:

NMP will revise Table 3.5.2.A-6 (ALRA page 3.5-76) for component type "Doors". Note should be "D" instead of "C."

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-167	**T 3.5.2.A-7**	**Fallin, Mike**	**Audit (9-22-0**	**Typo/Error**	**9/22/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.5.2.A-7**

NRC Issue

Table 3.5.2.A-7 (ALRA page 3.5-78) for component type "Doors". Note should be "D" instead of "C."

NMP Response:

NMP will revise Table 3.5.2.A-7 (ALRA page 3.5-78) for component type "Doors". Note should be "D" instead of "C."

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon — Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-169	**T 3.5.2.A-8**	**Fallin, Mike**	**Audit (9-22-0**	**Typo/Error**	**9/22/2005**	**10/26/200**	**CLOSED**

LRA_Section **T 3.5.2.A-8**

NRC Issue

Table 3.5.2.A-8 (ALRA page 3.5-80) for component type "Doors". Note should be "B" instead of "A."

NMP Response:

NMP will revise Table 3.5.2.A-8 (ALRA page 3.5-80) for component type "Doors". Note should be "B" instead of "A."

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon

Closed and Accepted issues

NMP_No:	NRC ID	NMP Resp:	Source:	Issue Type	Opened:	Closed:	NRC Status:
NMP-AI-168	T 3.5.2.A-9	Fallin, Mike	Audit (9-22-0	Typo/Error	9/22/2005	10/26/200	CLOSED

LRA_Section T 3.5.2.A-9

NRC Issue

Table 3.5.2.A-9 (ALRA pages 3.5-82 and 83) for component type "Doors". Note should be "B" instead of "A."

NMP Response:

NMP will revise Revise Table 3.5.2.A-9 (ALRA pages 3.5-82 and 83) for component type "Doors". Note should be "B" instead of "A."

NRC Audit Issues:
Sorted by NRC Inspector and NRC Issue Number

Woodfield, Jon

Closed and Accepted issues

Audit Item	LRA Sect.	ALRA Change
NMP-AI-001	T 3.1.1.A	For Item 3.1.1.A-01 on p. 3.1-20 in the Discussion Column, delete bulleted items "Control Rod Drive Return Line nozzle thermal sleeves" and Feedwater nozzle thermal sleeves" and on p. 3.1-21, delete the bulleted item "Steam Dryers", for the 4th bullet, delete the words, "and leak detection lines", and add new bulleted item "Heat Exchangers (Emergency Cooling)".
	T 3.1.1.B	For Item 3.1.1.B-01 on p. 3.1-32 in the Discussion Column, delete the bulleted items "Core Spray, CRD Return Line, Feedwater, Residual Heat Removal, and Reactor Recirculation nozzle thermal sleeves" and "leak detection lines" and on p. 3.1-33, delete the bulleted item "Steam Dryers".
	T 3.1.2.A-1	On p. 3.1-45 for the Thermal Sleeves Component Type, delete the two line items for the Cumulative Fatigue Damage AERM and continuing on p. 3.1-46 for the Thermal Sleeves Component Type, delete the line item for the Cumulative Fatigue Damage AERM.
		On p. 3.1-47, delete the Top Head (Leak Detection Lines) line item for Cumulative Fatigue Damage (1st line item on the page)
		On p. 3.1-49, the "Vessel Shells" line item is deleted and split into 2 separate line items. The 1st of these has two Component Types Column entries. They are "Vessel Shells" with the 2 bulleted items "Beltline" and "Lower Shell" and "Vessel Welds" with the bulleted Item "Beltline". The Intended Function (IF) Column entry is "PB, SFS"; the Material Column entry is "Carbon or Low Alloy Steel (Yield Strength <100 Ksi)(Clad with Stainless Steel)" and the Environment Column entry is "Treated Water or Stream, High temperature, Neutron Fluence $\geq 1X10^{17}$ n/cm^2 – BWR Reactor Pressure Vessel". There are then 2 AERM line items. The 1st of these has the AERM Column entry of "Cumulative Fatigue Damage"; the AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.A1.2-b"; the Table 1 Item Column entry of "3.1.1.A-01"; and the Notes Column entry of "A". The 2nd of these has the AERM Column entry of "Loss of Fracture Toughness", the AMP Column entry of "Reactor Vessel Surveillance Program", the GALL Item Column entry of "IV.A1.2-d", the Table 1 Item Column entry of "3.1.1.A-05", and the Notes Column entry of "B".
		For the 2nd Vessel Shells line item, the Component Type Column entry is "Vessel Shells" with the 2 bulleted items "Upper Nozzle Shell" and "Upper RPV Shell", the IF Column entry is "PB, SFS"; the Material Column entry is "Carbon or Low Alloy Steel (Yield Strength <100 Ksi)(Clad with Stainless Steel)"; the Environment Column entry is "Treated Water or Stream, High temperature, BWR Reactor Pressure Vessel"; the AERM Column entry is "Cumulative Fatigue Damage"; the AMP Column entry is "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry is "IV.A1.2-a, IV.A1.2-b", the Table 1 Item Column entry is "3.1.1.A-01"; and the Notes Column entry is "A".
		On pp. 3.1-49 and 3.1-50, the Vessel Shell Welds (including attachment welds) line items are deleted and replaced with 2 line items. The 1st of these has the Component Type Column entry of "Vessel Shell Welds"; the IF Column entry of "PB"; the Material Column entry of "Carbon or Low Alloy Steel (Yield Strength <100 Ksi)(Clad with Stainless Steel)"; the Environment Column entry of "Treated Water or Stream, High temperature, BWR Reactor Pressure Vessel"; the AERM Column entry of "Cumulative Fatigue Damage"; the AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.A1.2-b"; the Table 1 Item Column entry of 3.1.1.A-01; and the Notes Column entry of "A".

Audit Item	LRA Sect.	ALRA Change
NMP-AI-001 (cont'd.)	T 3.1.2.A-1 (cont'd.)	The 2nd of these 2 line items has the Component Type Column entry of "Vessel Attachment Welds" and the IF Column entry of "SFS". It then has 2 Material Column line items. The 1st of these has the Material Column entry of "Nickel Based Alloys" (NBA) and the Environment Column entry of "Treated Water or Stream, High temperature, BWR Reactor Pressure Vessel". This NBA line item then has 2 AERM Column entries. The 1st of these is "Cracking" with the AMP Column entries of "BWR Vessel ID Attachment Welds Program, Water Chemistry Control Program"; the GALL Item Column entry of "IV.A1.2-e"; the Table 1 Item Column entry of 3.1.1.A-28; and the Notes Column entry of "B". The 2nd AERM Column entry is "Cumulative Fatigue Damage" with the AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.A1.4-b"; the Table 1 Item Column entry of "3.1.1.A-01"; and the Notes Column entry of "C, 11". The 2nd Material Column entry for the "Vessel Attachment Welds" is "Wrought Austenitic Stainless Steel" (WASS) with the Environment Column entry of "Treated Water or Stream, High temperature, Neutron Fluence $\geq 1X10^{17}$ n/cm^2 – BWR Reactor Pressure Vessel". This WASS line item then has 2 AERM Column entries. These AERMs and their respective column entries are identical in all respects to the entries for the NBA Vessel Attachment Welds.
	T 3.1.2.A-2	On p. 3.1-51, for the Core Plate and Bolts Component Type line item for Cumulative Fatigue Damage, change the AMP Column entry to "None" and the Notes Column entry to "E, 70".
		On p. 3.1-52, for both Core Shroud Head Bolts and Collars line items for Cumulative Fatigue Damage (one for NBA and the other for WASS), change the AMP Column entries to "None" and the Notes Column entries to "E, 71".
		On p. 3.1-53, for both Core Shroud Support Structure line items for Cumulative Fatigue Damage, add "72" to the Notes Columns.
		On p. 3.1-54, for the Core Spray Lines and Spargers Component Type line item for Cumulative Fatigue Damage, change the AMP Column entry to "None" and the Notes Column entry to "E, 73".
		On p. 3.1-55, for the Orificed Fuel Support Component Type, add a new AERM line item for "Cumulative Fatigue Damage" with the AMP Column entry of "None"; the GALL Item Column entry of "IV.B1.5-b"; the Table 1 Item Column entry of "3.1.1.A-01" and the Notes Column entry of "E, 71".
		On p. 3.1-56, for the Top Guides Component Type line item for Cumulative Fatigue Damage, change the AMP Column entry to "None" and the Notes Column entry to "E, 75".
	T 3.1.2.B-1	On p. 3.1-74, delete both Cumulative Fatigue Damage line items for the Nozzle Thermal Sleeves.
		On p. 3.1-77, delete the Cumulative Fatigue Damage line item for the Top Head (Leak Detection Lines).
		On p. 3.1-78, delete the current entries for Vessel Shells. It is replaced with 2 new Component Types as detailed on the following two lines.

Audit Item	LRA Sect.	ALRA Change
NMP-AI-001 (cont'd.)	T 3.1.2.B-1 (cont'd.)	The 1st new Vessel Shells Component Type has the Component Type "Vessel Shells" with the 2 bulleted items "Lower Intermediate Shell" and "Lower Shell" and the Component Type "Vessel Welds" with the bulleted item of "Beltline". The IF Column entry is "PB, SFS" with the Materials Column entry of "Carbon or Low Alloy Steel (Yield Strength <100 Ksi)". The Environment Column is split into 2 line items. The Environment Column entry for the 1st of these is "Treated Water or Stream, High temperature, BWR Reactor Pressure Vessel" with the AERM Column entry of "Cumulative Fatigue Damage"; the AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.A1.2-b"; the Table 1 Column entry of "3.1.1.B-01" and the Notes Column entry of "A". The Environment Column entry for the 2nd environment is "Treated Water or Stream, High temperature, Neutron Fluence $\geq 1X10^{17}$ n/cm^2 – BWR Reactor Pressure Vessel". This has 2 separate AERMs. The 1st AERM Column entry for this environment is "Cumulative Fatigue Damage with an AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.A1.2-b"; the Table 1 Column entry of "3.1.1.B-01" and the Notes Column entry of "A". The 2nd AERM column entry is "Loss of Fracture Toughness" with the AERM Column entry of "Reactor Vessel Surveillance Program"; the GALL Item Column entry of IV.A1.2-d: the Table 1 Column entry of "3.1.1.B-05"; and the Notes Column entry of B.
		The 2nd new Vessel Shells Component Type has the Component Type "Vessel Shells" with the 2 bulleted items "Upper Intermediate Shell" and "Upper Shell". The IF Column entry is "PB, SFS" with the Material Column entry of "Carbon or Low Alloy Steel (Yield Strength <100 Ksi)(Clad with Stainless Steel)"; the Environment Column entry of "Treated Water or Stream, High temperature, BWR Reactor Pressure Vessel"; the AERM Column entry of "Cumulative Fatigue Damage"; the AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.A1.2-a", the Table 1 Item Column entry of "3.1.1.B-01"; and the Notes Column entry of "A".
		On pp. 3.1-79 and 3.1-80, delete all current entries for the Component Type Vessel Welds (including attachment welds). This Component Type is being replaced with 3 Component Types – "Vessel Welds", "Vessel Welds (nozzle weld overlays)", and "Vessel Attachment Welds". The new entries for these Component Types are described on the following 6 lines of this table.
		For the Component Type "Vessel Welds", the IF Column entry is "PB" and there are 2 different Material line items. The 1st Materials line item has the Material Column entry of "Carbon or Low Alloy Steel (Yield Strength <100 Ksi)(Clad with Stainless Steel)"; the Environment Column entry is "Treated Water or Stream, High temperature, BWR Reactor Pressure Vessel"; the AERM Column entry is "Cumulative Fatigue Damage"; the AMP Column entry is "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry is "IV.A1.2-a, IV.A1.2-b", the Table 1 Item Column entry is "3.1.1.B-01"; and the Notes Column entry is "A". The 2nd Materials line item has the Material Column entry of "Carbon or Low Alloy Steel (Yield Strength <100 Ksi)"; the Environment Column entry is "Treated Water or Stream, High temperature, BWR Reactor Pressure Vessel"; the AERM Column entry is "Cumulative Fatigue Damage"; the AMP Column entry is "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry is "IV.A1.1-b", the Table 1 Item Column entry is "3.1.1.B-01"; and the Notes Column entry is "C, 74".

Audit Item	LRA Sect.	ALRA Change
NMP-AI-001 (cont'd.)	T 3.1.2.B-1 (cont'd.)	For the Component Type "Vessel Welds (nozzle weld overlays)", the Material Column entry is "Nickel Based Alloys" with an Environment Column entry of "Treated Water or Stream, High temperature, BWR Reactor Pressure Vessel". There are 2 AERM line items for this Component Type. The 1st AERM line item has the AERM Column entry of "Cracking"; the AMP Column entries of "BWR Vessel ID Attachment Welds Program" and "Water Chemistry Control Program"; the GALL Item Column entry of "IV.A1.2-e" the Table 1 Item Column entry of "3.1.1.B-28" and the Notes Column entry of "D, 34". The 2nd AERM line item has the AERM Column entry of "Cumulative Fatigue Damage"; the AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.A1.4-b" the Table 1 Item Column entry of "3.1.1.B-01" and the Notes Column entry of "C, 34".
		For the Component Type "Vessel Attachment Welds", the IF Column entry is "SFS". There are 3 different Material line items for this Component Type – Carbon Steel, NBA, and WASS. The entries for each of these Material line items are described on the following 3 lines of this table.
		For the Carbon Steel Vessel Attachment Welds, the Material Column entry is "Carbon or Low Alloy Steel (Yield Strength <100 Ksi)"; the Environment Column entry is "Treated Water or Stream, High temperature, BWR Reactor Pressure Vessel"; the AERM Column entry is "Cumulative Fatigue Damage"; the AMP Column entry is "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry is "IV.A1.2-b", the Table 1 Item Column entry is "3.1.1.B-01"; and the Notes Column entry is "C, 11".
		For the NBA Vessel Attachment Welds, the Material Column entry is "Nickel Based Alloys" and the Environment Column entry is "Treated Water or Stream, High temperature, BWR Reactor Pressure Vessel". There are 2 AERMs identified for these welds. The 1st of these has "Cracking" in the AERM Column. This AERM then has 2 line items for aging management. The 1st Cracking AERM line item identifies the AMP Column entries of "BWR Vessel ID Attachment Welds Program" and "Water Chemistry Control Program"; the GALL Item Column entry of "IV.A1.2-e"; the Table 1 Item entry of "3.1.1.B-28"; and the Notes Column entry of "B". The 2nd Cracking AERM line item identifies the AMP Column entries of "BWR Stress Corrosion Cracking Program" and "Water Chemistry Control Program"; the GALL Item entry of "IV.A1.4-a"; the Table 1 Item entry of "3.1.1.B-29"; and the Notes Column entry of "B, 69". The 2nd AERM Column entry is "Cumulative Fatigue Damage"; the AMP Column entry is "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry is "IV.A1.4-b", the Table 1 Item Column entry is "3.1.1.B-01"; and the Notes Column entry is "C, 11".

Audit Item	LRA Sect.	ALRA Change
NMP-AI-001 (cont'd.)	T 3.1.2.B-1 (cont'd.)	For the WASS Vessel Attachment Welds, the Material Column entry is "Wrought Austenitic Stainless Steel"; the Environment Column entry is "Treated Water or Stream, High temperature, BWR Reactor Pressure Vessel". There are 2 AERMs identified for these welds. The 1st of these has "Cracking" in the AERM Column and identifies the AMP Column entries of "BWR Vessel ID Attachment Welds Program" and "Water Chemistry Control Program"; the GALL Item Column entry of "IV.A1.2-c"; the Table 1 Item entry of "3.1.1.B-28"; and the Notes Column entry of "B". The 2nd AERM Column entry is "Cumulative Fatigue Damage"; the AMP Column entry is "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry is "IV.A1.4-b", the Table 1 Item Column entry is "3.1.1.B-01"; and the Notes Column entry is "C, 11".
	T 3.1.2.B-2	On p. 3.1-82, for the "Core Plate, Bolts, and Supports" and the "Core Shroud" Component Types, add new AERM line items with the AERM Column entry of "Cumulative Fatigue Damage"; the AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.B1.1-c", the Table 1 Item Column entry of "3.1.1.B-01"; and the Notes Column entry of "A" for the "Core Plate, Bolts, and Supports" and "C" for the "Core Shroud".
		On p. 3.1-85, for the "Core Spray Lines and Spargers" and the "Differential Pressure Liquid Control Line" Component Type, add new AERM line items with the AERM Column entry of "Cumulative Fatigue Damage"; the AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.B1.3-b", the Table 1 Item Column entry of "3.1.1.B-01"; and the Notes Column entry of "A" for the "Core Spray Lines and Spargers" and "C" for the "Differential Pressure Liquid Control Line".
		On p. 3.1-86, for the NBA and WASS Jet Pump Assemblies, add new AERM line items with the AERM Column entry of "Cumulative Fatigue Damage"; the AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.B1.4-b", the Table 1 Item Column entry of "3.1.1.B-01"; and the Notes Column entry of "A, 62" for the NBA line item and "A, 63" for the WASS line item.
		On p. 3.1-87, for the WASS Jet Pump Assemblies in an environment of "Treated Water or Stream, High temperature, Neutron Fluence $\geq 1X10^{20}$ n/cm^2 – BWR Reactor Pressure Vessel", for the line item with the Notes Column entry of "B, 66", add a new AERM line item with the AERM Column entry of "Cumulative Fatigue Damage"; the AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.B1.4-b", the Table 1 Item Column entry of "3.1.1.B-01"; and the Notes Column entry of "A, 66".
		Also on p. 3.1-87, for the WASS Jet Pump Assemblies in an environment of "Treated Water or Stream, High temperature, Neutron Fluence $\geq 1X10^{20}$ n/cm^2 – BWR Reactor Pressure Vessel", for the line item with the Notes Column entry of "B, 67", add a new AERM line item with the AERM Column entry of "Cumulative Fatigue Damage"; the AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.B1.4-b", the Table 1 Item Column entry of "3.1.1.B-01"; and the Notes Column entry of "A, 67".

Audit Item	LRA Sect.	ALRA Change
NMP-AI-001 (cont'd.)	T 3.1.2.B-2 (cont'd.)	On p. 3.1-88, for the Orificed Fuel Supports, add a new AERM line item with the AERM Column entry of "Cumulative Fatigue Damage"; the AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.B1.5-b", the Table 1 Item Column entry of "3.1.1.B-01"; and the Notes Column entry of "A".
		On p. 3.1-89, for the Steam Dryer, delete the AERM line item for Cumulative Fatigue Damage.
		Also on p. 3.1-89, for the Top Guide and Supports, add a new AERM line item with the AERM Column entry of "Cumulative Fatigue Damage"; the AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.B1.2-b", the Table 1 Item Column entry of "3.1.1.B-01"; and the Notes Column entry of "A".
	Sect. 3.1 Plant Specific Notes	On p. 3.1-117, add the following new plant specific notes: 70. No applicable fatigue analysis exists in the CLB for NMP1. BWRVIP-25-A does not identify cumulative fatigue damage as a significant aging effect or generic TLAA. 71. No applicable fatigue analysis exists in the CLB for this component. 72. TLAA for core shroud repair clamps and support welds – The core shroud vessel attachment weld TLAA is addressed as part of the vessel. No applicable TLAA to other components since no fatigue analysis exists in the CLB. BWRVIP-76-A and BWRVIP-38-A do not identify cumulative fatigue damage as a significant aging effect or as a generic TLAA. 73. No applicable TLAA exists in the CLB. BWRVIP-18-A does not identify cumulative fatigue damage as a significant aging effect or generic TLAA. 74. Unclad top head pressure boundary welds are not included in NUREG-1801 for this GALL Item. 75. No applicable fatigue analysis exists in the CLB for NMP1. BWRVIP-26-A does not identify cumulative fatigue damage as a significant aging effect or generic TLAA.
	T 3.2.2.A-3	On p. 3.2-50, delete the Cumulative Fatigue Damage line item for Bolting.
		On p. 3.2-51, for the Heat Exchangers, add a new AERM line item with the AERM Column entry of "Cumulative Fatigue Damage"; the AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.C1.1-h"; the Table 1 Item Column entry of "3.1.1.A-01"; and the Notes Column entry of "C".
		On p. 3.2-52, for the Heat Exchangers in Treated Water or Steam, temperature ≥482°F, add a new AERM line item with the AERM Column entry of "Cumulative Fatigue Damage"; the AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.C1.1-h"; the Table 1 Item Column entry of "3.1.1.A-01"; and the Notes Column entry of "C".
		On p. 3.2-53, for the Heat Exchangers in Treated Water or Steam, temperature ≥212°F, but <482°F, add a new AERM line item with the AERM Column entry of "Cumulative Fatigue Damage"; the AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.C1.1-h"; the Table 1 Item Column entry of "3.1.1.A-01"; and the Notes Column entry of "C".

Audit Item	LRA Sect.	ALRA Change
NMP-AI-001 (cont'd.)	T 3.2.2.A-3 (cont'd.)	On p. 3.2-54, for the Heat Exchangers in Treated Water or Steam, temperature ≥482°F, add a new AERM line item with the AERM Column entry of "Cumulative Fatigue Damage"; the AMP Column entry of "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry of "IV.C1.1-h"; the Table 1 Item Column entry of "3.1.1.A-01"; and the Notes Column entry of "C".
	T 3.2.2.B-2	On p. 3.2-70, delete the 2 Cumulative Fatigue Damage line items for Bolting.
	T 3.2.2.B-3	On p. 3.2-76, delete the Cumulative Fatigue Damage line item for Bolting.
	T 3.2.2.B-4	On p. 3.2-84, delete the Cumulative Fatigue Damage line item for Bolting.
		On p. 3.2-85, delete the Cumulative Fatigue Damage line item for Bolting.
	T 3.2.2.B-5	On p. 3.2-98, delete the Cumulative Fatigue Damage line item for Bolting.
		On p. 3.2-102, delete the Cumulative Fatigue Damage line item for Piping and Fittings in a Treated Water, temperature <140°F, Low Flow environment.
	T 3.3.2.A-10	On p. 3.3-147, delete the Cumulative Fatigue Damage line item for Bolting.
	T 3.3.2.A-15	On p. 3.3-165, delete the Cumulative Fatigue Damage line item for Heat Exchangers.
	T 3.3.2.A-17	On p. 3.3-172, delete the Cumulative Fatigue Damage line item for Bolting.
	T 3.3.2.A-18	On p. 3.3-183, delete the Cumulative Fatigue Damage line item for Heat Exchangers.
		On p. 3.3-184, delete the Cumulative Fatigue Damage line item for the Rupture Disc.
	T 3.3.2.B-21	On p. 3.3-252, delete the Cumulative Fatigue Damage line item for Bolting.
	T 3.3.2.B-24	On p. 3.3-261, delete the Cumulative Fatigue Damage line item for Bolting.
	T 3.3.2.B-30	On p. 3.3-285, delete the Cumulative Fatigue Damage line item for Bolting.
	T 3.4.2.B-4	On p. 3.4-67, delete the Cumulative Fatigue Damage line item for Flexible Hose.
	3.5.2.A-1	On p. 3.5-8, add Cumulative Fatigue Damage to the Aging Effects Requiring Management Section.
	3.5.2.A-2	On p. 3.5-10, add Cumulative Fatigue Damage to the Aging Effects Requiring Management Section.
	3.5.2.B-2	On p. 3.5-22, add Cumulative Fatigue Damage to the Aging Effects Requiring Management Section.

Audit Item	LRA Sect.	ALRA Change
NMP-AI-001 (cont'd.)	T 3.5.1.A	On p. 3.5-42 for Item 3.5.1.A-01, replace the 1st paragraph of the Discussion Column entry with "Not applicable for drywell penetrations because no fatigue analysis exists in the CLB." In the 2nd paragraph, replace "these components" with "drywell penetrations". Add new 3rd paragraph, "Consistent with NUREG-1801 for torus attached piping penetrations. See Section 4.6.5."
		On p. 3.5-46 for Item 3.5.1.A-13, replace the Discussion Column entry with, "Consistent with NUREG-1801 with the exception of the Drywell Head. The Torus, Vent System, and Pool Shell are addressed by a Fatigue TLAA (see Section 4.6.1). No CLB Fatigue analysis exists for the Drywell Head."
		On p. 3.5-52 for Item 3.5.1.A-30, replace the Discussion Column entry with, "Consistent with NUREG-1801 for Torus support columns, support saddles, and shell welds, and downcomer tie rods. A CLB Fatigue analysis does not exist for other support members."
	T 3.5.1.B	On p. 3.5-53 for Item 3.5.1.B-01, replace the Discussion Column entry with, "Consistent with NUREG-1801."
		On p. 3.5-56 for Item 3.5.1.B-13, replace the Discussion Column entry with, "Not applicable to NMP2 since a CLB fatigue analysis doesn't exist."
		On p. 3.5-62 for Item 3.5.1.B-30, replace the Discussion Column entry with, "There is no CLB Fatigue analysis for support members."
	T 3.5.2.A-1	On p. 3.5-66, for Structural Steel (Carbon and Low Alloy Steel) in Air, add a new AERM line item. The AERM Column entry is "Cumulative Fatigue Damage"; the AMP Column entry is "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry is "II.B1.1.1-c"; the Table 1 Item Column entry is "3.5.1.A-13, 3.5.1.A-30"; and the Notes Column entry is "A, 8".
		On p. 3.5-67, for Structural Steel (Carbon and Low Alloy Steel) in Demineralized Untreated Water, Low Flow, add a new AERM line item. The AERM Column entry is "Cumulative Fatigue Damage"; the AMP Column entry is "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry is "II.B1.1.1-c"; the Table 1 Item Column entry is "3.5.1.A-13, 3.5.1.A-30"; and the Notes Column entry is "A, 8".
	T 3.5.2.A-2	On p. 3.5-72, for Torus Support Columns, add a new AERM line item. The AERM Column entry is "Cumulative Fatigue Damage"; the AMP Column entry is "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry is "III.B1.3.1-b"; the Table 1 Item Column entry is "3.5.1.A-30"; and the Notes Column entry is "A, 9".
	T 3.5.2.B-1	On p. 3.5-90, for Structural Steel (Carbon and Low Alloy Steel) in Air, add a new AERM line item. The AERM Column entry is "Cumulative Fatigue Damage"; the AMP Column entry is "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry is "II.B4.1-b"; the Table 1 Item Column entry is "3.5.1.B-01"; and the Notes Column entry is "A, 10". Additionally, for this AERM and AMP, a new line item is added for the GALL Item, Table 1 Item, and Notes Columns with no entries for the GALL Item and Table 1 Item Columns and the entry of "I, 11" for the Notes Column.

Audit Item	LRA Sect.	ALRA Change
NMP-AI-001 (cont'd.)	T 3.5.2.B-1 (cont'd.)	On p. 3.5-90, for Structural Steel (Carbon/Low Alloy Clad with Stainless Steel) in Air, add a new AERM line item. The AERM Column entry is changed from "None" to "Cumulative Fatigue Damage"; the AMP Column entry is changed from "None" to "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry is "II.B2.1.1-b"; the Table 1 Item Column entry is "3.5.1.B-13"; and the Notes Column entry is changed from "None" to "A, 12".
		On p. 3.5-91, for Structural Steel (Carbon/Low Alloy Clad with Stainless Steel) in Demineralized Untreated Water, add a new AERM line item. The AERM Column entry is "Cumulative Fatigue Damage"; the AMP Column entry is "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry is "II.B2.1.1-b"; the Table 1 Item Column entry is "3.5.1.B-13"; and the Notes Column entry is "A, 12".
		On p. 3.5-91, for Structural Steel (Wrought Austenitic Stainless Steel) in Air, add a new AERM line item. The AERM Column entry is changed from "None" to "Cumulative Fatigue Damage"; the AMP Column entry is changed from "None" to "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry is "II.B2.1.1-b, II.B4.1-b"; the Table 1 Item Column entry is "3.5.1.B-01, 3.5.1.B-13"; and the Notes Column entry is changed from "None" to "A, 10, 12".
		On p. 3.5-91, for Structural Steel (Wrought Austenitic Stainless Steel) in Demineralized Untreated Water, add a new AERM line item. The AERM Column entry is "Cumulative Fatigue Damage"; the AMP Column entry is "TLAA, evaluated in accordance with 10 CFR 54.21(c)"; the GALL Item Column entry is "II.B2.1.1-b, II.B4.1-b"; the Table 1 Item Column entry is "3.5.1.B-01, 3.5.1.B-13"; and the Notes Column entry is "A, 10, 12".
	Sect. 3.5 Plant Specific Notes	On p. 3.5-132, add the following new plant specific notes: 8. This line item applies to the NMP1 Torus, Main Vents, Vent Header, Downcomers, and Downcomer Tie Straps. 9. This line item applies to the NMP1 Torus Support Columns and Saddles. 10. This line item applies to the NMP2 Containment Penetrations (Mechanical). 11. This line item applies to the NMP2 Containment Liner. 12. This line item applies to the NMP2 Suppression Pool Liner.
NMP-AI-004	T 3.1.2.A-1	See the changes identified for T 3.1.2.A-1 on pp. 1 and 2 of this table.
NMP-AI-005	T 3.1.2.A-5	Revise Table 3.1.2.A-5 (p. 3.1-70) to correct the AMPs for CASS valves such that the Section XI, OTI, and WCC Programs are assigned to the valves with a PB IF and the OTI and WCC Programs are assigned to the valves with the IF of LBS, SIA.
NMP-AI-007	T 3.1.2.A-1	Remove the ISI Program for the Top Head (Leak Detection Lines) (p. 3.1-47) and Valves (p. 3.1-48) with an IF of LBS, SIA.
NMP-AI-008	T 3.1.2.A-3	Revise the 'Closure Bolting' component type (p. 3.1-57) to reference Note B instead of Note E for the Bolting Integrity Program.
	T 3.1.2.A-5	Revise the 'Closure Bolting' component type (p. 3.1-65) to reference Note B instead of Note E for the Bolting Integrity Program.

Audit Item	LRA Sect.	ALRA Change
NMP-AI-009	T 3.3.2.A-17	On the bottom of p. 3.3-177 and the top of p. 3.3-178 for CASS Valves having the AERM of 'Cracking' (the line items that have the GALL Item of IV.C1.3-c), replace the IWB, C, D Program with the BWRSCC Program.
NMP-AI-010	T 3.1.1.A	Revise the Discussion Column for Item 3.1.1.A-30 (p. 3.1-29) to add the Flux Monitor Penetrations which are also managed by the BWRVIP.
	T 3.1.2.A-1	On p. 3.1-44, for NBA; WASS Penetrations in the TWS, High Temperature - BWR Reactor Pressure Vessel environment, the line item entry for the BWRVIP should also include the WCC Program.
NMP-AI-011	T 3.1.1.A	Revise the Discussion column of Item 3.1.1.A-31 (p. 3.1-30) to delete the reference to the Control Rod Guide Tubes.
	T 3.1.2.A-2	For Control Rod Guide Tubes (p. 3.1-51), change Note D to Note B, 13 to indicate guide tubes equivalent to CR drive assembly referenced in GALL.
NMP-AI-014	T 3.1.2.B-1	See the changes identified for T 3.1.2.B-1 on pp. 2 through 5 of this table.
NMP-AI-015	T 3.2.2.A-1	Correct the typo in Table 3.2.2.A-1 (p. 3.2-36, Heat Exchanger line item) to change 3.1.2.A-05 to 3.2.1.A-05.
NMP-AI-016	T 3.1.2.B-1	For Nozzles (p. 3.1-72) with the Material "Carbon and Low Alloy Steel (Yield Strength < 100 ksi)" and Environment "Treated Water or Steam, Neutron Fluence $\geq 1x10^{17}$ n/cm2 – BWR Reactor Pressure Vessel" and the AERM of "Cumulative Fatigue Damage", change the Notes column entry to "C, 76". For the "Loss of Fracture Toughness" AERM line item, add "IV.A1.2-d" and "3.1.1.B-05" to the GALL and Table 1 Item columns, respectively, and change the Notes column entry from "E" to "C, 76".
	Sect. 3.1 Plant Specific Notes	On p. 3.1-117, add the following new plant specific note: 76. This line item applies to the RHR/HPCI (N6) and Water Level (N13) Nozzles.
NMP-AI-017	T 3.2.2.A-3	On p. 3.2-56, change the GALL Item for the 2nd table line from "V.D.2.1-a" to "V.D2.1-a".
NMP-AI-018	3.4.2.A.4	Under Environments for Piping and Fittings (p. 3.4-46), replace DUW with TW <140°F.
	T 3.4.2.A-4	See the response to RAI 2.3.4.5 from NMP Letter NMP1L 1958, dated 7/15/05. In the change described, change the Environment for the Y-Quenchers from DUW to TW <140°F.
NMP-AI-020	T 3.1.2.B-1	Correct the typo (p. 3.2-60, top line item) in the Table 1 Item column to change 3.2.1.4-04 to 3.2.1.A-04.
NMP-AI-022	T 3.2.1.A	Revise the Discussion column for Table 1 line item 3.2.1.A-06 (p. 3.2-22) to reference Table 3.3.2.A-14 vs. Table 3.3.2.A-15. Also, delete the last sentence of the first paragraph.

Audit Item	LRA Sect.	ALRA Change
NMP-AI-022 (cont'd.)	T 3.3.2.A-14	Revise Table 3.3.2.A-14 for Piping and Fittings with a PB IF, Carbon Steel material and Demineralized Untreated Water environment (p. 3.3-157) to add V.C.1-a for the GALL Item, to add 3.2.1.A-03, 3.2.1.A-05, and 3.2.1.A-06 for the Table 1 Item and to change the Note from G to A.
		Revise Table 3.3.2.A-14 for Valves with a PB IF, Carbon Steel material and Demineralized Untreated Water, Low Flow environment (p. 3.3-160) to add V.C.1-a for the GALL Item, to add 3.2.1.A-03, 3.2.1.A-05 and 3.2.1.A-06 for the Table 1 Item and to change the Note from blank to A.
NMP-AI-023	T 3.3.2.A-16	Revise the row for Blowers with Polymer material (p. 3.3-170) to reference V.B.1-b and 3.2.1.A-07 for the GALL Item and Table 1 Item columns, respectively.
		Revise the row for Blowers with Carbon Steel material to reference V.B.1-a for the GALL Item and to change the Note to C.
		Revise the row for Bolting to reference V.E.1-b for the GALL Item, 3.2.1.A-10 for the Table 1 Item, and to add Note 5.
		Revise the rows for External Surfaces with Carbon Steel and Gray Cast Iron materials to reference V.E.1-b for the GALL Item and 3.2.1.A-10 for the Table 1 Item.
NMP-AI-025	T 3.2.1.A	The Discussion for Item 3.2.1.A-12 (p. 3.2-23) is changed to read as follows: "Consistent with NUREG-1801."
NMP-AI-026	T 3.2.2.A-3	Revise WASS Piping and Fittings (page 3.2-55) to credit the Water Chemistry Control Program for the environment "Treated Water or Steam, Temperature >212°F but < 482°F". This is in addition to the One-Time Inspection Program. Add Note 10 in the Notes Column.
NMP-AI-028	T 3.4.2.B-4	See the change identified for T 3.4.2.B-4 on p. 7 of this table.
NMP-AI-032	T 3.2.2.B-4	For the WASS Piping and Fittings (p. 3.2-89), add Note 10.
NMP-AI-035	T 3.2.2.B-4	In Table 3.2.2.B-4 (on p. 3.2-84), remove the blank line.
	T 3.2.2.B-5	In Table 3.2.2.B-5 (on p. 3.2-97), remove the blank line.
NMP-AI-037	T 3.3.1.A	Revise the last sentence of Table 1 Item 3.3.1.A-04 on p. 3.3-87 to read, "Further evaluation is also documented in Appendices B2.1.2 (Water Chemistry Control Program) and B2.1.20 (One-Time Inspection Program)."
NMP-AI-040	T 3.3.2.A-14	Revise Table 3.3.2.A-14 (page 3.3-155) to change the Gray Cast Iron External Surfaces item, so that the last 3 columns read, VII.I.1-b, 3.3.1.A-05, and F, respectively.
NMP-AI-042	T 3.2.2.A-1	For Gray Cast Iron Pumps with the Table 1 Item column entry of 3.3.1.A-15 (p. 3.2-38), the GALL and Table 1 Item column entries are removed the Notes column entry of "E" is being replaced with "H".
	T 3.3.1.A	The Discussion for Item 3.3.1.A-15 (p. 3.3-90) is changed to read as follows: "Consistent with NUREG-1801."

Audit Item	LRA Sect.	ALRA Change
NMP-AI-042 (cont'd.)	T 3.3.2.A-21	For Gray Cast Iron Pumps with the Table 1 Item column entry of 3.3.1.A-15 (p. 3.3-197), the GALL and Table 1 Item column entries are removed the Notes column entry of "E" is being replaced with "H".
	T 3.3.2.A-7	Revise the Notes for the Heat Exchanger line items referencing Table 1 Item 3.3.1.A-15 (2 places on p. 3.3-135) from "D" to "C"
		Revise the Notes for Pumps, Tanks, and Valves line item referencing Table 1 Item 3.3.1.A-15 (3 places on pp. 3.3-137, -138, and -139) from "B" to "A"
NMP-AI-043	T 3.5.2.A-4	Revise the Refueling Platform Table 1 Item (page 3.5-74) from 3.3.1.B-16 to 3.3.1.A-16.
NMP-AI-047	T 3.3.2.B-35	Revise to include the reference to Note B for Bolting on p. 3.3-300.
NMP-AI-048	Various	For the following Type 1 Table Items, the Discussion Column is revised to state that "The Bolting Integrity Program is consistent with NUREG-1801, with exceptions (see Appendix B2.1.36)": 3.1.1.A-26, 3.1.1.B-26, 3.2.1.A-18, 3.3.1.A-24, 3.3.1.B-24, and 3.4.1.A-08.
	Various	For the following Type 2 Tables, change the Note for the Bolting Integrity Program line items to Note B: 3.1.2.A-3, 3.1.2.A-4, 3.1.2.A-5, 3.1.2.B-3, 3.1.2.B-4, 3.1.2.B-5, 3.2.2.B-1, 3.2.2.B-2, 3.2.2.B-3, 3.2.2.B-4, 3.2.2.B-5, 3.2.2.B-6, 3.3.2.A-20, 3.3.2.A-24, 3.3.2.B-21, 3.3.2.B-24, 3.3.2.B-30, 3.4.2.A-2, 3.4.2.A-7, 3.4.2.B-1, 3.4.2.B-2, 3.4.2.B-3, 3.4.2.B-4, and 3.4.2.B-5.
NMP-AI-049	T 3.3.1.A	Revise the 1st paragraph of the Discussion column for Item 3.3.1.A-07 (p. 3.3-88) to read: "Consistent with the NUREG-1801 with exception for the Fuel Oil Chemistry Program."
	T 3.3.1.B	Revise the 1st paragraph of the Discussion column for Item 3.3.1.B-07 (p. 3.3-99) to read: "Consistent with the NUREG-1801 with exception for the Fuel Oil Chemistry Program."
	T 3.3.2.A-7	On p. 3.3-138, change the Note for Tanks crediting the Fuel Oil Chemistry Program for aging management from "A" to "B".
	T 3.3.2.B-28	On p. 3.3-279, change the Note for Tanks managed by the Fuel Oil Chemistry Program so that it references Note B instead of Note A.
NMP-AI-050	T 3.3.2.B-29	Revise Table 3.3.2.B-29 (page 3.3-282) for WASS Heat Exchangers in Raw Water to change the Table 1 Item from "3.3.1.B-15" to "3.3.1.B-17".
NMP-AI-051	T 3.3.2.B-37	Revise the line item for 'Piping and Fittings' (p. 3.3-304) to change the Environment column entry to "Air, Moisture or Wetting, temperature <140°F", to remove the GALL Item column entry, and to change the Notes Column entry from "E" to "G".
NMP-AI-052	T 3.3.1.B	The introductory sentence of the Discussion column for 3.3.1.B-19 (p. 3.3-103) is revised to read: "NMP2 does not have a Compressed Air Monitoring Program (see Appendix B2.1.14, Compressed Air Monitoring Program); therefore, the NMP2 Compressed Air System credits the following AMPs:"
NMP-AI-055	T 3.3.1.B	Revise the Discussion column of Item 3.3.1.B-23 (p. 3.3-106) to delete the reference to the PM Program.
	T 3.3.2.B-28	On p. 3.3-279, delete the line item for Loss of Material of CS Tanks in Air that is addressed by the PM program.

Audit Item	LRA Sect.	ALRA Change
NMP-AI-057	T 3.3.2.A-3	Revise Table 3.3.2.A-3 (page 3.3-117) to delete blank line.
	T 3.3.2.A-7	Revise Table 3.3.2.A-7 (pages 3.3-136 and 137) to delete blank lines.
	T 3.3.2.A-15	Revise Table 3.3.2.A-15 (page 3.3-166) to delete blank line.
	T 3.3.2.A-17	Revise Table 3.3.2.A-17 (page 3.3-174) to delete blank line.
	T 3.3.2.B-10	Revise Table 3.3.2.B-10 (page 3.3-226) to delete blank line.
NMP-AI-058	T 3.3.2.A-14	Revise Table 3.3.2.A-14 (page 3.3-158) to reference Note G instead of Note D for the Table 1 item for tanks of CS in demineralized untreated water.
NMP-AI-059	T 3.3.2.A-14	Revise Table 3.3.2.A-14 (page 3.3-160) to provide a Notes column entry of "G" for the 2 line items that had blanks in the Notes column.
NMP-AI-060	T 3.3.2.A-15	Revise Table 3.3.2.A-15 (3.3-166) to delete blank lines.
NMP-AI-061	T 3.3.2.A-15	Revise Table 3.3.2.A-15 (page 3.3-162) to correct the typo. External Surfaces material for CU Alloys and Aluminum Bronze should utilize > instead of ≤.
NMP-AI-062	T 3.3.2.A-17	Revise Table 3.3.2.A-17 (3.3-174) to delete blank lines.
NMP-AI-064	T 3.3.2.B-14	Revise Table 3.3.2.B-14 (page 3.3-239) to provide the Notes column entry of "H" for the Loss of Material of CS Piping and Fittings in wetted low-temp air line item that has no entry.
NMP-AI-066	T 3.3.2.B-20	Revise Table 3.3.2.B-20 (3.3-250) to delete blank lines.
NMP-AI-067	T 3.3.2.B-27	Revise Table 3.3.2.B-27 (3.3-276 and 277) to change the Table 1 Item entries for Tanks and Valves from 3.1.1.B-01 to 3.3.1.B-01.
NMP-AI-068	T 3.3.2.B-29	Revise Table 3.3.2.B-29 (page 3.3-281) to change the line item entries for Glass or Polymer in Air to "None" in the AERM, AMP, and Notes columns of the table.
NMP-AI-069	T 3.3.2.B-29	Revise Table 3.3.2.B-29 (page 3.3-282) to add the Notes column entry of "H" for cracking of WASS HXs (with IF of HT/PB) in treated water managed by the CCCW AMP.
NMP-AI-070	T 3.1.2.B-3	Revise T 3.1.2.B-3 for External Surfaces (p. 3.1-91) to change the Table 1 Item entry from 3.4.1.A-05 to 3.4.1.B-05.
	T 3.1.2.B-5	Revise T 3.1.2.B-5 for External Surfaces (p. 3.1-106) to change the Table 1 Item entry from 3.4.1.A-05 to 3.4.1.B-05.
NMP-AI-072	T 3.4.1.A	For Item 3.4.1.A-06 (p. 3.4-24), add the component "Air Ejectors" to the bulleted list of components.

Audit Item	LRA Sect.	ALRA Change
NMP-AI-073	T 3.4.2.A-4	Revise LRA Table 3.4.2.A-4 (p. 3.4-46) to add a new row for Flow Orifices with an IF column entry of "LBS"; Material column entry of "Carbon Steel, Low Alloy Steel (Yield Strength < 100 Ksi)"; Environment column entry of "Treated Water or Steam, temperature ≥482°F"; AERM column entry of "Loss of Material"; AMP column entry of "Flow-Accelerated Corrosion Program"; GALL Item column entry of "VIII.B2.1-b"; Table 1 Item column entry of "3.4.1.A-06"; and a Notes column entry of "A".
		Revise LRA Table 3.4.2.A-4 (p. 3.4-46) to add a new row for Flow Orifices with an IF column entry of "LBS"; Material column entry of "Carbon Steel, Low Alloy Steel (Yield Strength < 100 Ksi)"; Environment column entry of "Treated Water or Steam, temperature ≥482°F"; AERM column entry of "Loss of Material"; AMP column entry of "One-Time Inspection Program" and "Water Chemistry Control Program"; GALL Item column entry of "VIII.B2.1-a"; Table 1 Item column entry of "3.4.1.A-07"; and a Notes column entry of "B".
		Revise LRA Table 3.4.2.A-4 (p. 3.4-46) to add a new row for Piping and Fittings with an IF column entry of "LBS"; Material column entry of "Carbon Steel, Low Alloy Steel (Yield Strength < 100 Ksi)"; Environment column entry of "Treated Water or Steam, temperature ≥482°F"; AERM column entry of "Loss of Material"; AMP column entry of "Flow-Accelerated Corrosion Program"; GALL Item column entry of "VIII.B2.1-b"; Table 1 Item column entry of "3.4.1.A-06"; and a Notes column entry of "A".
		Revise LRA Table 3.4.2.A-4 (p. 3.4-46) to add a new row for Piping and Fittings with an IF column entry of "LBS"; Material column entry of "Carbon Steel, Low Alloy Steel (Yield Strength < 100 Ksi)"; Environment column entry of "Treated Water or Steam, temperature ≥482°F"; AERM column entry of "Loss of Material"; AMP column entry of "One-Time Inspection Program" and "Water Chemistry Control Program"; GALL Item column entry of "VIII.B2.1-a"; Table 1 Item column entry of "3.4.1.A-07"; and a Notes column entry of "B".
		Revise LRA Table 3.4.2.A-4 (p. 3.4-47) to add a new row for Valves with an IF column entry of "LBS"; Material column entry of "Carbon Steel, Low Alloy Steel (Yield Strength < 100 Ksi)"; Environment column entry of "Treated Water or Steam, temperature ≥482°F"; AERM column entry of "Loss of Material"; AMP column entry of "Flow-Accelerated Corrosion Program"; GALL Item column entry of "VIII.B2.2-a"; Table 1 Item column entry of "3.4.1.A-06"; and a Notes column entry of "A".
		Revise LRA Table 3.4.2.A-4 (p. 3.4-47) to add a new row for Valves with an IF column entry of "LBS"; Material column entry of "Carbon Steel, Low Alloy Steel (Yield Strength < 100 Ksi)"; Environment column entry of "Treated Water or Steam, temperature ≥482°F"; AERM column entry of "Loss of Material"; AMP column entry of "One-Time Inspection Program" and "Water Chemistry Control Program"; GALL Item column entry of "VIII.B2.2-b"; Table 1 Item column entry of "3.4.1.A-07"; and a Notes column entry of "B".
	T 3.4.2.B-4	Revise LRA Table 3.4.2.B-4 (p. 3.4-67) to add a new row for Piping and Fittings with an IF column entry of "LBS" and "PB"; Material column entry of "Carbon Steel, Low Alloy Steel (Yield Strength < 100 Ksi)"; Environment column entry of "Treated Water or Steam, temperature ≥482°F"; AERM column entry of "Loss of Material"; AMP column entry of "Flow-Accelerated Corrosion Program"; GALL Item column entry of "VIII.B2.1-b"; Table 1 Item column entry of "3.4.1.B-06"; and a Notes column entry of "A".

Audit Item	LRA Sect.	ALRA Change
NMP-AI-073 (cont'd.)	T 3.4.2.B-4 (cont'd.)	Revise LRA Table 3.4.2.B-4 (p. 3.4-67) to add a new row for Piping and Fittings with an IF column entry of "LBS" and "PB"; Material column entry of "Carbon Steel, Low Alloy Steel (Yield Strength < 100 Ksi)"; Environment column entry of "Treated Water or Steam, temperature ≥482°F"; AERM column entry of "Loss of Material"; AMP column entry of "One-Time Inspection Program" and "Water Chemistry Control Program"; GALL Item column entry of "VIII.B2.1-a"; Table 1 Item column entry of "3.4.1.B-07"; and a Notes column entry of "B".
		Revise LRA Table 3.4.2.B-4 (p. 3.4-67) to add a new row for Valves with an IF column entry of "LBS" and "PB"; Material column entry of "Carbon Steel, Low Alloy Steel (Yield Strength < 100 Ksi)"; Environment column entry of "Treated Water or Steam, temperature ≥482°F"; AERM column entry of "Loss of Material"; AMP column entry of "Flow-Accelerated Corrosion Program"; GALL Item column entry of "VIII.B2.2-a"; Table 1 Item of "3.4.1.B-06"; and a Notes column entry of "A".
		Revise LRA Table 3.4.2.B-4 (p. 3.4-67) to add a new row for Piping and Fittings with an IF column entry of "LBS" and "PB"; Material column entry of "Carbon Steel, Low Alloy Steel (Yield Strength < 100 Ksi)"; Environment column entry of "Treated Water or Steam, temperature ≥482°F"; AERM column entry of "Loss of Material"; AMP column entry of "One-Time Inspection Program" and "Water Chemistry Control Program"; GALL Item column entry of "VIII.B2.2-b"; Table 1 Item column entry of "3.4.1.B-07"; and a Notes column entry of "B".
NMP-AI-075	T 3.3.2.B-33	Revise Table 3.3.2.B-33 (p. 3.3-292) to change the Filters Table 1 Item column entry to "3.4.1.B-02" from "3.4.1.B-06".
NMP-AI-076	T 3.4.2.B-3	Revise Table 3.4.2.B-3 (page 3.4-63) to delete line items that are blank.
	T 3.5.2.B-3	Revise Table 3.5.2.B-3 (page 3.5-96) to delete line items that are blank.
	T 3.5.2.B-6	Revise Table 3.5.2.B-6 (page 3.5-107) to delete line items that are blank.
NMP-AI-077	T 3.4.2.A-2	Revise LRA Table 3.4.2.A-2 (p. 3.4-38) to add a new row for Flow Elements with an IF column entry of "LBS"; Material column entry of "Carbon Steel, Low Alloy Steel (Yield Strength < 100 Ksi)"; Environment column entry of "Treated Water or Steam, temperature ≥212°F, but <482°F"; AERM column entry of "Loss of Material"; AMP column entry of "Flow-Accelerated Corrosion Program"; GALL Item column entry of "VIII.C.1-a"; Table 1 Item column entry of "3.4.1.A-06"; and a Notes column entry of "C,3".
		Revise LRA Table 3.4.2.A-2 (p. 3.4-38) to add a new row for Flow Elements with an IF column entry of "LBS"; Material column entry of "Carbon Steel, Low Alloy Steel (Yield Strength < 100 Ksi)"; Environment column entry of "Treated Water or Steam, temperature ≥212°F, but <482°F"; AERM column entry of "Loss of Material"; AMP column entry of "One-Time Inspection Program" and "Water Chemistry Control Program"; GALL Item column entry of "VIII.C.1-b"; Table 1 Item column entry of "3.4.1.A-02"; and a Notes column entry of "D,3".

Audit Item	LRA Sect.	ALRA Change
NMP-AI-077 (cont'd.)	T 3.4.2.A-2 (cont'd.)	Revise LRA Table 3.4.2.A-2 (p. 3.4-40) to add a new row for Piping and Fittings with an IF column entry of "LBS"; Material column entry of "Carbon Steel, Low Alloy Steel (Yield Strength < 100 Ksi)"; Environment column entry of "Treated Water or Steam, temperature ≥212°F, but <482°F"; AERM column entry of "Loss of Material"; AMP column entry of "Flow-Accelerated Corrosion Program"; GALL Item column entry of "VIII.C.1-a"; Table 1 Item column entry of "3.4.1.A-06"; and a Notes column entry of "A".
		Revise LRA Table 3.4.2.A-2 (p. 3.4-40) to add a new row for Piping and Fittings with an IF column entry of "LBS"; Material column entry of "Carbon Steel, Low Alloy Steel (Yield Strength < 100 Ksi)"; Environment column entry of "Treated Water or Steam, temperature ≥212°F, but <482°F"; AERM column entry of "Loss of Material"; AMP column entry of "One-Time Inspection Program" and "Water Chemistry Control Program"; GALL Item column entry of "VIII.C.1-b"; Table 1 Item column entry of "3.4.1.A-02"; and a Notes column entry of "B".
		Revise LRA Table 3.4.2.A-2 (p. 3.4-41) to add a new row for Valves with an IF column entry of "LBS"; Material column entry of "Carbon Steel, Low Alloy Steel (Yield Strength < 100 Ksi)"; Environment column entry of "Treated Water or Steam, temperature ≥212°F, but <482°F"; AERM column entry of "Loss of Material"; AMP column entry of "Flow-Accelerated Corrosion Program"; GALL Item column entry of "VIII.C.2-a"; Table 1 Item column entry of "3.4.1.A-06"; and a Notes column entry of "A".
		Revise LRA Table 3.4.2.A-2 (p. 3.4-41) to add a new row for Valves with an IF column entry of "LBS"; Material column entry of "Carbon Steel, Low Alloy Steel (Yield Strength < 100 Ksi)"; Environment column entry of "Treated Water or Steam, temperature ≥212°F, but <482°F"; AERM column entry of "Loss of Material"; AMP column entry of "One-Time Inspection Program" and "Water Chemistry Control Program"; GALL Item column entry of "VIII.C.2-b"; Table 1 Item column entry of "3.4.1.A-02"; and a Notes column entry of "B".
NMP-AI-078	T 3.5.2.A-1	Revise Table 3.5.2.A-1 (page 3.5-64) for component type Equipment Hatches (including stabilizers) and AERM Loss of Leak Tightness to change the Table 1 Item column entry from "3.5.1.B-05" to "3.5.1.A-05".
NMP-AI-079	T 3.5.2.A-2	Revise Table 3.5.2.A-2 (page 3.5-71) to change the Notes column entry from "D" to "B" for Liners with the AERM of Cracking.
NMP-AI-080	T 3.5.2.A-1	Revise entries for Expansion/Grouted Anchors (Carbon and Low Alloy Steel) in Air with an AERM of Loss of Anchor Capacity (p. 3.5-64) as follows. Delete the row for anchors in an Environment of Concrete. Add a new line with a Component Type of Concrete Surrounding Anchor Bolts, Intended Function of SFS, Material of Concrete, Environment of Air, AERM of Loss of Anchor Capacity, AMP of Structures Monitoring Program, GALL Item of III.B1.1.4-a and III.B1.2.3-a, Table 1 Item of 3.5.1.A-29, and Note of A.
	T 3.5.2.A-2	Revise entries for Expansion/Grouted Anchors (Carbon and Low Alloy Steel) in Air with an AERM of Loss of Anchor Capacity (p. 3.5-70) as follows. Delete the row for anchors in an Environment of Concrete. Add a new line with a Component Type of Concrete Surrounding Anchor Bolts, Intended Function of SFS, Material of Concrete, Environment of Air, AERM of Loss of Anchor Capacity, AMP of Structures Monitoring Program, GALL Item of III.B1.2.3-a, Table 1 Item of 3.5.1.A-29, and Note of A.

Audit Item	LRA Sect.	ALRA Change
NMP-AI-080 (cont'd.)	T 3.5.2.A-6	Revise entries for Expansion/Grouted Anchors (Carbon and Low Alloy Steel) in Air with an AERM of Loss of Anchor Capacity (p. 3.5-76) as follows. Delete the row for anchors in an Environment of Concrete. Add a new line with a Component Type of Concrete Surrounding Anchor Bolts, Intended Function of NSS, Material of Concrete, Environment of Air, AERM of Loss of Anchor Capacity, AMP of Structures Monitoring Program, GALL Item of III.B1.2.3-a, Table 1 Item of 3.5.1.A-29, and Note of A.
	T 3.5.2.A-8	Revise entries for Expansion/Grouted Anchors (Carbon and Low Alloy Steel) in Air with an AERM of Loss of Anchor Capacity (p. 3.5-80) as follows. Delete the row for anchors in an Environment of Concrete. Add a new line with a Component Type of Concrete Surrounding Anchor Bolts, Intended Function of SFS and NSS, Material of Concrete, Environment of Air, AERM of Loss of Anchor Capacity, AMP of Structures Monitoring Program, GALL Item of III.B1.2.3-a, Table 1 Item of 3.5.1.A-29, and Note of A.
	T 3.5.2.A-9	Revise entries for Expansion/Grouted Anchors (Carbon and Low Alloy Steel) in Air with an AERM of Loss of Anchor Capacity (p. 3.5-83) as follows. Delete the row for anchors in an Environment of Concrete. Add a new line with a Component Type of Concrete Surrounding Anchor Bolts, Intended Function of SFS and NSS, Material of Concrete, Environment of Air, AERM of Loss of Anchor Capacity, AMP of Structures Monitoring Program, GALL Item of III.B1.2.3-a, Table 1 Item of 3.5.1.A-29, and Note of A.
NMP-AI-081	T 3.5.2.A-11	For the Expansion/Grouted Anchors (p. 3.5-85), revise the Table 1 Item column entry of "3.5.1.A-19" to "3.5.1.A-29". Revise entries for Expansion/Grouted Anchors (Carbon and Low Alloy Steel) in Air with an AERM of Loss of Anchor Capacity (p. 3.5-85) as follows. Delete the row for anchors in an Environment of Concrete. Add a new line with a Component Type of Concrete Surrounding Anchor Bolts, Intended Function of SFS, Material of Concrete, Environment of Air, AERM of Loss of Anchor Capacity, AMP of Structures Monitoring Program, GALL Item of III.B1.2.3-a, Table 1 Item of 3.5.1.A-29, and Note of A.
NMP-AI-083	T 3.5.2.B-2	Revise Table 3.5.2.B-2 (page 3.5-96) to reference "Note B" instead of "Note D" for liners with the aging effect cracking.
NMP-AI-084	T 3.5.2.B-2	Revise entries for Expansion/Grouted Anchors (Carbon and Low Alloy Steel) in Air with an AERM of Loss of Anchor Capacity (p. 3.5-94) as follows. Delete the row for anchors in an Environment of Concrete. Add a new line with a Component Type of Concrete Surrounding Anchor Bolts, Intended Function of SFS and NSS, Material of Concrete, Environment of Air, AERM of Loss of Anchor Capacity, AMP of Structures Monitoring Program, GALL Item of III.B1.2.3-a, Table 1 Item of 3.5.1.B-29, and a Note of A.
	T 3.5.2.B-4	Revise entries for Expansion/Grouted Anchors (Carbon and Low Alloy Steel) in Air with an AERM of Loss of Anchor Capacity (p. 3.5-100) as follows. Delete the row for anchors in an Environment of Concrete. Add a new line with a Component Type of Concrete Surrounding Anchor Bolts, Intended Function of SFS, Material of Concrete, Environment of Air, AERM of Loss of Anchor Capacity, AMP of Structures Monitoring Program, GALL Item of III.B1.2.3-a, Table 1 Item of 3.5.1.B-29, and a Note of A.

Audit Item	LRA Sect.	ALRA Change
NMP-AI-084 (cont'd.)	T 3.5.2.B-5	Revise entries for Expansion/Grouted Anchors (Carbon and Low Alloy Steel) in Air with an AERM of Loss of Anchor Capacity (p. 3.5-103) as follows. Delete the row for anchors in an Environment of Concrete. Add a new line with a Component Type of Concrete Surrounding Anchor Bolts, Intended Function of SFS, Material of Concrete, Environment of Air, AERM of Loss of Anchor Capacity, AMP of Structures Monitoring Program, GALL Item of III.B1.2.3-a, Table 1 Item of 3.5.1.B-29, and a Note of A.
	T 3.5.2.B-6	Revise entries for Expansion/Grouted Anchors (Carbon and Low Alloy Steel) in Air with an AERM of Loss of Anchor Capacity (p. 3.5-106) as follows. Delete the row for anchors in an Environment of Concrete. Add a new line with a Component Type of Concrete Surrounding Anchor Bolts, Intended Function of FP and NSS, Material of Concrete, Environment of Air, AERM of Loss of Anchor Capacity, AMP of Structures Monitoring Program, GALL Item of III.B1.2.3-a, Table 1 Item of 3.5.1.B-29, and a Note of A.
	T 3.5.2.B-8	Revise entries for Expansion/Grouted Anchors (Carbon and Low Alloy Steel) in Air with an AERM of Loss of Anchor Capacity (p. 3.5-111) as follows. Delete the row for anchors in an Environment of Concrete. Add a new line with a Component Type of Concrete Surrounding Anchor Bolts, Intended Function of NSS, Material of Concrete, Environment of Air, AERM of Loss of Anchor Capacity, AMP of Structures Monitoring Program, GALL Item of III.B1.2.3-a, Table 1 Item of 3.5.1.B-29, and a Note of A.
	T 3.5.2.B-10	Revise entries for Expansion/Grouted Anchors (Carbon and Low Alloy Steel) in Air with an AERM of Loss of Anchor Capacity (p. 3.5-114) as follows. Delete the row for anchors in an Environment of Concrete. Add a new line with a Component Type of Concrete Surrounding Anchor Bolts, Intended Function of NSS, Material of Concrete, Environment of Air, AERM of Loss of Anchor Capacity, AMP of Structures Monitoring Program, GALL Item of III.B1.2.3-a, Table 1 Item of 3.5.1.B-29, and a Note of A.
	T 3.5.2.B-11	Revise entries for Expansion/Grouted Anchors (Carbon and Low Alloy Steel) in Air with an AERM of Loss of Anchor Capacity (p. 3.5-117) as follows. Delete the row for anchors in an Environment of Concrete. Add a new line with a Component Type of Concrete Surrounding Anchor Bolts, Intended Function of SFS and NSS, Material of Concrete, Environment of Air, AERM of Loss of Anchor Capacity, AMP of Structures Monitoring Program, GALL Item of III.B1.2.3-a, Table 1 Item of 3.5.1.B-29, and a Note of A.
		Revise entries for Expansion/Grouted Anchors (Wrought Austenitic Stainless Steel) in Raw Water with an AERM of Loss of Anchor Capacity (p. 3.5-117) as follows. Delete the row for anchors in an Environment of Concrete. Add a new line with a Component Type of Concrete Surrounding Anchor Bolts, Intended Function of SFS, Material of Concrete, Environment of Raw Water, AERM of Loss of Anchor Capacity, AMP of Structures Monitoring Program, GALL Item of blank, Table 1 Item of blank, and a Note of G.
	T 3.5.2.B-13	Revise entries for Expansion/Grouted Anchors (Carbon and Low Alloy Steel) in Air with an AERM of Loss of Anchor Capacity (p. 3.5-124) as follows. Delete the row for anchors in an Environment of Concrete. Add a new line with a Component Type of Concrete Surrounding Anchor Bolts, Intended Function of SFS and NSS, Material of Concrete, Environment of Air, AERM of Loss of Anchor Capacity, AMP of Structures Monitoring Program, GALL Item of III.B1.2.3-a, Table 1 Item of 3.5.1.B-29, and a Note of A.

Audit Item	LRA Sect.	ALRA Change
NMP-AI-086	T 3.5.2.C-1	Revise entries for Expansion/Grouted Anchors (Carbon and Low Alloy Steel) in Air with an AERM of Loss of Anchor Capacity (p. 3.5-126) as follows. Delete the row for anchors in an Environment of Concrete. Add a new line with a Component Type of Concrete Surrounding Anchor Bolts, Intended Function of SFS and NSS, Material of Concrete, Environment of Air, AERM of Loss of Anchor Capacity, AMP of Structures Monitoring Program, GALL Item of III.B1.2.3-a, Table 1 Items of 3.5.1.A-29, 3.5.1.B-29, and a Note of A. The lines for aging management by the ASME Section XI IWF will remain as they are currently entered. For the Structures Monitoring Entry for the 1st line on P 3.5-127, the Table 1 Item should be 3.5.1.B-29 only since the line is for NMP2 only.
NMP-AI-087	T 3.5.2.A-2	Revise p. 3.5-71 Metal Siding in Air in the Material column to eliminate "Pure aluminum alloy" and replace it with "Aluminum" such that the material reads "Aluminum, and aluminum alloyed with manganese, magnesium, and magnesium plus silicone".
NMP-AI-089	3.6.2.1.4	Under the Aging Management Program Section (p. 3.6-6), the text "The following aging management program manages the aging effects for the Containment Electrical Penetrations:" is changed to read: "The following aging management program manages the aging effects for the Switchyard Components:"
NMP-AI-090	T 3.6.2.C-1	For Conductor Connectors (p. 3.6-9), change the Material column entry from "Various Metals" to "Copper and Aluminum".
NMP-AI-092	T 2.5.C.2-1	On p. 2.5-48, add the Component Types of "Bus Duct Enclosure" and "Seals and Gaskets", each with the Intended Function of "Shelter/Protection".
	3.6.2.1.2	To the Materials Section (p. 3.6-4), add "Polymer"; to the Aging Effects Requiring Management Section, add "Cracking" and "Hardening and Shrinkage"; and to the Aging Management Programs Section, add "Structures Monitoring Program".
	T 3.6.2.C-2	Revise Table 3.6.2.C-2 (p. 3.6-11) to include the component types of Bus Duct Enclosure and Seals and Gaskets with the IF column entry for both components SP; the Material column entries of "Aluminum" for the Bus Duct Enclosure and "Polymers" for the Seals and Gaskets; the Environment column entry of Air for both; the AERM and AMP column entries of "None" for the Aluminum Bus Duct Enclosure; the AERM column entries for the Seals and Gaskets of "Cracking" and "Hardening and Shrinkage" both managed by the AMP column entry of the "Structures Monitoring Program"; and the Notes column entry of "None" for the Bus Duct Enclosure and "H" for the Seals and Gaskets.
NMP-AI-098	A1.1.14	On p. A1-8, add the following to the first paragraph: "NMP also takes exception to the use of ISA-S7.0.01-1996 for air quality standards. The system air quality is monitored and maintained in compliance with the requirements of ANSI/ISA-S7.3-1975 which meets or exceeds the quality requirements for dew point, hydrocarbons, and particulate of Section 4.4 of EPRI TR-108147 and ISA-S7.0.01-1996."

Audit Item	LRA Sect.	ALRA Change
NMP-AI-098 (cont'd.)	B2.1.14	Add the following to the "Exceptions to NUREG-1801" discussion (p. B2-36): "NMP also takes exception to the use of ISA-S7.0.01-1996 for air quality standards. This is acceptable because the system air quality is monitored and maintained in compliance with the requirements of ANSI/ISA-S7.3-1975 which meets or exceeds the quality requirements for dew point, hydrocarbons, and particulate of Section 4.4 of EPRI TR-108147 and ISA-S7.0.01-1996." Add the following under Program Elements Affected for Exceptions to NUREG-1801: "Preventive Actions NMP takes exception to the use of ISA-S7.0.01-1996 for air quality standards. Air quality is monitored and maintained in compliance with the requirements of ANSI/ISA-S7.3-1975 which meets or exceeds the quality requirements for dew point, hydrocarbons, and particulate of Section 4.4 of EPRI TR-108147 and ISA-S7.0.01-1996."
NMP-AI-100	B2.1.14	Revise Section of B2.1.14 to read (p. B2-35): "The Compressed Air Monitoring Program is an existing program that will be consistent with NUREG-1801, Section XI.M24 (Compressed Air Monitoring) (Reference 2), with exceptions, after enhancements are incorporated. Add the following text after the "Exceptions to NUREG-1801" Section (p. B2-36): "Program Elements Effected Preventive Actions, Detection of Aging Effects NMP1 takes a limited exception related to maintenance suggestions in EPRI NP-7079 and EPRI TR-108147 that are not also endorsed by the manufacturer. NMP1 takes specific exception to the pre-service and in-service testing guidelines of ASME OM-S/G-1998, Part 17. NMPNS concludes that the maintenance practices reviewed and enhanced under the NMP1 response to GL 88-14 are adequate to manage aging without any additional testing."
NMP-AI-103	A1.1.6	Replace the existing paragraph (p. A1-3) with the following: "The Buried Piping and Tanks Inspection Program is a new program that will manage the aging effects on the external surfaces of carbon steel, low-alloy steel, and cast iron components (e.g. tanks, piping) that are buried in soil. Program activities will include visual inspections of external coatings and wrappings to detect damage and degradation. Prior to entering the period of extended operation, NMPNS will verify that there has been at least one opportunistic or focused inspection within the past ten years. Upon entering the period of extended operation, NMPNS will perform a focused inspection within ten years, unless an opportunistic inspection occurred within this ten year period. All credited inspections will be performed in areas with the highest likelihood of corrosion problems, and in areas with a history of corrosion problems. This program will be implemented prior to the period of extended operation."
	A 1.4	Item 24 (p. A1-40) is revised as follows: Replace the wording after the words 'requirement that' with "...before entry into the period of extended operation, if an opportunistic inspection has not occurred, NMPNS will excavate NMP1 degradation susceptible areas to perform focused inspections."

Audit Item	LRA Sect.	ALRA Change
NMP-AI-103 (cont'd.)	A2.1.7	Replace the existing paragraph (p. A2-3) with the following: "The Buried Piping and Tanks Inspection Program is a new program that will manage the aging effects on the external surfaces of carbon steel, low-alloy steel, and cast iron components (e.g. tanks, piping) that are buried in soil. Program activities will include visual inspections of external coatings and wrappings to detect damage and degradation. Prior to entering the period of extended operation, NMPNS will verify that there has been at least one opportunistic or focused inspection within the past ten years. Upon entering the period of extended operation, NMPNS will perform a focused inspection within ten years, unless an opportunistic inspection occurred within this ten year period. All credited inspections will be performed in areas with the highest likelihood of corrosion problems, and in areas with a history of corrosion problems. This program will be implemented prior to the period of extended operation."
	A2.4	Item 22 (p. A2-37) is revised as follows: Replace the wording after the words 'requirement that' with "...before entry into the period of extended operation, if an opportunistic inspection has not occurred, NMPNS will excavate NMP1 degradation susceptible areas to perform focused inspections."
	B2.1.22	Revise the Program Description of the Buried Piping and tanks Inspection Program (p. B2-51) as follows: "The Buried Piping and Tanks Inspection Program is a new program that will manage the aging effects on the external surfaces of carbon steel, low-alloy steel, and cast iron components (e.g. tanks, piping) that are buried in soil. Program activities will include visual inspections of external coatings and wrappings to detect damage and degradation. Prior to entering the period of extended operation, NMPNS will verify that there has been at least one opportunistic or focused inspection within the past ten years. Upon entering the period of extended operation, NMPNS will perform a focused inspection within ten years, unless an opportunistic inspection occurred within this ten year period. All credited inspections will be performed in areas with the highest likelihood of corrosion problems, and in areas with a history of corrosion problems."
NMP-AI-104	T 3.3.2.B-14	Revise Table T 3.3.2.B-14 (p 3.3-240) to add the "One Time Inspection Program" as an AMP for the Unit 2 Floor and Equipment Drain System Component Type 'Piping and Fittings'. Revise Table T 3.3.2.B-14 (p 3.3-243) to add the "One Time Inspection Program" as an AMP for the Unit 2 Floor and Equipment Drain System Component Type 'Valves'.
NMP-AI-108	A1.1.12	Replace existing enhancement on top guide inspections (p. A1-6) for NMP1 with the following: "The reinspection scope and frequency for the grid beam going forward will be based on BWRVIP-26A guidance for plant specific flaw analysis and crack growth assessment. The maximum reinspection interval for the grid beam will not exceed 10 years consistent with standard BWRVIP guidance for the core shroud. The reinspection scope will be equivalent to the UT baseline 2005 inspection scope. In addition, the reinspection scope will include an EVT-1 sample inspection of at least 2 locations with accessible indications within the initial 6 years of the 10 year interval. The intent of the EVT-1 is to monitor the known cracking to confirm flaw analysis crack growth assumptions."

Audit Item	LRA Sect.	ALRA Change
NMP-AI-108 (cont'd.)	A1.4	Replace Item 13, #4 (p. A1-37) with the following: "The reinspection scope and frequency for the grid beam going forward will be based on BWRVIP-26A guidance for plant specific flaw analysis and crack growth assessment. The maximum reinspection interval for the grid beam will not exceed 10 years consistent with standard BWRVIP guidance for the core shroud. The reinspection scope will be equivalent to the UT baseline 2005 inspection scope. In addition, the reinspection scope will include an EVT-1 sample inspection of at least 2 locations with accessible indications within the initial 6 years of the 10 year interval. The intent of the EVT-1 is to monitor the known cracking to confirm flaw analysis crack growth assumptions."
	A2.1.13	Replace existing enhancement on top guide inspections (p. A2-6) for NMP2 with the following: "NMP2 will perform inspections of the guide beams similar (in inspection methods, scope and frequency of inspection) to the inspections specified in BWRVIP-47, "BWR Lower Plenum Inspection and Flaw Evaluation Guidelines," for the control rod guide tube components. The extent of examination and its frequency will be based on a ten percent sample of the total population, which includes all grid beam and beam-to-crevice slots, being inspected within 12 years of entry into the period of extended operation with five percent of the population being inspected within the first six years. The sample locations selected for examination will be in areas that are exposed to the highest neutron fluence. The top guide grid beam reinspection requirements will depend on the inspection results; however, at a minimum, the NMP BWRVIP program will follow the same guidance for the subsequent 12 year interval as defined for the initial 12 year baseline."
	A2.4	Replace Item 13, #4 (p. A2-34) with the following: "NMP2 will perform inspections of the guide beams similar (in inspection methods, scope and frequency of inspection) to the inspections specified in BWRVIP-47, "BWR Lower Plenum Inspection and Flaw Evaluation Guidelines," for the control rod guide tube components. The extent of examination and its frequency will be based on a ten percent sample of the total population, which includes all grid beam and beam-to-crevice slots, being inspected within 12 years of entry into the period of extended operation with five percent of the population being inspected within the first six years. The sample locations selected for examination will be in areas that are exposed to the highest neutron fluence. The top guide grid beam reinspection requirements will depend on the inspection results; however, at a minimum, the NMP BWRVIP program will follow the same guidance for the subsequent 12 year interval as defined for the initial 12 year baseline."
	B2.1.8	The existing enhancement to the Detection of Aging Effects attribute to perform the top guide inspections (p. B2-25, 2nd bullet) is replaced with the following: "The reinspection scope and frequency for the NMP1 grid beam going forward will be based on BWRVIP-26A guidance for plant specific flaw analysis and crack growth assessment. The maximum reinspection interval for the grid beam will not exceed 10 years consistent with standard BWRVIP guidance for the core shroud. The reinspection scope will be equivalent to the UT baseline 2005 inspection scope. In addition, the reinspection scope will include an EVT-1 sample inspection of at least 2 locations with accessible indications within the initial 6 years of the 10 year interval. The intent of the EVT-1 is to monitor the known cracking to confirm flaw analysis crack growth assumptions.

Audit Item	LRA Sect.	ALRA Change
NMP-AI-108 (cont'd.)	B2.1.8 (cont'd)	NMP2 will perform inspections of the guide beams similar (in inspection methods, scope and frequency of inspection) to the inspections specified in BWRVIP-47, "BWR Lower Plenum Inspection and Flaw Evaluation Guidelines," for the control rod guide tube components. The extent of examination and its frequency will be based on a ten percent sample of the total population, which includes all grid beam and beam-to-crevice slots, being inspected within 12 years of entry into the period of extended operation with five percent of the population being inspected within the first six years. The sample locations selected for examination will be in areas that are exposed to the highest neutron fluence. The top guide grid beam reinspection requirements will depend on the inspection results; however, at a minimum, the NMP BWRVIP program will follow the same guidance for the subsequent 12 year interval as defined for the initial 12 year baseline."
NMP-AI-113	T 3.1.1.A	Revise the Discussion column for Item 3.1.1.A-9 (p. 3.1-24) to insert the following after the first sentence. "Additionally, the tubes were replaced in 1997 with upgraded material and aging stressors for cracking were eliminated with a keep fill modification."
NMP-AI-116	A1.1.22	Revise the enhancement (p. A1-13) to remove 'pre-lift.'
	A1.4	Item 17 (p. A1-38) - Revise the commitment to remove 'pre-lift.'
	A2.1.22	Revise the enhancement (p. A2-12) to remove 'pre-lift.'
	A2.4	Item 16 (p. A2-35) - Revise the commitment to remove 'pre-lift.'
	B2.1.13	Revise the enhancement to the Parameters Monitored/Inspected, Detection of Aging Effects (p. B2-35) to remove 'pre-lift.'
NMP-AI-121	T 3.0-1	Remove the 1st environment in this table (p. 3.0-6) - "Adverse localized environment caused by heat or radiation."
	3.6.2.1.1	Under the Environments Section (p. 3.6-3), change the adverse localized environment to "Adverse localized environment caused by heat, radiation, or moisture in the presence of oxygen".
	3.6.2.1.3	Under the Environments Section (p. 3.6-5), change the adverse localized environment to "Adverse localized environment caused by heat, radiation, or moisture in the presence of oxygen".
	T 3.6.2.C-1	For all of the environments that address an adverse localized environment (p. 3.6-9 and -10), replace them with "Adverse localized environment caused by heat, radiation, or moisture in the presence of oxygen."
	T 3.6.2.C-3	Same as T 3.6.2.C-1 changes (p. 3.6-12).
NMP-AI-125	A1.1.25	The last sentence of the enhancement (p. A1-14, 2nd bullet) is revised as follows: "The test frequency of these cables shall be determined based on engineering evaluation, but the test frequency shall be at least once every ten years."

Audit Item	LRA Sect.	ALRA Change
NMP-AI-125 (cont'd)	A1.4	Item 28 (p. A1-41)- The last sentence of the commitment is revised as follows: "The test frequency of these cables shall be determined based on engineering evaluation, but the test frequency shall be at least once every ten years."
	A2.1.25	The last sentence of the enhancement (p. A2-13, 2nd bullet) is revised as follows: "The test frequency of these cables shall be determined based on engineering evaluation, but the test frequency shall be at least once every ten years."
	A2.4	Item 26 (p. A2-37) - The last sentence of the commitment is revised as follows: "The test frequency of these cables shall be determined based on engineering evaluation, but the test frequency shall be at least once every ten years."
	B2.1.30	The last sentence of the enhancement to the Detection of Aging Effects attribute (p. B2-63, 1st bullet) is revised to read: "The test frequency of these cables shall be determined based on engineering evaluation, but the test frequency shall be at least once every ten years."
NMP-AI-127	T 3.1.1.A	For Item 3.1.1.A-22, revise the last sentence of the Discussion column to delete "...that have an aging effect/mechanism of loss of material due to general corrosion."
	T 3.1.1.B	For Item 3.1.1.B-22, revise the last sentence of the Discussion column to delete "...that have an aging effect/mechanism of loss of material due to general corrosion."
NMP-AI-128	A1.1.15	Include the following at the end of the existing paragraph (p. A1-9): "Important attributes for the reanalysis of an aging evaluation include analytical methods, data collection and reduction methods, underlying assumptions, acceptance criteria, and corrective actions (if acceptance criteria are not met)"
	A2.1.15	Include the following at the end of the existing paragraph (p. A2-8): "Important attributes for the reanalysis of an aging evaluation include analytical methods, data collection and reduction methods, underlying assumptions, acceptance criteria, and corrective actions (if acceptance criteria are not met)"
	B3.1	To the end of the Program Description (p. B3-1), attach the following: "Important attributes for the reanalysis of an aging evaluation include analytical methods, data collection and reduction methods, underlying assumptions, acceptance criteria, and corrective actions (if acceptance criteria are not met). These attributes are discussed below:

Audit Item	LRA Sect.	ALRA Change
NMP-AI-128 (cont'd.)	B3.1 (cont'd.)	EQ Component Reanalysis Attributes The reanalysis of an aging evaluation is normally performed to extend the qualification by reducing excess conservatism incorporated in the prior evaluation. Reanalysis of an aging evaluation to extend the qualification of a component is performed on a routine basis pursuant to 10 CFR 50.49(e) as part of an EQ program. While a component life limiting condition may be due to thermal, radiation, or cyclical aging, the vast majority of component aging limits are based on thermal conditions. Conservatism may exist in aging evaluation parameters, such as the assumed ambient temperature of the component, an unrealistically low activation energy, or in the application of a component (de-energized versus energized). The reanalysis of an aging evaluation is documented according to the station's quality assurance program requirements, which requires the verification of assumptions and conclusions. As already noted, important attributes of a reanalysis include analytical methods, data collection and reduction methods, underlying assumptions, acceptance criteria, and corrective actions (if acceptance criteria are not met). These attributes are discussed below. Analytical Methods: The analytical models used in the reanalysis of an aging evaluation are the same as those previously applied during the prior evaluation. The Arrhenius methodology is an acceptable thermal model for performing a thermal aging evaluation. The analytical method used for a radiation aging evaluation is to demonstrate qualification for the total integrated dose (that is, normal radiation dose for the projected installed life plus accident radiation dose). For license renewal, one acceptable method of establishing the 60-year normal radiation dose is to multiply the 40-year normal radiation dose by 1.5 (that is, 60 years/40 years). The result is added to the accident radiation dose to obtain the total integrated dose for the component. For cyclical aging, a similar approach may be used. Other models may be justified on a case-by case basis. Data Collection and Reduction Methods: Reducing excess conservatism in the component service conditions (for example, temperature, radiation, cycles) used in the prior aging evaluation is the chief method used for a reanalysis. Temperature data used in an aging evaluation is to be conservative and based on plant design temperatures or on actual plant temperature data. When used, plant temperature data can be obtained in several ways, including monitors used for technical specification compliance, other installed monitors, measurements made by plant operators during rounds, and temperature sensors on large motors (while the motor is not running). A representative number of temperature measurements are conservatively evaluated to establish the temperatures used in an aging evaluation. Plant temperature data may be used in an aging evaluation in different ways, such as (a) directly applying the plant temperature data in the evaluation, or (b) using the plant temperature data to April 2001 X E-3 NUREG-1801 demonstrate conservatism when using plant design temperatures for an evaluation. Any changes to material activation energy values as part of a reanalysis are to be justified on a plant-specific basis. Similar methods of reducing excess conservatism in the component service conditions used in prior aging evaluations can be used for radiation and cyclical aging. Underlying Assumptions: EQ component aging evaluations contain sufficient conservatism to account for most environmental changes occurring due to plant modifications and events. When unexpected adverse conditions are identified during operational or maintenance activities that affect the normal operating environment of a qualified component, the affected EQ component is evaluated and appropriate corrective actions are taken, which may include changes to the qualification bases and conclusions.

Audit Item	LRA Sect.	ALRA Change
NMP-AI-128 (cont'd.)	B3.1 (cont'd.)	Acceptance Criteria and Corrective Actions: The reanalysis of an aging evaluation could extend the qualification of the component. If the qualification cannot be extended by reanalysis, the component is to be refurbished, replaced, or re-qualified prior to exceeding the period for which the current qualification remains valid. A reanalysis is to be performed in a timely manner (that is, sufficient time is available to refurbish, replace, or re-qualify the component if the reanalysis is unsuccessful)."
NMP-AI-132	B2.1.23	Under NUREG-1801 Consistency (p. B2-52), correct the typo (change IWE to IWL).
NMP-AI-134	A1.1.2	In the first sentence of the second paragraph (p. A1-1), change the word 'enhanced' to 'improved'. At the end of the second paragraph, add "This improvement is not required for consistency with NUREG-1801 but is an activity NMP is adopting to ensure consistency with industry practice."
	A2.1.2	In the first sentence of the second paragraph (p, A2-1), change the word 'enhanced' to 'improved'. At the end of the second paragraph, add "This improvement is not required for consistency with NUREG-1801 but is an activity NMP is adopting to ensure consistency with industry practice."
	B2.1.23	Under the NUREG-1801 Consistency heading (p. B2-52), delete the phrase "...and requires enhancements to be consistent with others." at the end of the sentence. Under the Enhancements heading (p. B2-53), add a new first paragraph that states "None." Revise the new second paragraph to begin, "The following improvement is not required for consistency with NUREG-1801 but is an activity NMP is adopting to ensure consistence with industry practice." The last sentence of this paragraph is revised by replacing 'Enhancements' with "This improvement...".
NMP-AI-136	T 3.1.1.A	Revise the 2nd paragraph of line item 3.1.1.A-27 (p. 3.1-28) to read: "Program XI.M5 and Program XI.M9 are credited with managing cracking of the feedwater nozzle thermal sleeves due to SCC. Verification of the absence of nozzle cracking and thermal sleeve to flow shield weld cracking provides proof that the thermal sleeve intended function is not degraded."
	T 3.1.1.B	Revise the 2nd paragraph of line item 3.1.1.B-27 (p. 3.1-39) to read: "Program XI.M5 and Program XI.M9 are credited with managing cracking of the feedwater nozzle thermal sleeves due to SCC. Verification of the absence of nozzle cracking and thermal sleeve to flow shield weld cracking provides proof that the thermal sleeve intended function is not degraded."
	T 3.1.2.A-1	Add BWR Vessel Internals Program to the BWR Feedwater Nozzle Program and Water Chemistry Control Program for the AERM of Cracking for the Feedwater Nozzle Thermal Sleeves on page 3.1-45 (line item with Notes column entry of D, 6).
	T 3.1.2.B-1	Add BWR Vessel Internals Program to the BWR Feedwater Nozzle Program and Water Chemistry Control Program for the AERM of Cracking for the Feedwater Nozzle Thermal Sleeves on page 3.1-74 (line item with Notes column entry of D, 6). Also change the Notes column entry from "D, 6" to "E, 6".

Audit Item	LRA Sect.	ALRA Change
NMP-AI-136 (cont'd.)	A1.1.12	Add the following enhancement (p. A1-6): "An EVT-1 examination of the NMP1 feedwater sparger end bracket welds will be added to the BWR Vessel Internals Program. The inspection extent and frequency of the end bracket weld inspection will be the same as the ASME Section XI inspection of the feedwater sparger bracket vessel attachment welds."
	A1.4	Add new Item 38 to the table (p. A1-44): "An EVT-1 examination of the NMP1 feedwater sparger end bracket welds will be added to the BWR Vessel Internals Program. The inspection extent and frequency of the end bracket weld inspection will be the same as the ASME Section XI inspection of the feedwater sparger bracket vessel attachment welds."
	A2.1.13	Add the following enhancement (p. A2-6): "An EVT-1 examination of the NMP2 feedwater sparger end bracket welds will be added to the BWR Vessel Internals Program. The inspection extent and frequency of the end bracket weld inspection will be the same as the ASME Section XI inspection of the feedwater sparger bracket vessel attachment welds. If the final fabrication review of the NMP2 feedwater thermal sleeve concludes that the thermal sleeve hidden welds are not IGSCC susceptible, the NMP2 inspections will be discontinued.
	A2.4	Add new Item 37 to the table (p. A2-39): "An EVT-1 examination of the NMP2 feedwater sparger end bracket welds will be added to the BWR Vessel and Internals Program as a program enhancement. The inspection extent and frequency of the end bracket weld inspection will be the same as the ASME Section XI inspection of the feedwater sparger bracket vessel attachment welds. If the final fabrication review of the NMP2 feedwater thermal sleeve concludes that the thermal sleeve hidden welds are not IGSCC susceptible, the NMP2 inspections will be discontinued."
	B2.1.8	Add the following enhancement to the Detection of Aging Effects attribute (p. B2-25): "An EVT-1 examination of the NMP1 and NMP2 feedwater sparger end bracket welds will be added to the BWR Vessel and Internals Program as a program augmentation. The inspection extent and frequency of the end bracket weld inspection will be the same as the ASME Section XI inspection of the feedwater sparger bracket vessel attachment welds. If the final fabrication review of the NMP2 feedwater thermal sleeves concludes that the hidden welds are not IGSCC susceptible, the NMP2 inspections will be discontinued, as applicable."
NMP-AI-139	B2.1.34	Add the following to the "Corrective Action" program element (p. B3-73): "Further investigation and evaluation are performed when the acceptance criteria are not met. Corrective actions may include but are not limited to cleaning, drying, increased inspection frequency, replacement, or repair of the affected bus duct components. If an unacceptable condition or situation is identified, a determination is made as to whether the same condition or situation is applicable to other accessible or inaccessible bus duct / components."

Audit Item	LRA Sect.	ALRA Change
NMP-AI-141	A1.1.27	On p. A1-15, delete the torque test/torque checks, and include, as an alternative to thermography or measuring connection resistance of bolted connections, a visual inspection for the accessible bolted connections that are covered with heat shrink tape, sleeving, insulating boots, etc.
	A1.4	Revise Item 31 (p. A1-42) to read as follows: "Enhance the Non-Segregated Bus Inspection Program to expand visual inspections of the bus ducts, their supports and insulation systems. Also, new provisions will be made to perform, as an alternative to either thermography or periodic low range resistance checks of a statistical sample of the bus ducts accessible bolted connections, a visual inspection for the connections that are covered with heat shrink tape, sleeving, insulating boots, etc."
	A2.1.27	On p. A2-14, delete the torque test / torque checks, and include, as an alternative to thermography or measuring connection resistance of bolted connections, a visual inspection for the accessible bolted connections that are covered with heat shrink tape, sleeving, insulating boots, etc.
	A2.4	Revise Item 29 (p. A2-38) to read as follows: "Enhance the Non-Segregated Bus Inspection Program to expand visual inspections of the bus ducts, their supports and insulation systems. Also, new provisions will be made to perform, as an alternative to either thermography or periodic low range resistance checks of a statistical sample of the bus ducts accessible bolted connections, a visual inspection for the connections that are covered with heat shrink tape, sleeving, insulating boots, etc."
	B2.1.34	On pp. B2-71 to B2-74, delete the torque test / torque checks, and include, as an alternative to thermography or measuring connection resistance of bolted connections, a visual inspection for the accessible bolted connections that are covered with heat shrink tape, sleeving, insulating boots, etc.
NMP-AI-144	A1.1.34	Add a new Enhancement (p. A1-19) as follows: "The Masonry Wall Program (as managed by the Structures Monitoring Program) will be enhanced to provide guidance for inspecting NMP1 non-reinforced masonry walls that do not have bracing and are within scope of license renewal more frequently than the reinforced masonry walls."
	A1.4	Add new Item 39 (p. A1-43) as follows: "The Masonry Wall Program (as managed by the Structures Monitoring Program) will be enhanced to provide guidance for inspecting NMP1 non-reinforced masonry walls that do not have bracing and are within scope of license renewal more frequently than the reinforced masonry walls."
	B2.1.28	Add the following to Enhancements (p. B2-59): "The Masonry Wall Program (as managed by the Structures Monitoring Program) will be enhanced to provide guidance for inspecting NMP1 non-reinforced masonry walls that do not have bracing and are within scope of license renewal more frequently than the reinforced masonry walls."
NMP-AI-145	3.6.2.1.1	Add the "Non-EQ Inaccessible Medium Voltage Cables Program (NMP2 Only)" to the Aging Management Programs Section (p. 3.6-3).

Audit Item	LRA Sect.	ALRA Change
NMP-AI-145 (cont'd.)	T 3.6.1	Revise the 2nd paragraph of the Item 3.6.1-04 Discussion column entry (as it currently appears on p. 3.6-8 of the ALRA) to read as follows: "Consistent with NUREG-1801 for NMP2."
	T 3.6.2.C-1	On p. 3.6-9, add component type "Conductor insulation for inaccessible medium-voltage (2kV to 15kV) cables (e.g., installed in conduit or direct buried)(NMP2 Only)" with the IF column entry of "EC"; the Material column entry of "Various Organic Polymers"; the Environment column entry of "Adverse localized environment caused by exposure to heat, radiation, or moisture"; the AERM column entry of "Loss of Electrical Continuity and Loss of Insulation Resistance"; the AMP column entry of "Non-EQ Inaccessible Medium Voltage Cables Program"; the GALL Item column entry of "VI.A.1-c"; the Table 1 Item column entry of "3.6.1-04"; and the Notes column entry of "A, 1, 6".
	A2.1.26	Add the "NON-EQ Inaccessible Medium Voltage Cables Program" Program to the deleted section (p. A2-13). The program will be consistent with the GALL, with enhancements, as listed in Appendix A, A2.4.
	A2.4	Add new Item 38 as follows (p. A2-39): "Enhance the Inaccessible Medium-Voltage Cables not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program as follows: (1) Expand the scope of the existing procedures to provide for manhole inspections and water removal, (2) Develop a new testing procedure specific to those cables requiring aging management under this Program. The specific type of test performed will be a proven test for detecting deterioration of the insulation system due to wetting as described in EPRI TR-103834-P1-2, such as power factor, partial discharge, or other testing that is both state-of-the-art and consistent with the latest industry guidance at the time the test is performed. (3) establish requirement to test cables subject to aging management prior to, and every 10 years during, the period of extended operation, and (4) establish maintenance requirement to inspect and remove water, as necessary, from manholes serving cables subject to aging management. The inspection frequency will be based upon actual plant experience with water accumulation in the manhole, but in any event, will be at least once every two years. The first inspection will be completed prior to the period or extended operation."
	B1.5	On p. B1-5, add Item #25, "Non-EQ Inaccessible Medium Voltage Cables Program (NMP2 only) (Section B2.1.31) [Existing]"
	B2.0	For NUREG-1801 item XI.E3 (p. B2-5), change the Nine Mile Point Program column entry to: "Non-EQ Inaccessible Medium Voltage Cables Program (NMP2 only) (Section B2.1.31)"
	B2.1.31	Add "NON-EQ Inaccessible Medium Voltage Cables Program (NMP2 only)" to the deleted section (p. B2-64). The program will be consistent with the GALL, with enhancements, as listed in Appendix A, Section A2.4.
NMP-AI-151	A1.1.20	Add an exception to Appendix A of the ALRA for the Fuel Oil Chemistry Program. Exception is taken is to the GALL requirement for the addition of biocides, stabilizers and corrosion inhibitors to the diesel fuel oil storage tanks. Add to the existing enhancement for bottom thickness that measurements are performed by UT or other industry recognized methods.
	A1.4	Revise Item 21, Item 3 (p. A1-40) to add the following to the end of that item "...by UT or other industry recognized methods;".

Audit Item	LRA Sect.	ALRA Change
NMP-AI-151 (cont'd.)	A2.1.20	Add an exception to Appendix A of the ALRA for the Fuel Oil Chemistry Program. Exception is taken to the GALL requirement for the addition of biocides, stabilizers and corrosion inhibitors to the diesel fuel oil storage tanks. Add to the existing enhancement for bottom thickness that measurements are performed by UT or other industry recognized methods.
	A2.4	Revise Item 19, Item 3 (p. A2-36) to add the following to the end of that item "...by UT or other industry recognized methods;".
	B2.1.18	Add a new exception (p. B2-45) to the GALL requirement for the addition of biocides, stabilizers and corrosion inhibitors to the diesel fuel oil storage tanks. Add to the existing enhancement for bottom thickness that measurements are performed by UT or other industry recognized methods. The NUREG-1801 Consistency Section (p. B2-44) is changed to read: The Fuel Oil Chemistry Program is and existing program that takes exception to certain NUREG-1801, Section XI.M30 (Fuel Oil Chemistry) (Reference 2) evaluation elements and requires enhancements to be consistent with others."
NMP-AI-152	A1.1.34	Revise Section A1.1.34 by adding, "Unit 1 wooden structure" to the list of materials of construction in the first paragraph (p. A1-18).
	B2.1.28	Revise Section B2.1.28 by adding, "Unit 1 wooden structure" to the list of materials of construction in the first paragraph (p. B2-58).
NMP-AI-154	T 2.4.A.3-1	On p. 2.4-13, change the Component "Nitrogen Tank Protective Structure" to "Wooden Structure Over Nitrogen Equipment", add the new Component Type of "Treated Wood in Soil Above the GWT", and add the Intended Function for this Component Type of "Shelter/Protection".
	T 3.5.2.A-3	Add the Component Type of "Treated Wood in Soil Above the GWT" (p. 3.5-73) with the IF column entry of "SP", the Material column entry of "Wood"; the Environment column entry of "Soil, above the water table"; the AERM column entries of Loss of Material" and Loss of Material Properties"; and for each of these AERMs, the AMP column entry of "Structures Monitoring Program"; and the Notes column entry of "J". The GALL and Type 1 Table Items columns are blank.
NMP-AI-155	A2.1.40	The description is modified by adding the following at the end of the first paragraph (p. A2-22): "The Wooden Power Pole Inspection Program is implemented by the Structures Monitoring Program for managing specific aging effects."
	B2.1.40	The following is added to the Program Description (p. B2-89): "The Wooden Power Pole Inspection Program is implemented by the Structures Monitoring Program (B 2.1.28) for managing specific aging effects."
NMP-AI-161	T 2.3.3.A.9-1	Add the Component Type "Hose Reels" on p. 2.3-76 with the Intended Function of "Pressure Boundary".
	T 3.3.2.A-8	Add Hose Reels to Table 3.3.2.A-8 on p. 3.3-142 and provide the same aging management information shown for Hose Reels in Table 3.3.2.B-13 on p. 3.3-232.

Audit Item	LRA Sect.	ALRA Change
NMP-AI-161 (cont'd.)	T 3.5.1.A	For Item 3.5.1.A-29 on p. 3.5-52, add the following paragraph to the Discussion column entry: "The aging management of the component supports for hose reels is provided by the Fire Protection Program (see Appendix B2.1.16). "
	T 3.5.1.B	For Item 3.5.1.B-29 on p. 3.5-62, add the following paragraph to the Discussion column entry: "The aging management of the component supports for hose reels is provided by the Fire Protection Program (see Appendix B2.1.16). "
	3.5.2.C.1	Under the Aging Management Programs Section (p. 3.5-39), add the "Fire Protection Program".
	T 3.5.2.C-1	For the line item "Structural Steel (Carbon and Low Alloy Steel) in Air" on p. 3.5-128, add another AMP line item with the GALL Item, Table 1 Item, and Notes column entries that read "Fire Protection Program"; "III.B2.1-a"; "3.3.1.A-29, 3.3.1.B-29"; and "E, 8", respectively.
	Sect. 3.5 Plant Specific Notes	On p. 3.5-132, add the following new plant specific note: 13. This line item only applies to aging management of the supports for hose reels.
NMP-AI-165	A1.1.4	After the word 'inspected' (p. A1-2), delete "using the EPRI risk-informed methodology and implemented in accordance with ASME Code Case N-578-1 as approved by NRC plant specific Relief Request." and replace it with "using NRC approved Risk-Informed Methodology. Prior to the period of extended operation, the ISI Program will be updated to the latest Edition and Addenda of ASME Section XI as mandated by 10 CFR 50.55a and 10 CFR 54 requirements."
	A2.1.5	After the word 'inspected' (p. A2-2), delete "using the EPRI risk-informed methodology and implemented in accordance with ASME Code Case N-578-1 as approved by NRC plant specific Relief Request." and replace it with "using NRC approved Risk-Informed Methodology. Prior to the period of extended operation, the ISI Program will be updated to the latest Edition and Addenda of ASME Section XI as mandated by 10 CFR 50.55a and 10 CFR 54 requirements."
	B2.1.1	Under Program Description after the word 'inspected' (p. B2-6), delete "using the EPRI risk-informed methodology and implemented in accordance with ASME Code Case N-578-1 as approved by NRC plant specific Relief Request." and replace it with "using NRC approved Risk-Informed Methodology. Prior to the period of extended operation, the ISI Program will be updated to the latest Edition and Addenda of ASME Section XI as mandated by 10 CFR 50.55a and 10 CFR 54 requirements." Under Exceptions to NUREG-1801 after the word 'implement' (p. B2-6), delete "the EPRI risk-informed methodology and ASME Code Case N-578-1." and replace it with "NRC approved risk-informed methodology."
NMP-AI-166	T 3.5.2.A-6	For the Component Type 'Doors' (p. 3.5-76), the Notes column entry is changed from "C" to "D".
NMP-AI-167	T 3.5.2.A-7	For the Component Type 'Doors' (p. 3.5-78), the Notes column entry is changed from "C" to "D".
NMP-AI-168	T 3.5.2.A-9	For the Component Type 'Doors' (pp. 3.5-82 and 83) associated with the Fire Protection AMP, the Notes column entry is changed from "A" to "B".
NMP-AI-169	T 3.5.2.A-8	For the Component Type 'Doors' (p. 3.5-80), the Notes column entry is changed from "A" to "B".
NMP-AI-170	T 3.5.2.A-11	For the Component Type 'Doors' (p. 3.5-85), the Notes column entry is changed from "C" to "D".

Audit Item	LRA Sect.	ALRA Change
NMP-AI-173	A1.1.6	Replace the last 2 sentences (p. A1-3) with: "Before entry into the period of extended operation, if an opportunistic inspection has not occurred, NMPNS will excavate NMP1 degradation susceptible areas to perform focused inspections."
	A1.4	See NMP-AI-103.
	A2.1.7	Replace the last 2 sentences (p. A2-3) with: "Before entry into the period of extended operation, if an opportunistic inspection has not occurred, NMPNS will excavate NMP2 degradation susceptible areas to perform focused inspections."
	A2.4	See NMP-AI-103.
	B2.1.22	Under the Program Description (p. B2-51), Replace the last sentence with: "Before entry into the period of extended operation, if an opportunistic inspection has not occurred, NMPNS will excavate NMP1 or NMP2 degradation susceptible areas, as applicable, to perform focused inspections."
NMP-AI-175	T 3.1.1.A	Revise the last paragraph of line item 3.1.1.A-27 to read: "Program XI.M6 and Program XI.M9 are credited with managing cracking of the CRD Return Line Nozzle thermal sleeve due to SCC. Verification of the absence of nozzle cracking and thermal sleeve to flow shield weld cracking provides proof that the thermal sleeve intended function is not degraded."
	T 3.1.2.A-1	On p. 3.1-45 for the Thermal Sleeve line item with the Notes column entry of "E, 58", add the BWR Vessel Internals Program to the Aging Management Program column.
	A1.1.12	Add a new enhancement (p. A1-6) as follows: "NMP1 will perform an EVT-1 inspection of the thermal shield to flow shield weld starting in 2007 and proceeding at a 10 year frequency thereafter consistent with the ISI inspection interval."
	A1.4	Add new Item 40 (p. A1-43) as follows: "NMP1 will perform an EVT-1 inspection of the thermal shield to flow shield weld starting in 2007 and proceeding at a 10 year frequency thereafter consistent with the ISI inspection interval."
	B2.1.8	Add a new enhancement to the Detection of Aging Effects attribute (p. B3-24) as follows: "NMP1 will perform an EVT-1 inspection of the thermal shield to flow shield weld starting in 2007 and proceeding at a 10 year frequency thereafter consistent with the ISI inspection interval."
NMP-AI-183	T 3.6.2.C-2	Revise the Non-Segregated Bus Insulators line items for the Cement and Metal Materials (p. 3.6-11) to replace the AERM column entry of "None" with "Loss of Insulation Resistance"; the AMP column entry of "None" with "Non-Segregated Bus Inspection Program", and the Notes column entry of "None" with "J, 1".
NMP-AI-184	T 3.6.2.C-4	Revise the 3 High Voltage Insulators line items to replace the AERM column entry of "None" with "Loss of Insulation Resistance"; the AMP column entry of "None" with "Preventive Maintenance Program", and the Notes column entry of "None" with "J".

ATTACHMENT 3 to NMP1L 2005

The following table identifies those actions committed to by Nine Mile Point Nuclear Station, LLC in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments.

Revisions to existing Amended License Renewal Application (ALRA) commitments are shown with *italics* for additions and ~~strikethroughs~~ for deletions.

ALRA Section	ALRA Commitment #	Commitment Text	New or Revised	Due Date
A1.4	13	Enhance the BWR VIP to address the following: (1) BWRVIP-18 open item regarding the inspection of inaccessible welds for core spray system. As such, NMPNS will implement the resolution of this open item as documented in the BWRVIP response and reviewed and accepted by the NRC; (2) The inspection and evaluation guidelines for steam dryers are currently under development by the BWRVIP committee. Once these guidelines are documented, and reviewed and accepted by the NRC, the actions will be implemented in accordance with the BWRVIP program; (3) The baseline inspections recommended in BWRVIP-47 for the BWR lower plenum components will be incorporated into the appropriate program and implementing documents; and (4) *The reinspection scope and frequency for the grid beam going forward will be based on BWRVIP-26A guidance for plant specific flaw analysis and crack growth assessment. The maximum reinspection interval for the grid beam will not exceed 10 years consistent with standard BWRVIP guidance for the core shroud. The reinspection scope will be equivalent to the UT baseline 2005 inspection scope. In addition, the reinspection scope will include an EVT-1 sample inspection of at least 2 locations with accessible indications within the initial 6 years of the 10 year interval. The intent of the EVT-1 is to monitor the known cracking to confirm flaw analysis crack growth assumptions.* ~~A schedule for additional inspections of the top guide locations (using EVT-1 or techniques demonstrated to be appropriate in BWRVIP-03) will be incorporated into the appropriate program and implementing documents. A minimum of 10% of the locations will be inspected within 12 years of the beginning of the period of extended operation, with at least 5% of the inspections completed within 6 years.~~	Revised	Prior to Nine Mile Point Unit 1 (NMP1) Period of Extended Operation (PEO)
A1.4	17	Revise applicable procedures related to the Crane Inspection Program to add specific direction for performance of ~~pre-lift~~ corrosion inspections, with acceptance criteria, for certain hoist lifting assembly components.	Revised	Prior to NMP1 PEO

ALRA Section	ALRA Commitment #	Commitment Text	New or Revised	Due Date
A1.4	21	Enhance the Fuel Oil Chemistry Program to (1) Incorporate periodic tests for microbiological organisms (2) Provide guidelines for the appropriate use of biocides, corrosion inhibitors, and/or fuel stabilizers to maintain fuel oil quality (3) Add requirements to periodically inspect the interior surfaces of the emergency diesel fuel oil tanks and diesel fire pump fuel oil day tank for evidence of significant degradation, including a specific requirement that the tank bottom thickness be determined *by UT or other industry recognized methods* (4) Add a requirement for quarterly trending of particulate contamination analysis results and (5) Ensure acceptance criteria are specified in the implementing procedures for the applicable indications of potential degradation.	Revised	Prior to NMP1 PEO
A1.4	24	Develop and implement a Buried Piping and Tank Inspection Program which includes a requirement that *before entry into the period of extended operation, if an opportunistic inspection has not occurred, NMPNS will excavate NMP1 degradation susceptible areas to perform focused inspections*~~if an opportunistic inspection does not occur within the first ten years of extended operation, NMPNS will excavate a representative sample for the purpose of inspection~~.	Revised	Prior to NMP1 PEO
A1.4	28	Enhance the Non-EQ Electrical Cable and Connections Used in Instrumentation Circuit Program to (1) Implement reviews of calibration or surveillance data for indications of aging degradation affecting instrument circuit performance. The first reviews will be completed prior to the period of extended operation and every ten years thereafter; and (2) In cases where a calibration or surveillance program does not include the cabling system in the testing circuit, or as an alternative to the review of calibration results described above, provide requirements and procedures to perform cable testing to detect deterioration of the insulation system, such as insulation resistance tests or other testing judged to be effective in determining cable insulation condition. The first test will be completed prior to the period of extended operation. The test frequency of these cables shall be determined based on engineering evaluation, *but the test frequency shall be at least once every ten years.* ~~not to exceed every 10 years.~~	Revised	Prior to NMP1 PEO

ALRA Section	ALRA Commitment #	Commitment Text	New or Revised	Due Date
A1.4	31	Enhance the Non-Segregated Bus Inspection Program to expand visual inspections of the bus ducts, their supports and insulation systems. Also, new provisions will be made to perform, *as an alternative to* either *thermography or* periodic low range resistance checks of *a statistical sample of* the bus ducts ~~or torque checks of a statistical sample of~~ accessible bolted connections, *a visual inspection for the connections that are covered with heat shrink tape, sleeving, insulating boots, etc.*	Revised	Prior to NMP1 PEO
A1.4	38	An EVT-1 examination of the NMP1 feedwater sparger end bracket welds will be added to the BWR Vessel Internals Program. The inspection extent and frequency of the end bracket weld inspection will be the same as the ASME Section XI inspection of the feedwater sparger bracket vessel attachment welds.	New	Prior to NMP1 PEO
A1.4	39	The Masonry Wall Program (as managed by the Structures Monitoring Program) will be enhanced to provide guidance for inspecting NMP1 non-reinforced masonry walls that do not have bracing and are within scope of license renewal more frequently than the reinforced masonry walls.	New	Prior to NMP1 PEO
A1.4	40	NMP1 will perform an EVT-1 inspection of the thermal shield to flow shield weld starting in 2007 and proceeding at a 10 year frequency thereafter consistent with the ISI inspection interval.	New	Prior to NMP1 PEO

ALRA Section	ALRA Commitment #	Commitment Text	New or Revised	Due Date
A2.4	13	Enhance the BWR VIP to address (1) BWRVIP-18, 41 and 42 open items regarding the inspection of inaccessible welds for core spray, jet pump and low pressure coolant injection components, respectively. As such, NMPNS will implement the resolution of these open items as documented in the BWRVIP response and reviewed and accepted by the NRC; (2) The inspection and evaluation guidelines for steam dryers and access hole covers are currently under development by the BWRVIP committee. Once these guidelines are documented, and reviewed and accepted by the NRC, the actions will be implemented in accordance with the BWRVIP program; (3) The baseline inspections recommended in BWRVIP-47 for the BWR lower plenum components will be incorporated into the appropriate program and implementing documents; and (4) *The reinspection scope and frequency for the grid beam going forward will be based on BWRVIP-26A guidance for plant specific flaw analysis and crack growth assessment. The maximum reinspection interval for the grid beam will not exceed 10 years consistent with standard BWRVIP guidance for the core shroud. The reinspection scope will be equivalent to the UT baseline 2005 inspection scope. In addition, the reinspection scope will include an EVT-1 sample inspection of at least 2 locations with accessible indications within the initial 6 years of the 10 year interval. The intent of the EVT-1 is to monitor the known cracking to confirm flaw analysis crack growth assumptions.* ~~A schedule for additional inspections of the top guide locations (using EVT-1 or techniques demonstrated to be appropriate in BWRVIP-03) will be incorporated into the appropriate program and implementing documents. A minimum of 10% of the locations will be inspected within 12 years of the beginning of the period of extended operation, with at least 5% of the inspections completed within 6 years.~~	Revised	Prior to NMP2 PEO
A2.4	16	Revise applicable procedures related to the Crane Inspection Program to add specific direction for performance of ~~pre-lift~~ corrosion inspections, with acceptance criteria, for certain hoist lifting assembly components.	Revised	Prior to NMP2 PEO

ALRA Section	ALRA Commitment #	Commitment Text	New or Revised	Due Date
A2.4	19	Enhance the Fuel Oil Chemistry Program to (1) Incorporate periodic tests for microbiological organisms (2) Provide guidelines for the appropriate use of biocides, corrosion inhibitors, and/or fuel stabilizers to maintain fuel oil quality (3) Add requirements to periodically inspect the interior surfaces of the emergency diesel fuel oil tanks and diesel fire pump fuel oil day tank for evidence of significant degradation, including a specific requirement that the tank bottom thickness be determined *by UT or other industry recognized methods* (4) Add a requirement for quarterly trending of particulate contamination analysis results and (5) Ensure acceptance criteria are specified in the implementing procedures for the applicable indications of potential degradation.	Revised	Prior to NMP2 PEO
A2.4	22	Develop and implement a Buried Piping and Tank Inspection Program which includes a requirement that *before entry into the period of extended operation, if an opportunistic inspection has not occurred, NMPNS will excavate NMP2 degradation susceptible areas to perform focused inspections* ~~if an opportunistic inspection does not occur within the first ten years of extended operation, NMPNS will excavate a representative sample for the purpose of inspection~~.	Revised	Prior to NMP2 PEO
A2.4	28	Enhance the Non-EQ Electrical Cable and Connections Used in Instrumentation Circuit Program to (1) Implement reviews of calibration or surveillance data for indications of aging degradation affecting instrument circuit performance. The first reviews will be completed prior to the period of extended operation and every ten years thereafter; and (2) In cases where a calibration or surveillance program does not include the cabling system in the testing circuit, or as an alternative to the review of calibration results described above, provide requirements and procedures to perform cable testing to detect deterioration of the insulation system, such as insulation resistance tests or other testing judged to be effective in determining cable insulation condition. The first test will be completed prior to the period of extended operation. The test frequency of these cables shall be determined based on engineering evaluation, *but the test frequency shall be at least once every ten years.* ~~not to exceed every 10 years.~~	Revised	Prior to NMP2 PEO

ALRA Section	ALRA Commitment #	Commitment Text	New or Revised	Due Date
A2.4	29	Enhance the Non-Segregated Bus Inspection Program to expand visual inspections of the bus ducts, their supports and insulation systems. Also, new provisions will be made to perform, *as an alternative to* either *thermography or* periodic low range resistance checks of *a statistical sample of* the bus ducts ~~or torque checks of a statistical sample of~~ accessible bolted connections, *a visual inspection for the connections that are covered with heat shrink tape, sleeving, insulating boots, etc.*	Revised	Prior to NMP2 PEO
A2.4	37	An EVT-1 examination of the NMP2 feedwater sparger end bracket welds will be added to the BWR Vessel Internals Program. The inspection extent and frequency of the end bracket weld inspection will be the same as the ASME Section XI inspection of the feedwater sparger bracket vessel attachment welds.	New	Prior to NMP2 PEO
A2.4	38	Enhance the Inaccessible Medium-Voltage Cables not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program as follows: (1) Expand the scope of the existing procedures to provide for manhole inspections and water removal, (2) Develop a new testing procedure specific to those cables requiring aging management under this Program. The specific type of test performed will be a proven test for detecting deterioration of the insulation system due to wetting as described in EPRI TR-103834-P1-2, such as power factor, partial discharge, or other testing that is both state-of-the-art and consistent with the latest industry guidance at the time the test is performed. (3) establish requirement to test cables subject to aging management prior to, and every 10 years during, the period of extended operation, and (4) establish maintenance requirement to inspect and remove water, as necessary, from manholes serving cables subject to aging management. The inspection frequency will be based upon actual plant experience with water accumulation in the manhole, but in any event, will be at least once every two years. The first inspection will be completed prior to the period or extended operation.	New	Prior to NMP2 PEO