March 22, 2004

RAM Item No. - L-01 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS

Description of Issue - D-B failed to incorporate its analyses to address compliance with bulletins and generic letters into the UFSAR, and as such, the UFSAR is not in conformance with 10 CFR 50.71(e).

Restart Checklist Item: N/A

Description of Resolution - Per Meserve response to Lochbaum, D-B UFSAR needed to only be updated if the analyses requested by the NRC in response to the various bulletins or generic letters affected the existing design basis analysis or UFSAR component descriptions. Since this wasn't the case, an update was not required.

Reference Material: Meserve letter to Lochbaum dated December 20, 2002. In ADAMS as Accession No. ml022760202. Also see Dunlop memo to Lipa dated September 30, 2002, and attached to the PAL for the January 31, 2003, 0350 panel meeting.

RAM Item No. - L-02 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS-01a

Description of Issue - Will the DB FSAR be in compliance with 10 CFR 71(e) prior to restart?

Restart Checklist Item: N/A

Description of Resolution - Yes. Per Meserve response to Lochbaum, "The staff continues to review each licensee's FSAR updates [which would include D-B] for conformance with the requirements of 10 CFR 50.71(e), and we will address any plant specific issues as appropriate."

Reference Material: Meserve letter to Lochbaum dated December 20, 2002. In ADAMS as Accession No. ml022760202.

March 22, 2004

RAM Item No. - L-03 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS-01b

Description of Issue - What steps will the NRC staff take to ensure that its past decisions based on the incomplete, inaccurate D-B FSAR were proper?

Restart Checklist Item: N/A

Description of Resolution - If noncompliances are identified in UCS-01a, NRC will evaluate impact, if any. This can be inferred from last sentence in Meserve letter to Lochbaum dated December 20, 2002, which stated "The staff continues to review each licensee's FSAR updates [which would include D-B] for conformance with the requirements of 10 CFR 50.71(e), and we will address any plant specific issues as appropriate."

Reference Material: Meserve letter to Lochbaum dated December 20, 2002. In ADAMS as Accession No. ml022760202.

RAM Item No. - L-04 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS-02a

Description of Issue - Will the plant-specific evaluation of GSI-191 vulnerability recommended by the NRC staff to the ACRS in Sept. 2001 be completed for DB prior to restart?

Restart Checklist Item: 2.c.1

Description of Resolution - No. However, the licensee is reviewing issue (LER 2002-005 and Condition Reports 02-3859 and 02-5461). Per the statements made in Lochbaum's subsequent letter of February 10, 2003, this item is closed to Mr. Lochbaum's satisfaction as of February 10, 2003, based on modifications to be made to the sump and evaluations concerning sump clogging.

Reference Material - See Mr. Lochbaum's letter of February 10, 2003, which is in ADAMS as accession no. ml030490043.

March 22, 2004

RAM Item No. - L-05 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS-02b

Description of Issue - If L-4 is no, would the NRC staff be guilty of the same tolerance of degraded conditions that caused the current problem?

Restart Checklist Item: N/A

Description of Resolution - No. The issue is being properly corrected by the sump modifications being made to the facility.

Reference Material - None.

RAM Item No. - L-06 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS-02c

Description of Issue - Will all the boric acid deposited inside containment at D-B be found and removed prior to restart?

Restart Checklist Item: 2.c

Description of Resolution - For the most part, yes; however, It is not feasible to remove every particle of boric acid from containment. Extensive walkdowns have identified those components potentially affected by the presence of boric acid. NRC Inspection of condition of containment documents licensee completion of efforts to remove boric acid from inside containment. These results are documented in the two extent of condition inspection reports, IR 2002-009 issued September 13, 2002, and 2002-012 issued November 29, 2002.

Reference Material - Inspection Report 2002-009 is in ADAMS as accession no. ml022560237. Inspection Report 2002-012 is in ADAMS as accession no. ml023370132.

March 22, 2004

RAM Item No. - L-07 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS-02d

Description of Issue - If L-5 is no, what assurance exists that boric acid will not be transported to the sump and contribute to its failure?

Restart Checklist Item: 2.c

Description of Resolution - The concern that boric acid will clog up the sump post LOCA is unlikely because boric acid is soluble in water unlike paint chips and concrete dust and is therefore unlikely to plug sump strainers. Also, see NRC extent of condition inspection reports 2002-009 and 2002-012.

Reference Material - Inspection Report 2002-009 is in ADAMS as accession no. ml022560237. Inspection Report 2002-012 is in ADAMS as accession no. ml023370132.

March 22, 2004

RAM Item No. - L-08 **Closed: Y**

Date of Letter - 06/12/02

Author - Lochbaum (Union of Concerned Scientists) UCS-03.a

Description of Issue - Did FENOC perform a safety evaluation in accordance with 10 CFR 50.59 before power washing the Davis-Besse head to remove boric acid?

Description of Resolution - No. None of the criteria in 10 CFR 50.59 pertain to the power washing activity. The requirement in 10 CFR 50.59, "Changes, Tests, and Experiments," states, in part, the licensee shall obtain a license amendment prior to implementing a proposed change, test or experiment if the change, test, or experiment would:

- result in more than a minimal increase in the frequency of occurrence of a malfunction of an accident previously evaluated in the FSAR (as updated);
- result in more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety previously evaluated in the FSAR (as updated);
- result in more than a minimal increase in the consequences of an accident previously evaluated in the FSAR (as updated);
- result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the FSAR (as updated);
- create a possibility for an accident of a different type than any previously evaluated in the FSAR (as updated);
- create a possibility for a malfunction of an SSC important to safety with a different result than any previously evaluated in the FSAR (as updated);
- result in a design basis limit for a fission product barrier as described in the FSAR (as updated) being exceeded of altered; or
- result in a departure from a method of evaluation described in the FSAR (as updated) used in establishing the design bases or in the safety analysis.

Since the implementation of power washing as a method to remove boric acid from the reactor head does not impact any of the criteria stated above, a 50.59 analysis was not required.

Reference Material - None.

March 22, 2004

RAM Item No. - L-09 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS-03b

Description of Issue - If L-7 is no, what assurance exists against potential damage to safety equipment and components caused by maintenance activities?

Restart Checklist Item: 2.c

Description of Resolution - The inspection effort devoted to the SSDI and system health evaluated the status of safety equipment and components currently installed. For the long term future, the ROP includes inspection of the effectiveness of maintenance and implementation of 50.59, including an assessment of adequate screening for the need for safety evaluations. The SSDI and system health inspection reports were both issued by the same cover letter dated February 26, 2003, and are both in ADAMS with the same accession number.

Reference Material - Inspection Reports 2002-013 (System Health) and 2002-014 (SSDI) are in ADAMS as accession no. ml030630314. Also, the long term evaluation is addressed in ROP inspection modules IP 71111.12; 71111.13; and 71111.02 which are available on the NRC's public web site.

RAM Item No. - L-10 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS-04

Description of Issue - Will the CRDM mechanical flanges on the new head be replaced with seal welds prior to restart?

Restart Checklist Item: N/A

Description of Resolution - No Action. We are unaware of any licensee plans to seal weld CRDM flanges. This is a gasketed joint and would not lend itself to seal welding. Performance of improved gaskets has been acceptable.

Reference Material - None.

March 22, 2004

RAM Item No. - L-11 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS-05a

Description of Issue - How many of the top 20 managers in place at D-B on Feb. 16, 2002 have left FENOC?

Restart Checklist Item: N/A

Description of Resolution - No action. The NRC does not regulate staffing or organizational structure of licensee management.

Reference Material - None.

RAM Item No. - L-12 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS-05b

Description of Issue - Is the behavior of FE management at DB from 1996 through 2002 better or worse than Ms. VanCleave?

Restart Checklist Item: N/A

Description of Resolution - No action. The behavior of management is being evaluated via an ongoing OI investigation. If a willful violation is determined, the case will be evaluated on its own merits in accordance with NUREG-1600 “General Statement of Policy and Procedures for NRC Enforcement Actions”.

Reference Material - None.

March 22, 2004

RAM Item No. - L-13 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS-05c

Description of Issue - If VanCleave is better, will the NRC ban any FENOC managers and supervisors from working in the nuclear industry?

Restart Checklist Item: N/A

Description of Resolution - No action. The behavior of management is being evaluated via an ongoing OI investigation. If a willful violation is determined, the case will be evaluated on its own merits in accordance with NUREG-1600 "General Statement of Policy and Procedures for NRC Enforcement Actions".

Reference Material - None.

RAM Item No. - L-14 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS-05d

Description of Issue - If VanCleave is worse, return to L-11 and try again.

Restart Checklist Item: N/A

Description of Resolution - No action. The behavior of management is being evaluated via an ongoing OI investigation. If a willful violation is determined, the case will be evaluated on its own merits in accordance with NUREG-1600 "General Statement of Policy and Procedures for NRC Enforcement Actions".

Reference Material - None.

March 22, 2004

RAM Item No. - L-15 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS-05e

Description of Issue - VanCleave was banned from work at all NPPs. Does the NRC care that fired FENOC managers and supervisors work at other NPPs?

Restart Checklist Item: N/A

Description of Resolution - No action. The behavior of management is being evaluated via an ongoing OI investigation. If a willful violation is determined, the case will be evaluated on its own merits in accordance with NUREG-1600 "General Statement of Policy and Procedures for NRC Enforcement Actions". In addition, the NRC does not regulate staffing levels of licensees.

Reference Material - None.

RAM Item No. - L-16 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS-06a

Description of Issue - Will the results of the Congressional and OI investigations be publicly available prior to restart?

Restart Checklist Item: N/A

Description of Resolution - No action. Results will be made available in accordance with NRC policy of release of OI investigations. However, there is no guarantee that this will occur prior to restart. Results of Congressional investigations are released by Congress and not the NRC.

Reference Material - None.

March 22, 2004

RAM Item No. - L-17 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS-06b

Description of Issue - If L-15 is no, how can near-by residents be assured that they were not placed in undue risk by management and workers at D-B?

Restart Checklist Item: N/A

Description of Resolution - No action. Results will be made publically available in accordance with NRC policy on release of OI investigations results. If a willful violation is determined, the case will be evaluated on its own merits in accordance with NUREG-1600 "General Statement of Policy and Procedures for NRC Enforcement Actions".

Reference Material - None.

RAM Item No. - L-18 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS-07

Description of Issue - Will the acceptance of the interim head be conditional on commitment from FENOC to install the permanent head during outage when the steam generators are replaced?

Restart Checklist Item: N/A

Description of Resolution - Provided the Midland head is properly maintained and inspected, there is no requirement to replace this head. Inspection Report 2002-007, which was issued on November 29, 2002, documented acceptability of replacement head.

Reference Material - Inspection Report 2002-007, dated November 29, 2002, is in ADAMS as accession no. ml023370100.

March 22, 2004

RAM Item No. - L-19 **Closed: Y**

Date of Letter - 06/12/02

Author - UCS-08

Description of Issue - What was the boric acid corrosion problem at a foreign reactor that caused the NRC to warn some plant owners in 1972?

Restart Checklist Item: N/A

Description of Resolution - No action. The facility in question was Beznau in Switzerland, which experienced boric acid corrosion.

Reference Material - AEC letter dated 1/18/72 to Yankee Atomic.

RAM Item No. - L-20 **Closed: Y**

Date of Letter - 06/19/02

Author - UCS

Description of Issue - Review of D-B UFSAR did not reveal results of safety analysis of several NRC GIs. Licensee not in compliance with 10 CFR 50.71(e).

Restart Checklist Item: N/A

Description of Resolution - Per Meserve response to Lochbaum, D-B UFSAR needed to only be updated if the analyses requested by the NRC in response to the various bulletins or generic letters affected the existing design basis analysis or UFSAR component descriptions. Since this wasn't the case, an update was not required.

Reference Material: Meserve letter to Lochbaum dated December 20, 2002. In ADAMS as Accession No. ml022760202. Also see Dunlop memo to Lipa dated September 30, 2002.

March 22, 2004

RAM Item No. - L-21 **Closed: Y**

Date of Letter - 06/19/02

Author - UCS

Description of Issue - The LLTF should examine the appropriateness of using short-duration risk assessments in regulatory space.

Restart Checklist Item: N/A

Description of Resolution - The LLTF performed such an examination and developed LLTF Action 3.3.7(3) on assessing risk in NRC decision-making process based on its review.

Reference Material - Both the LLTF report, dated September 30,2002, and the SMRT Memo from Paperiello to Travers dated November 26, 2002, are available at the Davis-Besse news and correspondence page of the NRC website.

RAM Item No. - L-22 **Closed: Y**

Date of Letter - 06/19/02

Author - UCS

Description of Issue - The SDP process should not classify the D-B event as Green.

Restart Checklist Item: N/A

Description of Resolution - By letter dated February 25, 2003, the SDP process results were provided to the licensee. The issue was classified as a preliminary “red” finding.

Reference Material - Dyer to Myers letter dated February 25, 2003, which is ADAMS accession no. ml030560426. The SDP basis is attached and included in the ADAMS document.

March 22, 2004

RAM Item No. - L-23 **Closed: Y**

Date of Letter - 07/03/02

Author - UCS

Description of Issue - Why did the NRC "accept" the boric acid corrosion program at D-B after determining that over 20% of the program was "unsatisfactory"?

Description of Resolution - The NRC staff and a consultant audited Davis-Besse in September 1989, with respect to the licensee's response to GL 88-05, "Boric Acid Corrosion of Carbon Steel Reactor Pressure Boundary Components in PWR Plants." By letter dated February 8, 1990, the NRC issued its evaluation, which contained the following statement; "The purpose of this letter is to advise you that our audit of your boric acid corrosion prevention program has resulted in an acceptable finding and we now consider this issue to be closed."

The consultant's report, NUREG/CR-5576, "Survey of Boric Acid Corrosion of Carbon Steel Components in Nuclear Plants," was published in June 1990. In that report, Davis-Besse, although unnamed, received a rating of 2 (unsatisfactory, with recommended improvement actions) in 2 of the 9 categories rated. The Executive Summary of NUREG/CR-5576 contains the following statement, "All of the audited licensees satisfactorily addressed the four specified requirements of Generic Letter 88-05."

In NUREG/CR-5576, the lowest rating of the rating scale was 1 (noncompliance). So although, Davis-Besse received two ratings of 2 (unsatisfactory, with recommended improvement actions), there were no ratings of 1 (noncompliance). Overall the report author concluded that the licensee's program was adequate, and that receiving a 2 rating in one of the four GL 88-05 items did not lead the report author to automatically conclude that a licensee was unsatisfactory with regard to addressing the item.

Based on the above, the NRC's letter of February 8, 1990, and the consultant's report were consistent in their conclusions that the licensee had satisfactorily addressed GL 88-05.

Reference Material - NUREG/CR-5576, "Survey of Boric Acid Corrosion of Carbon Steel Components in Nuclear Plants,"; NRC's letter of February 8, 1990.

March 22, 2004

RAM Item No. - L-24 **Closed: Y**

Date of Letter - 07/03/02

Author - UCS-09b

Description of Issue - Will "acceptable" and "unsatisfactory" stop being synonymous to the NRC?

Restart Checklist Item: N/A

Description of Resolution -No action. The NRC does not consider "acceptable" and "unsatisfactory" to be synonymous.

Reference Material - None.

RAM Item No. - L-25 **Closed: Y**

Date of Letter - 07/03/02

Author -UCS-10a

Description of Issue - How many times must people around Davis Bess be subjected to American Roulette?

Restart Checklist Item: N/A

Description of Resolution - No action. The goal of the agency is to ensure safe operations such that reasonable assurance of safety exists at all times.

Reference Material - None.

March 22, 2004

RAM Item No. - L-26 **Closed: Y**

Date of Letter - 07/03/02

Author - UCS-10b

Description of Issue - What tangible steps will NRC take to prevent chronic and systemic management problems from causing another very, very serious near-miss - or worse - at D-B?

Restart Checklist Item: N/A

Description of Resolution - No action. The basis for authorizing restart will be documented via closure of restart checklist items via the Manual Chapter 0350 process. Also, the NRC will implement almost all of the LLTF recommendations, as stated by the Commission during the January 14, 2003, Commission meeting.

Reference Material - None.

RAM Item No. - L-27 **Closed: Y**

Date of Letter - 07/03/02

Author - UCS-11a

Description of Issue - Will the NRC allow the public to look at the 1993 D-B risk assessment?

Restart Checklist Item: N/A

Description of Resolution - This information is being withheld as a result of the events of September 11, 2001, in accordance with COMSECY-02-0015 "Withholding Sensitive Homeland Security Information From the Public." This was described to UCS via a letter from Marsh to Lochbaum dated September 30, 2002.

Reference Material - COMSECY-02-0015 "Withholding Sensitive Homeland Security Information From the Public" is being used as guidance, and ADAMS Document Accession No. ml022610666 dated September 30, 2002.

March 22, 2004

RAM Item No. - L-28 **Closed: Y**

Date of Letter - 07/03/02

Author - UCS-11b

Description of Issue - Why did NRC use 1993 D-B risk assessment to develop SDP worksheets when the updated 1999 plant safety assessment was readily available?

Restart Checklist Item: N/A

Description of Resolution - The SDP notebook was benchmarked against the current PRA model in July 2002. Revision 1 of the SDP notebook will be issued in the near future. Public availability will be assessed in accordance with the guidance described above. This was described to UCS via a letter from Marsh to Lochbaum dated September 30, 2002.

Reference Material - Marsh letter to Lochbaum dated September 30, 2002, which is ADAMS Document Accession No. ml022610666.

RAM Item No. - L-29 **Closed: Y**

Date of Letter - 07/03/02

Author - UCS-11c

Description of Issue - If the D-B risk assessment remains “secret” but is the basis for the SDP call, why should the public believe any NRC pronouncement on safety significance derived, in large part, on "secret" information?

Restart Checklist Item: N/A

Description of Resolution - This information is being withheld as a result of the events of September 11, 2001, in accordance with COMSECY-02-0015 “Withholding Sensitive Homeland Security Information From the Public.” This was described to UCS via a letter from Marsh to Lochbaum dated September 30, 2002.

Reference Material - Marsh letter to Lochbaum dated September 30, 2002, which is ADAMS Document Accession No. ml022610666, and COMSECY-02-0015 “Withholding Sensitive Homeland Security Information From the Public”.

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RAM Item No. - L-30 **Closed: Y**

Date of Letter - 07/03/02

Author - UCS-11d

Description of Issue - If the D-B risk assessment remains "secret," will the NRC retain the 0350 Panel indefinitely to compensate for the public being unfairly excluded from access to key information?

Restart Checklist Item: N/A

Description of Resolution - No action. When the 0350 Panel decides that Davis Besse can be returned to the ROP, the Panel will be dissolved.

Reference Material - MC 0350, which is available on the NRC's public web page.

RAM Item No. - L-31 **Closed: Y**

Date of Letter - 07/03/02

Author - UCS-11e

Description of Issue - Will the NRC require the D-B risk assessment to incorporate the real risk from reactor vessel failure before restart?

Restart Checklist Item: N/A

Description of Resolution - The impact of degraded condition of RPV in determining risk assessment was addressed as part of the significance determination process (SDP). The SERP package, which was attached to the preliminary RED finding letter sent to the licensee on February 25, 2003, addresses the methodology for determining reactor vessel failure. The current PRA identifies risk of RPV failure as 4.5E-7. The SERP notes that as a result of the licensee's failure to properly implement its corrective action and boric acid control programs, the risk of core damage was increased by greater than 1E-4/Reactor year.

Reference Material - Davis Besse PRA, October 1999; and ADAMS Accession No. ml030560426 containing the SDP results and preliminary red finding, and ml031490778, documenting the final risk significance and finding results.

March 22, 2004

RAM Item No. - L-32 **Closed: Y**

Date of Letter - 07/03/02

Author - UCS-11f

Description of Issue - Will NRC revamp ROP to enable its inspectors to audit areas non-conservatively omitted from the plant-specific risk assessments?

Restart Checklist Item: N/A

Description of Resolution - No action. The ROP is risk informed. Inspectors are not restricted from inspecting areas found to be risk significant per the inspection guidance in the ROP.

Reference Material - See IMC 0305 which is available on the NRC's public web site.

RAM Item No. - L-33 **Closed: Y**

Date of Letter - 07/03/02

Author - UCS-12a

Description of Issue - Did FENOC violate ALARA by repeatedly deferring MOD 94-0025?

Restart Checklist Item: N/A

Description of Resolution - No. All exposures were significantly under the 5 Rem guidance for an ALARA finding.

Reference Material - MC 609, Appendix C, which is available at the NRC's public web page.

March 22, 2004

RAM Item No. - L-34 **Closed: Y**

Date of Letter - 07/03/02

Author - UCS-12b

Description of Issue - Does Region III have a different approach to worker radiation safety than Region IV, given the fact that Callaway was cited for the same poor radiation control practices that Region III let D-B get away with?

Restart Checklist Item: N/A

Description of Resolution - No action. The basis of the issue is false. Davis-Besse was issued two white findings and one green finding in the RP arena for deficiencies involving the radiation safety practices at the facility. These are documented in Inspection Report Nos. 2002-006 and 2002-016, both issued on January 7, 2003.

Reference Material: Inspection reports 2002-006 and 2002-016, both of which can be found in ADAMS at accession no. ml030070606.

March 22, 2004

RAM Item No. - L-35 **Closed: Y**

Date of Letter - 07/03/02

Author - UCS-13

Description of Issue - "What tangible actions has FENOC taken to back up its rosy proclamations and assertions about 'questioning attitude and conservative decision-making'?"

Restart Checklist Item: 1.b & 4.a

Description of Resolution - The licensee presented its actions during the January 30, 2003, management meeting in Region III. The transcript of that meeting can be found at ADAMS Accession No. ml030580657. In addition, the licensee has prepared its own approach to assessing and improving safety culture, since it was a key contributor to the vessel head degradation. This approach is detailed in their Return to Service Plan containing several component "building blocks" to address the various contributing causes that led to the degradation of the reactor vessel head. One of the "building blocks" is the "Management and Human Performance Improvement Plan," which included actions to achieve improvement in organizational performance. Those actions included establishing a new senior management team for Davis-Besse, conducting leadership training with a focus on safety, implementing management observation and management monitoring programs, conducting periodic safety conscious work environment surveys, and establishing and holding staff accountable to new standards of excellence. The licensee also developed an internal methodology to assess the site's safety culture, partly using attributes documented in INSAG-4 and INSAG-15, *Key Practical Issues in Strengthening Safety Culture* (2002). The methodology evaluates three major areas: (1) policy or corporate commitment to safety, (2) plant management commitment to safety, and (3) individual commitment to safety. Each major area is broken down into multiple attributes which are individually assessed against specific standards. Those assessments are utilized to develop an overall rating for the major areas.

Reference Material - Inspection Reports 50-346/02-15 and 50-346/02-18.

March 22, 2004

RAM Item No. - L-36 **Closed: Y**

Date of Letter - 07/03/02

Author - Lochbaum - UCS-14a

Description of Issue - Will the NRC require FENOC to conform with UFSAR 5.2.3.2 or revise 5.2.3.2 to match what the company does before restart?

Restart Checklist Item: 3.d

Description of Resolution - The NRC does not intend to take any actions with regards to Davis-Besse that are different with those required of the rest of the nuclear industry. Section 5.2.3.2 of the UFSAR states the following:

> "All materials exposed to the reactor coolant exhibit corrosion resistance for the expected service conditions. The materials used, as given in Table 5.2-10, are 304SS, 316SS, Inconel (Ni-Cr-Fe), or weld deposits with corrosion resistance equivalent to or better than the other materials listed. These materials were chosen because they are compatible with the reactor coolant. The RCPB contains no furnace-sensitized, wrought austenitic stainless steel. Sensitized stainless steel weld overlay (cladding) is permitted.
>
> The RC System is a controlled addition, closed loop which is not conducive to contaminant introduction. In addition, purification systems are provided to maintain the contaminant levels within the limits specified in Table 9.3-4 and Table 9.3-5. The materials in the RC System are not adversely affected by expected contaminants or radiolytic products."

The NRC staff recognizes that primary water stress corrosion cracking has occurred throughout the nuclear industry to reactor head nozzles made of Inconel 600, and this is the reason that Bulletins 2002-01 and 2002-02 were issued. While we expect licensees to take appropriate actions to address the potential for cracking of nozzles, including those made up of Inconel, we are not requiring licensees to amend their UFSAR to remove reference to Inconel as a compound that is corrosion resistant.

Reference Material - UFSAR Section 5.2.3.2, which is restated above.

March 22, 2004

RAM Item No. - L-37 **Closed: Y**

Date of Letter - 07/03/02

Author - Lochbaum - UCS-14b

Description of Issue - If the NRC truly believes that FENOC lacks a regulatory commitment to clean the Rx vessel head of highly corrosive material that can cause catastrophic failure, shouldn't the agency undertake getting that regulatory commitment?

Restart Checklist Item: 3.d

Description of Resolution - The NRC does not believe that FENOC lacks a regulatory commitment to clean the reactor vessel head of highly corrosive material that can cause catastrophic failure. Rather, 10 CFR Part 50, Appendix B, Criterion XVI provides a regulatory requirement for the licensee to institute corrective actions to prevent recurrence and to promptly correct significant conditions adverse to quality. Both the failure to address the leakage of reactor coolant through the pressure boundary and flange and the resultant failure to remove residual boric acid from the reactor vessel head are examples of the apparent violations identified in the NRC's red finding regarding the reactor vessel head degradation.

Reference Material - Preliminary red finding letter (ADAMS Accession No. ml030560426) and final red determination (Inspection Report 03-16 - ADAMS Accession No. ml031490778) issued on May 29, 2003.

March 22, 2004

RAM Item No. - L-38 **Closed: Y**

Date of Letter - 07/15/02

Author - UCS-15

Description of Issue - Could operators execute emergency procedures with containment radiation monitors having a mean-time-between-failures of 24 hours?

Restart Checklist Item: N/A

Description of Resolution - There are no emergency procedures which utilize the containment radiation monitors as a primary indication. Rather, the monitors used for post-accident response are direct reading gamma radiation dome monitors, which are not affected by particulates in containment. Further, there are no control board alarms associated with the containment radiation monitors, only a computer alarm. This computer alarm is used for information only. If the alarm actuates, the operators verify no low flow conditions exist, then determine which channel is in alarm. Subsequent actions, which are non-emergency, are determined by which channel (i.e., particulate, iodine or noble gases) is in alarm.

Reference Material - None.

RAM Item No. - L-39 **Closed: Y**

Date of Letter - 07/15/02

Author - UCS-16

Description of Issue - Did operability evaluations performed for the Containment Rad monitors consider monitor's ability to operate in the atmospheric conditions following an accident?

Restart Checklist Item: N/A

Description of Resolution - Since the containment radiation monitors have never been inoperable except for maintenance, including filter changeouts, no operability evaluations have ever been completed. The licensee monitored flow, and changed the filters before the low flow alarm actuates.

Reference Material - None.

March 22, 2004

RAM Item No. - L-40 **Closed: Y**

Date of Letter - 07/15/02

Author - UCS-17a

Description of Issue - Does FENOC have an engineering calculation/analysis of non-radioactive particulate matter in containment atmosphere following DBAs?

Restart Checklist Item: N/A

Description of Resolution - An inspector discussed this issue with engineering personnel and determined that the licensee does not have an engineering analysis for non-radioactive particulate matter in the containment atmosphere following a DBA other than the sump transport analysis. This is because the system will not operate during a LOCA. The SFAS signal would isolate the sample lines, which would have to be opened manually.

Reference Material - None.

March 22, 2004

RAM Item No. - L-41 **Closed: Y**

Date of Letter - 07/15/02

Author - UCS-17b

Description of Issue - If answer to L-40 is no, how is it assured that the plant is operating within design bases with respect to 10 CFR 50, App. A, GDC4?

Restart Checklist Item: N/A

Description of Resolution - The Accident Range Gaseous Effluent Monitor draws gases from an isokinetic sample probe on the inlet line of the normal range monitor to the high range unit through the containment inlet line. These gases, drawn by a metal bellows pump, enter a particulate filter collector, and are retained on filter media. When each of the first two cartridge assemblies are filled, and the flow transfers to the third assembly, the operator must replace the two used filter cartridges. On the inlet and outlet lines of each particulate assembly, manual valves are provided to isolate an assembly for cartridge removal and replacement. For a low flow condition, such as might occur with a high concentration of non-radioactive particulate matter, a computer alarm would signal the operators to select the next filter, which can be done from the control room panel. Additionally, upon a DBA, the Safety Features Actuation System will isolate containment penetrations, including the Containment Radiation Monitoring System. Therefore, non-radioactive particulate matter within containment would not be introduced into the sample lines. The sample line isolation valves must be manually reopened to re-initiate containment atmospheric sampling, which is the method that would be used for post-accident sampling.

Reference Material - None.

March 22, 2004

RAM Item No. - L-42 **Closed: Y**

Date of Letter - 07/15/02

Author - Lochbaum

Description of Issue - Is the NRC confident that containment radiation monitors and other components inside containment will not be impaired by stuff in the air from postulated DBAs?

Restart Checklist Item: N/A

Description of Resolution - The containment radiation monitor referenced in the letter is designed to provide information to the operators on radiation levels inside containment during normal operations. It is not designed to operate during a postulated DBA. In fact, the SFAS signal would isolate the sample lines, rendering the system inoperable. Although the letter referenced other components inside containment, there is no reference to what those components may be. Assuming the writer intended this to refer to components inside containment required to operate during or following a postulated DBA, those components are designed to meet 10 CFR 50.49 environmental qualification requirements, and are qualified as such. As noted in the review of the containment radiation monitors referenced by the author, those monitors were never inoperable, even with the stuff in the air.

Reference Material - None.

RAM Item No. - L-43 **Closed: Y**

Date of Letter - 07/15/02

Author - UCS-19

Description of Issue - Has the extent-of-condition assessment by FENOC included verification that atmospheric sampling lines leading to the Normal Range particulate Radiation Skid are free from boric acid corrosion?

Restart Checklist Item: N/A

Description of Resolution - The extent of condition assessment did include an assessment of the potential for boric acid in the containment radiation monitoring sample lines. The licensee's corrective actions to resolve this issue are described in Condition Report CR 03-02451, "Boric Acid Concern with CTMT Rad Monitor Sample Lines." The licensee performed an evaluation which concluded that the sample lines did not need to be cleaned out.

Reference Material - Licensee Condition Report CR 03-02451.

March 22, 2004

RAM Item No. - L-44 **Closed: Y**

Date of Letter - 07/15/02

Author - UCS-20a

Description of Issue - Will the NRC require FENOC to inspect containment vessel to determine no damage by contact to groundwater caused by a non-conforming condition?

Restart Checklist Item: 2.b

Description of Resolution - Per the statements made in Lochbaum's subsequent letter of February 10, 2003, this item is closed to Mr. Lochbaum's satisfaction as of February 10, 2003, based on the licensee sampling the water that came in contact with the containment liner.

Reference Material - See Mr. Lochbaum's letter of February 10, 2003, which is in ADAMS as accession no. ml030490043.

RAM Item No. - L-45 **Closed: Y**

Date of Letter - 7/15/02

Author - UCS-20b

Description of Issue - If L-40 no, will NRC's MIC person independently evaluate the potential for MIC damage to the steel containment vessel before restart?

Restart Checklist Item: 2.b

Description of Resolution - Per the statements made in Lochbaum's subsequent letter of February 10, 2003, this item is closed to Mr. Lochbaum's satisfaction as of February 10, 2003, based on the licensee sampling the water that came in contact with the containment liner.

Reference Material - See Mr. Lochbaum's letter of February 10, 2003, which is in ADAMS as accession no. ml030490043.

March 22, 2004

RAM Item No. - L-46 **Closed: Y**

Date of Letter - 7/15/02

Author - UCS-21a

Description of Issue - Did FENOC evaluate potential for containment concrete erosion from the non-conforming groundwater flow?

Restart Checklist Item: 2.b

Description of Resolution - Per the statements made in Lochbaum's subsequent letter of February 10, 2003, this item is closed to Mr. Lochbaum's satisfaction as of February 10, 2003, based on the licensee sampling the water that came in contact with the containment liner.

Reference Material - See Mr. Lochbaum's letter of February 10, 2003, which is in ADAMS as accession no. ml030490043.

RAM Item No. - L-47 **Closed: Y**

Date of Letter - 7/15/02

Author - UCS-21b

Description of Issue - If answer to L-42 no, will NRC require FENOC to complete such an evaluation before restart?

Restart Checklist Item: 2.b

Description of Resolution - Per the statements made in Lochbaum's subsequent letter of February 10, 2003, this item is closed to Mr. Lochbaum's satisfaction as of February 10, 2003, based on the licensee sampling the water that came in contact with the containment liner.

Reference Material - See Mr. Lochbaum's letter of February 10, 2003, which is in ADAMS as accession no. ml030490043.

March 22, 2004

RAM Item No. - L-48 **Closed: Y**

Date of Letter - 7/15/02

Author - UCS

Description of Issue - What damaged valve RC-262?

Restart Checklist Item: 3.d & 3.f

Description of Resolution - Based on an inspector's review of the applicable condition report, the "valve" was not damaged. The packing leak off tap was not being used and had a plug screwed into it which leaked. This was the leakage source from the valve, and the location of the tap was such that it did not constitute part of the defined Reactor Coolant System (RCS) pressure boundary.

Reference Material - Licensee Condition Report CR 00-1452.

RAM Item No. - L-49 **Closed: Y**

Date of Letter - 07/15/02

Author - UCS

Description of Issue - If boric acid was the root cause of the damage to RC-262, should NRC have evaluated the temporary modification in context of RC-2 damage?

Restart Checklist Item: 3.d & 3.f

Description of Resolution - Based on an inspector's review of the applicable documentation to address the damage to RC-262, the inspector concluded that boric acid was not the root cause of the damage. The threaded packing gland and plug involved in the leakage from RC-262 were stainless steel (not carbon) and there was no evidence of boric acid damage noted. Since boric acid did not damage the valve, there was no basis to re-evaluate the subsequent use of the Furmanite seal used to isolate the leak. During the subsequent outage, the valve bonnet was replaced to effect permanent repair of the valve.

Reference Material - Licensee Work Order 00-002293-004.

March 22, 2004

RAM Item No. - L-50 **Closed: Y**

Date of Letter - 7/15/02

Author - UCS

Description of Issue - If boric acid was root cause of RC-262 damage (reference RAM Item No. L-48), doesn't back to back damage to RC-2 and RC-262 suggest FENOC's extent of condition and problem resolution processes are flawed?

Restart Checklist Item: 3.d & 3.f

Description of Resolution - Since boric acid was not the cause of RC-262 damage, this item is moot. There is no suggestion that FENOC's extent of condition or problem resolution were flawed.

Reference Material - RAM Item No. L-48.

RAM Item No. - L-51 **Closed: Y**

Date of Letter - 7/15/02

Author - UCS

Description of Issue - If boric acid was not cause of damage to RC-262, isn't FENOC's ISI, PM, and aging management flawed?

Restart Checklist Item: 3.d & 3.f

Description of Resolution - The location of the leak was not at a pressure boundary point, and as such, would not be observed as part of the ISI inspection. Corrective actions for the licensee's ISI inspection program were reviewed by the NRC's programs inspection (see inspection report 03-09) and found to be acceptable. The leak was caused by a bad screw connection at the packing leak off tap plug. Attempt to seal weld leaking threads on packing leak off tap was unsuccessful due to access problems. Subsequently, Furmanite leak seal was used. During the next outage valve bonnet was replaced using live load packing.

Reference Material - RAM Item No. L-48.

March 22, 2004

RAM Item No. - L-52 **Closed: Y**

Date of Letter - 7/15/02

Author - UCS-25

Description of Issue - When NRC inspectors examine an incident, are they formally trained and instructed to test the licensee's theory by reviewing plant-specific and industry experience?

Restart Checklist Item: N/A

Description of Resolution - NRC inspectors examine an incident through implementation of Inspection Manual Chapter 93800 (AIT) and development of a charter. Part of the inspection program is to risk-inform the inspection to focus on safety significance of issues and areas to inspect. Qualification training for inspectors includes a mandatory "Root Cause/Incident Investigation" course. This course provides the basics in several approaches to identifying the cause of an incident, and is used by inspectors to develop the NRC's assessment of root cause, which is then compared to the licensee's. The course includes looking at previous history (plant-specific or generic). Depending on the nature of the incident, the AIT Charter will contain appropriate focus on operating experience.

Reference Material - Inspection Module 93800, Inspection Manual Chapter 1245

March 22, 2004

RAM Item No. - L-53 **Closed: Y**

Date of Letter - 7/15/02

Author - Lochbaum

Description of Issue - Did FENOC perform an extent-of-condition assessment for its containment insulation specification problem?

Description of Resolution - Yes. The licensee reviewed the extent-of-condition of containment coatings in preparation for restart. The details of the licensee review results are discussed in NRC Inspection Report No. 50-346/03-17. Specifically, Calculation C-NSA-049.02-26, Revision 01, documents the NPSH licensing basis analysis for the low pressure injection pumps and the containment spray pumps. Of interest for this inspection, was the maximum NPSH margin allotted for ECCS strainer fouling. This calculation documented that the available margin for the most limiting component was 2.5 feet-water.

The current licensee inventory of Non-DBA qualified protective coatings located in containment was tabulated in calculation C-CSS-100.05-001, "Service Level 1 Non-DBA Qualified Protective Coating Application Inventory," Revision 03. This calculation documented the quantity of non-DBA qualified protective coating material present in containment and tracked that quantity against a permissible amount established by an ECCS sump debris loading analysis.

Calculation C-NSA-049.02-032, "Davis-Besse Emergency Sump Strainer Head Loss," Revision 00, determined the pressure drop across the ECCS emergency sump screens due to the accumulation of debris following a postulated loss of coolant accident. The calculation described the limiting scenario as a hot leg break on top of the steam generator located in the east D-ring. The information provided, pertaining to unqualified coatings, for this scenario was:

- Inorganic Zinc 9260 square feet
- Epoxy 9260 square feet
- Alkyds 3500 square feet

Based on this information and additional information on other qualified material that would impact ECCS sump strainer head loss post accident (fiber, reflective metallic insulation, dirt/dust, rust flakes, and other miscellaneous material), a fouled screen head loss value of 1.6 feet-water was obtained at the maximum low pressure injection pump and containment spray pump flow rates. Since the fouled strainer head loss of approximately 1.6 feet-water was less than the limiting margin of 2.5 feet-water, the calculation concluded that adequate NPSH margin was provided to the low pressure injection and containment spray pumps with the new ECCS sump strainer installed.

Calculation C-CSS-100.05-001 was recently revised to include updated information regarding the non-DBA qualified inventory in containment. This reevaluation documented the following changes:

- Inorganic Zinc 0 square feet

- Powder Coating 199 square feet
- Epoxy 7170 square feet (two layers)
- Alkyd 4439 square feet

Additionally, the licensee has decreased the amount of fibrous insulation and increased the amount of reflective metallic insulation that was used as inputs for calculation C-NSA-049.02-032, “Davis-Besse Emergency Sump Strainer Head Loss,” Revision 00. At the time this report was issued, the revision to this calculation, which will incorporate the above changes, was in progress. The inspectors reviewed two letters prepared by the licensee contractor performing the calculation revision. These letters documented a preliminary assessment of the “impact of reduced fiber insulation debris on strainer head loss” and the “impact of revised unqualified coatings estimates on strainer head loss.” These letters stated, pending completion of the formal calculation, that the current calculation, in regards to fibrous insulation was conservative and that the NPSH margin may actually improve slightly due to the changes in unqualified coating estimates.

The inspectors determined that even though the current post accident NPSH margin that existed for the most limiting component was small (0.9 feet-water), the licensee’s methods used to quantify and evaluate the unqualified coatings that remained in containment were adequate. This item is considered closed for restart.

Reference Material - NRC Inspection Report No. 50-346/03-17 (ADAMS Accession No. ml032721592).

March 22, 2004

RAM Item No. - L-54 **Closed: Y**

Date of Letter - 7/15/02

Author - Lochbaum

Description of Issue - If L-53 is yes, has the NRC verified its completeness and accuracy?

Description of Resolution - As part of the process to develop a containment transport analysis, the licensee evaluated the amount of material such as qualified coatings, unqualified coatings, reflective insulation, and fibrous insulation present in the containment building. The inspectors' review included an evaluation of how the licensee assessed and quantified each material and how the licensee used this information in the development of their containment transport analysis and, based on the results of the transport analysis, the ultimate impact of those materials on debris loading of the ECCS sump screen. The inspectors did verify that the licensee's debris loading analysis included insulation material located in containment, and that the conclusions for materials present in containment were reasonable. This item is considered closed for restart.

Reference Material - NRC Inspection Report No. 50-346/03-17 (ADAMS Accession No. ml032721592).

RAM Item No. - L-55 **Closed: Y**

Date of Letter - 7/15/02

Author - UCS-27b

Description of Issue - If L-49 is no, how can NRC be assured that D-B is not unduly vulnerable to GSI-191 related safety problems?

Restart Checklist Item: 2.c.1

Description of Resolution - The NRC has issued Bulletin 2003-001, "Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized-Water Reactors," requiring all licensees, including Davis-Besse, to analyze the containment sumps to ensure that they are not unduly vulnerable to GSI-191 problems. In addition, Davis-Besse has installed a completely modified sump screen. The inspection of the adequacy of that sump screen is documented in NRC Inspection Report 50-346/03-06, issued on June 17, 2003. A copy of that inspection report can be obtained from ADAMS at Accession No. ml031710897.

Reference Material - NRC Bulletin 2003-001 and ADAMS Accession no. ml031710897.

March 22, 2004

RAM Item No. - L-56 **Closed: Y**

Date of Letter - 7/15/02

Author - UCS-28a

Description of Issue - Should the hydrostatic test in 2000 have identified leakage from CRDM nozzle #3?

Restart Checklist Item: N/A

Description of Resolution - The LLTF reviewed this issue and developed LLTF Action 3.3.4(8), which has been adopted by the Commission.

Reference Material - Both the LLTF report, dated September 30,2002, and the SMRT Memo from Paperiello to Travers dated November 26, 2002, are available at the Davis-Besse news and correspondence page of the NRC website.

RAM Item No. - L-57 **Closed: Y**

Date of Letter - 7/15/02

Author - UCS-28b

Description of Issue - If answer to L-52 is no, should the NRC require licensees to revise hydrostatic testing procedures so they can find leakage?

Restart Checklist Item: N/A

Description of Resolution - The LLTF reviewed this issue and developed LLTF Action 3.3.4(8), which has been adopted by the Commission.

Reference Material - Both the LLTF report, dated September 30,2002, and the SMRT Memo from Paperiello to Travers dated November 26, 2002, are available at the Davis-Besse news and correspondence page of the NRC website.

March 22, 2004

RAM Item No. - L-58 **Closed: Y**

Date of Letter - 7/15/02

Author - UCS-29a & UCS-29b

Restart Checklist Item: N/A

Description of Issue - Does the NRC believe that forcing a company to write 8 CRs really indicates a proper threshold for CRs? If yes, please explain.

Description of Resolution - It is a normal practice for licensee's to address NRC inspection findings by the creation of condition reports or similar documents to put the findings into the licensee's corrective action system. The NRC does not have a set threshold for the number of condition reports that a licensee should write, nor does the NRC force licensees to write condition reports. The licensee writes condition reports to identify safety issues so that the appropriate assessment and corrective action can be accomplished for each issue. One of the concepts that is an important part of the Reactor Oversight Program, is that the licensee has a robust corrective action program that identifies issues, at the appropriate thresholds, and corrects the identified deficiencies in a timely manner, commensurate with plant safety. This is a requirement of Criterion XVI of Appendix B to 10 CFR Part 50, including for those issues identified by NRC inspections. It is very rare that an NRC inspection does not identify issues, some more serious than others. The NRC would expect the licensee to place those issues into its condition reporting system. As to whether 8 condition reports constitutes a proper threshold for CRs, that depends on the type of inspection conducted and whether the licensee also performed an identical inspection of the same areas.

Reference Material - None.

RAM Item No. - L-59 **Closed: Y**

Date of Letter - 8/05/02

Author - UCS (NRR #L-26)

Description of Issue - Release FOIA 2002-0229 to Paul Gunter and Public Document Room.

Restart Checklist Item: N/A

Description of Resolution - By letter from Travers to Lochbaum dated September 10, 2002, we stated that the FOIA to Paul Gunter had been released.

Reference Material - Letter from Travers to Lochbaum dated September 10, 2002, and in ADAMS as accession no. ml022550222.

March 22, 2004

RAM Item No. - L-60 **Closed: Y**

Date of Letter - 8/05/02

Author - UCS (NRR #L-27)

Description of Issue - Requests that LLTF conduct public meetings at least 30 days after FOIA 2002-0229 is released.

Restart Checklist Item: N/A

Description of Resolution - Per the letter from Travers to Lochbaum dated September 10, 2002. Public meetings were held both at the site and with the Commission after issuance of the LLTF report.

Reference Material - Letter from Travers to Lochbaum dated September 10, 2002, and in ADAMS as accession no. ml022550222.

RAM Item No. - L-61 **Closed: Y**

Date of Letter - 8/05/02

Author - UCS (NRR #L-28)

Description of Issue - Remove E. Hackett from LLTF and replace.

Restart Checklist Item: N/A

Description of Resolution - Per letter from Travers to Lochbaum dated September 10, 2002. Mr. Hackett was not considered to be biased and was not part of the management team that made the “continued operations until February” decision.

Reference Material - Letter from Travers to Lochbaum dated September 10, 2002, and in ADAMS as accession no. ml022550222.

March 22, 2004

RAM Item No. - L-62 **Closed: Y**

Date of Letter - 8/05/02

Author - UCS (NRR #L-29)

Description of Issue - Evaluate E. Hackett's bias.

Restart Checklist Item: N/A

Description of Resolution - See resolution in letter from Travers to Lochbaum dated September 10, 2002. Mr. Hackett was not considered by be biased and was not part of the management team that made the "continued operations until February" decision.

Reference Material - Letter from Travers to Lochbaum dated September 10, 2002, and in ADAMS as accession no. ml022550222.

RAM Item No. - L-63 **Closed: Y**

Date of Letter - 9/27/02

Author - UCS

Description of Issue - Prepare response for "NRC Needs New Glasses" letter.

Restart Checklist Item: N/A

Description of Resolution - No action. Neither the NRC nor Mr. Lochbaum could locate the referenced letter. As such, there is no document on which to reply.

Reference Material - None.

March 22, 2004

RAM Item No. - L-64 **Closed: Y**

Date of Letter - 08/11/02

Author - Gurdziel # 1

Description of Issue - Has anyone inspected the bottom of the vessel, vessel soleplate, baseplate, anchor bolts, and concrete pedestal for eroded areas?

Restart Checklist Item: 2.c

Description of Resolution - Yes. This was done as part of the Containment extent of Condition inspection and Boric Acid Corrosion extent of condition inspections. See inspection reports 02-09 and 02-12.

Reference Material - Inspection Report 2002-009 was issued on September 13, 2002, and is in ADAMS as accession no. ml022560237. Inspection Report 2002-012 was issued on November 29, 2002, and is in ADAMS as accession no. ml023370132.

RAM Item No. - L-65 **Closed: Y**

Date of Letter - 08/18/02

Author - Gurdziel # 3

Description of Issue - Acid leaking down the head may flow into the holes that are used by the studs causing the threads to no longer be full size. Also, the acid may flow into the grooves of the reactor vessel to reactor head o-rings, changing their dimensions.

Restart Checklist Item: 2.c

Description of Resolution - The containment Extent of Condition inspection and Boric Acid Corrosion extent of condition inspections looked at the licensee's programs to ensure that the studs and threads were acceptable. See inspection reports 02-09 and 02-12.

Reference Material - IR 2002-009 and IR 2002-012.

March 22, 2004

RAM Item No. - L-66 **Closed: Y**

Date of Letter - 09/07/02

Author - Gurdziel # 4

Description of Issue - Check of some existing welds on the replacement head couldn't be done due to the placement of lifting lugs. Couldn't you remove the stainless steel on the bottom surface and test that way?

Restart Checklist Item: N/A

Description of Resolution - The licensee applied for and was granted code relief to not inspect these welds. Inspection from the interior surface of the vessel is not technically feasible.

Reference Material - ADAMS Accession Nos. ml022830831 & ml023050104

March 22, 2004

RAM Item No. - L-67 **Closed: Y**

Date of Letter - 09/07/02

Author - Gurdziel # 4

Description of Issue - Is the Plant Operations Review Group competent.

Restart Checklist Item: N/A

Description of Resolution - At Davis Besse, the Station Review Board (SRB) is the group that would perform the role traditionally performed at other plants by a Plant Operations Review Committee (PORC). However, significant deficiencies were found with the conduct of the Station Review Board in the licensee's Root Cause Analysis Report entitled "Lack of Operations Centrality in Maintaining, Assuring, and Communicating the Operational Safety Focus of Davis-Besse and Lack of Accountability of Other Groups to Operations in Fulfilling that Role." As noted in that report, there was no requirement that someone from the operations department be a member of the SRB, and in fact, the SRB had functioned for one and a half years with no Operations Department membership. In addition, it was the management review board that categorized condition report significance, and the corrective action review board then evaluated the root causes and corrective actions associated with those condition reports. Neither of these groups required Operations personnel be in attendance. Finally, the root cause report stated that senior management failed to ensure that a safety conscious work environment was established and maintained in Operations and that there was a lack of senior management support for Operations' leadership role in assuring plant safety. The report then identified many examples of corrective actions that were initiated to address the findings identified in the report. The adequacy of the report and associated corrective actions was inspected by NRC staff and documented in Inspection Report 02-18. The NRC's inspection report concluded that FirstEnergy Nuclear Operating Company's overall assessment was of appropriate depth and breadth to develop actions to correct and prevent recurrence of the management and human performance deficiencies associated with the reactor head degradation; that if properly implemented and monitored, the corrective actions will appropriately address the issues identified in the assessments; and that the scheduling and implementation of the corrective actions have been appropriate.

Reference Material - None.

March 22, 2004

RAM Item No. - L-68 **Closed: Y**

Date of Letter - 09/07/02

Author - Gurdziel # 4

Description of Issue - Lack of Quality Control and electrician supervision based on inadequate threads on a bolted connection.

Restart Checklist Item: N/A

Description of Resolution - The condition was identified by the licensee, and placed into the licensee's corrective action system for resolution. This is the normal process for handling identified discrepancies. It is not appropriate to automatically assume that any personnel error resulting in a hardware deficiency automatically points to lack of quality control and supervision. There are examples where quality control may not even be involved in the evolution in question, and supervisors do not normally re-check all work performed by each worker they supervise.

Reference Material - None.

RAM Item No. - L-69 **Closed: Y**

Date of Letter - 09/07/02

Author - Gurdziel # 4

Description of Issue - Could the missing machine screws on wires to a micro switch be the result of vibration instead of poor assembly?

Restart Checklist Item: N/A

Description of Resolution - The condition was identified by the licensee, and placed into the licensee's corrective action system for resolution. This is the normal process for handling identified discrepancies. It is inappropriate to speculate at this point. The corrective action process is designed to determine the cause of the event and initiate corrective actions to prevent recurrence.

Reference Material - None.

March 22, 2004

RAM Item No. - L-70 **Closed: Y**

Date of Letter - 09/13/02

Author - Gurdziel # 5

Description of Issue - Does the corrective action process allow closure of an item to a work order?

Restart Checklist Item No.: N/A

Description of Resolution - The answer to the question is yes. The corrective action program (CAP) at Davis-Besse is comprised of three levels of condition reports; Significant Conditions Adverse to Quality (SCAQ), Conditions Adverse to Quality (CAQ), and Condition Not Adverse to Quality (NCAQ). The procedure that defines the CAP at Davis-Besse is NOP-LP-2001, "Condition Report Process," Revision 04. Step 4.1.10 of this procedure states "all CAFs [corrective action forms] for condition reports categorized as SCAQ and CAQ shall be tracked in the CREST [Condition Report and Status Tracking] database from the initiation until the approved corrective action(s) are implemented, have corrected the deficiency and their implementation is documented in the database. CAFs for condition reports categorized as NCAQ may be closed to other tracking systems as applicable." This would include a work order. Examples of issues that would be categorized at NCAQ include: minor drawing errors, instrument errors that do not render equipment inoperable, minor personnel contamination incidents, procedural deficiencies in non-safety related and non-quality procedures with no adverse consequences, data entry errors that have no impact, and certain equipment failures involving components that are Non-Q or Non-AQ, including Maintenance Rule non-safety related functional failures.

Reference Material - Licensee procedure NOP-LP-2001, "Condition Report Process."

March 22, 2004

RAM Item No. - L-71 **Closed: Y**

Date of Letter - 09/17/02

Author - Gurdziel # 6

Description of Issue - Operator work arounds. To me, this is just a way to avoid fixing equipment.

Restart Checklist Item: N/A

Description of Resolution - The Davis-Besse resident inspectors routinely evaluate operator work arounds as part of Baseline Inspection Procedure No. 71111.16. The most recent NRC inspection included a cumulative assessment of all existing operator work arounds. No concerns were noted. This inspection is documented in IR 50-346/03-22.

Reference Material - None.

RAM Item No. - L-72 **Closed: Y**

Date of Letter - 10/04/02

Author - Gurdziel # 8

Description of Issue - Was the tube rolling device being removed from nozzle #3 because it had successfully met the imposed requirements?

Restart Checklist Item: N/A

Description of Resolution - This item is no longer relevant, as the old head has been replaced.

Reference Material - None.

March 22, 2004

RAM Item No. - L-73 **Closed: Y**

Date of Letter - 10/05/02

Author - Gurdziel # 9

Description of Issue - Institute a $ 50M fine against company and fines against many individuals associated with QA, Management, ISEG, and anyone found to be dishonest.

Restart Checklist Item: N/A

Description of Resolution - The NRC will follow its normal enforcement process for taking actions against individuals and the company. That process calls for the issuance of a significance determination and determining whether any of the violations were willful. The first phase has been completed, in that the NRC has determined that the finding was significant, resulting in a "red" violation. The second process, determining if the associated violations were willful, is under investigation by the NRC's Office of Investigations, and may not be completed prior to restart of the facility. Once the Office of Investigation completes its work, if any violations were determined to be wilful, the results are forwarded to the Department of Justice for review. The Department may either choose to take the case, or refer it back to the NRC for civil action. At that point, the NRC would proceed to take action, which, depending on the willful nature of the violation, could be anything ranging from no action to banning the individuals from being involved in any NRC-regulated activity for life.

Reference Material - None.

March 22, 2004

RAM Item No. - L-74 **Closed: Y**

Date of Letter - 10/18/02

Author - Gurdziel (G-10)

Description of Issue - After reviewing the LLTF report, Mr. Gurdziel concluded that large nuclear operating companies can be unsafe if they provide bad direction or fail to provide good corrective direction. Such direction, or lack of it, may be propagated to all plants run by the organization. Specifically, with a QA organization at Davis-Besse that provides incompletely reported information, shouldn't the NRC be inspecting the QA function for completeness in reporting at ALL other plants run by FENOC?

Restart Checklist Item: N/A

Description of Resolution - The corporate Quality Audit Program has undergone significant improvements as a result of reviews conducted after the head degradation event. The NRC has reviewed the licensee's discovery efforts as well as program improvements (see inspection report numbers 50-346/2003-009 and 50-346/2003-023). The Reactor Oversight Process has been conducted at the other FENOC facilities. A component of that inspection program looks at licensees programs for problem identification and resolution. To date, there has been no indication that the issues at Davis-Besse extend to other FENOC facilities.

Reference Material - Inspection Reports 50-346/2002-011 (ADAMS Accession No. ml031880844), 50-346/2003-009 (ADAMS Accession No. ml031880844) and 50-346/2003-023 (ADAMS Accession No. ml033421074).

RAM Item No. - L-75 **Closed: Y**

Date of Letter - 10/24/02

Author - Gurdziel # 11

Description of Issue - Have the State of Ohio send inspectors to check one overhead crane, like the polar crane, to see if all those things have been corrected.

Restart Checklist Item: N/A

Description of Resolution - The cranes are not subject to inspection by the State, as they have no jurisdiction over the adequacy of the cranes. The polar crane, and other cranes used to handle safety-related equipment, are under the inspection oversight of the NRC. The NRC's inspection program is described in detail in NRC Manual Chapter 2515 for operating reactors.

Reference Material - NRC Manual Chapter 2515.

March 22, 2004

RAM Item No. - L-76 **Closed: Y**

Date of Letter - 11/21/02 (G-14)

Author - Gurdziel

Description of Issue - Is there another leaking source of the “rust trails” at the bottom of the vessel rather than assuming cavity seal leakage?

Restart Checklist Item: 2.c.

Description of Resolution - In its July 30, 2003, submittal to the NRC, the licensee stated that based on evidence to date, there were four potential sources of the “rust trails” at the bottom of the vessel. While one of these potential sources was refueling cavity seal leakage, the others related to leakage from the refueling canal through the reactor pressure vessel (RPV) nozzle access covers, leakage from cracks found in the RPV flange O-rings monitor lines, and effluent from RPV upper-head decontamination and cleaning activities during the past Davis-Besse outages. The NRC’s Office of Nuclear Reactor Regulation reviewed the licensee’s submittal and concluded that (1) the results of the chemical analysis do not provide conclusive evidence hat the deposits observed at Davis-Besse were from IMI nozzles, and (2) the deposits observed at Davis-Besse were characteristic of deposits left by washdown from higher elevation sources.” This conclusion was confirmed by the observations made by the licensee and NRC inspection of the lower vessel head after the conclusion of the NOP test, which was completed in early October 2003.

Reference Material - Licensee submittal to NRC dated July 30, 2003 (ADAMS Accession No. ml032160384) and NRC Inspection Report No. 50-346/03-23.

March 22, 2004

RAM Item No. - L-77 **Closed: Y**

Date of Letter - 11/21/02

Author - Gurdziel # 14

Description of Issue - I still haven't seen the full transcript of the October meeting or the Management Root Cause to be done on Operations, Corporate QA, and the one on Site QA (4 documents).

Restart Checklist Item: N/A

Description of Resolution - All of the documents referenced in the description are currently available on the NRC's Davis-Besse website. Associated ADAMS accession numbers are as follows: ml030150838, ml030240394, ml030240408, ml030240424, ml030240440, and ml030240482.

Reference Material - ADAMS Accession Nos. ml030150838, ml030240394, ml030240408, ml030240424, ml030240440, and ml030240482.

March 22, 2004

RAM Item No. - L-78 **Closed: Y**

Date of Letter - 12/05/02

Author - Gurdziel (G-15)

Description of Issue - May be worthwhile to have a review done of the previously-done incore tube modification process with particular attention to the possibility of weld fracture at the bottom of the original weld (weld metals used and ability to resist boric accident, amount of heat to be deposited by welding, etc.).

Restart Checklist Item: 2.c

Description of Resolution - The licensee conducted a 7 day test at normal operating pressures and temperatures designed to look for any leakage form the incore tubes. There was no indication of leakage after the NOP, therefore there is no reason at this time to pursue details of this old modification. Documentation of the NRC's review of the licensee's activities associated with the NOP test is in NRC Inspection Report No. 50-346/2003-023, which was issued on December 5, 2003.

Reference Material - NRC Inspection Report No. 50-346/2003-023 (ADAMS Accession No. ml033421074).

RAM Item No. - L-79 **Closed: Y**

Date of Letter - 12/05/02

Author - Gurdziel (G-15)

Description of Issue - If there has been leakage of reactor coolant from the lower incore welds, the contingency repairs proposed by FENOC would exacerbate the potential for boric acid attack of the lower vessel head and incore monitoring wires.

Restart Checklist Item: N/A

Description of Resolution - The NRC staff did not review the methodology for contingency repairs at this time because the results of the licensee's Normal Operating Pressure/Near Operating Temperature (NOP/NOT) test was that there was no indication of reactor coolant leakage from the incore monitoring instrumentation nozzles. Given these test results, the licensee does not plan to perform any repairs of the nozzles.

Reference Material - NRC Inspection Report No. 50-346/03-23.

March 22, 2004

RAM Item No. - L-80 **Closed: Y**

Date of Letter - 12/07/02

Author - Gurdziel (G-16)

Description of Issue - Comments on FENOC changes to commitments, as documented in the licensee's letter dated November 18, 2002, "Regulatory Commitment Change Summary Report (May 18, 2000 - May 18, 2002)." Comments are either disagreement with the changes or comments that the changes are production oriented.

Restart Checklist Item: N/A

Description of Resolution - The NRC staff reviewed the licensee's summary report of changes to commitments referenced above. There were various reasons for the commitment changes including reflecting plant changes, reflecting changes to ASME Code requirements, relaxing or increasing preventive maintenance frequency based on plant experience, and reevaluation of the commitment. From its review, the staff concluded that the changes did not raise safety or regulatory concerns and the number of changes were not excessive. Therefore, no further action is required.

Reference Material - FENOC Regulatory Commitment Change Summary Report (ADAMS Accession No. ML023260058).

RAM Item No. - L-81 **Closed: Y**

Date of Letter - 12/16/02

Author - Gurdziel # 17

Description of Issue - For the containment elevator safety glasses incident mentioned in Inspection Report 50-346/02-17, should a for cause fitness-for-duty test have been performed?

Restart Checklist Item: N/A

Description of Resolution - Inspectors reviewed the licensee procedure NOP-LP-1002, "Fitness for Duty Program," which governs the licensee response to fitness-for-duty issues. The purpose of this procedure is to "provide reasonable assurance that personnel perform their duties in a safe, reliable, and trustworthy manner and are not under the influence of legal or illegal substances or mentally impaired from other causes which would adversely hinder their ability to competently perform their duties." Based on a review of the circumstances

surrounding the event, it is the inspector's conclusion that no fitness for duty evaluation was warranted for the licensee personnel involved.

Reference Material - Licensee Procedure NOP-LP-1002, "Fitness for Duty Program."

March 22, 2004

RAM Item No. - L-82 **Closed: Y**

Date of Letter - 12/16/02

Author - Gurdziel (G-17)

Description of Issue - For the NOP/NOT test there should be a process to check for leaks while the reactor is pressurized - the concept of risk is not turned around when risk to a few workers is more important than risk to a larger number of people in Ohio.

Restart Checklist Item: N/A

Description of Resolution - Although walkdowns were not performed over the entirety of the RCS system due to personnel safety considerations, several walkdowns of the RCS while at pressure were performed during the NOP leak test. As a result of these walkdowns, the licensee issued more than 150 CRs to address at pressure walkdown findings. In addition, the licensee looked for leaks after the pressure and temperature of the RCS was reduced. Since the RCS coolant contains a fairly high concentration of boric acid, any leak would be identified by the white powder-like deposit of boric acid residue. Documentation of the NRC's review of the licensee's activities associated with the NOP test is in NRC Inspection Report No. 50-346/2003-023, which was issued on December 5, 2003.

Reference Material - NRC Inspection Report No. 50-346/2003-023 (ADAMS Accession No. ml033421074).

RAM Item No. - L-83 **Closed: Y**

Date of Letter - 12/16/02

Author - Gurdziel (G-17)

Description of Issue - How could you roll and weld tubes with air behind them, meet applicable standards, and not have even one question from any credible review organization about the value of what you are doing?

Restart Checklist Item: N/A

Description of Resolution - The question was considered by the Panel to be rhetorical in nature. Therefore, this item is closed based on the question's rhetorical nature.

Reference Material - None.

March 22, 2004

RAM Item No. - L-84 **Closed: Y**

Date of Letter - 12/16/02

Author - Gurdziel (G-17)

Description of Issue - If GDC-32 does not apply to the D-B reactor vessel, just how many reactors does it apply to, and why wouldn't it apply to the modification to the in-core tubes of the D-B reactor.

Restart Checklist Item: N/A

Description of Resolution - 10 CFR 50, Appendix A, General Design Criteria including Criterion 32, "Inspection of Reactor Coolant Pressure Boundary," became effective on May 21, 1971. The GDCs apply to those plants that received a construction permit on or after that date. Since the Davis-Besse construction permit was issued before the above date, GDC-32 would not apply to any modification of their reactor vessel bottom head incore instrumentation penetration nozzles. However, Davis-Besse was licensed to similar requirements that would have to be met if modifications were made to the bottom head incore instrumentation penetration nozzles.

Reference Material - None.

RAM Item No. - L-85 **Closed: Y**

Date of Letter - 02/08/03

Author - Gurdziel (G-19)

Description of Issue - Numerous examples of how the licensee mis-identifies primary coolant leakage, including reactor coolant pumps having longstanding casing gasket leakage.

Restart Checklist Item: 2.c

Description of Resolution - A letter was written to Mr. Gurdziel describing the status of the reactor coolant pumps, and the details of the licensee's basis for fixing two pumps during this outage, the appropriateness of the licensee's methodology for identifying coolant leakage, and that none of the pumps actually showed evidence of reactor coolant leakage during operations.

Reference Material - Letter dated December 2, 2003 (ADAMS Accession No. ml033370097)

March 22, 2004

RAM Item No. - L-86 **Closed: Y**

Date of Letter - 11/15/02

Author - State of Ohio to Grobe

Restart Checklist Item: N/A

Description of Issue - Request to notify Ohio Board of Registration for Professional Engineers if NRC investigation reveals that any Ohio PE acted improperly.

Description of Resolution - Letter sent from the Panel Chairman to the Ohio Board of Professional Engineers dated June 13, 2003, appraising them of the NRC's enforcement process and investigation status.

Reference Material - ADAMS Accession numbers ml03163159 and ml023230384.

RAM Item No. - L-87 **Closed: Y**

Date of Transcript - 08/15/02

Author - Mr. Riccio's question to 0350 Panel at public mtg.

Description of Issue - Mr. Riccio asked what needs to be done to assure that the design basis is maintained and understood, and what's to give the public any confidence that not only the industry and licensee has taken steps to improve its processes. Mr. Grobe said that he will consider it in how we structure the inspections we do at D-B.

Restart Checklist Item: 2

Description of Resolution - Answered in private at meeting. Restart checklist includes design adequacy of systems. Inspections conducted to evaluate design compliance include the System Health and Safety System Design Inspection (Inspection Report Nos. 02-13 and 02-14, respectively) which were forwarded to the licensee by one cover letter dated February 26, 2003.

Reference Material - ADAMS Accession No. ml030630314.

March 22, 2004

RAM Item No. - L-88 **Closed: Y**

Date of Letter - 02/16/03

Author - Gurdziel (G-20)

Description of Issue - Each trail of leakage on the side of the reactor vessel is the result of a failure of the reactor upper head flange gaskets at different times during previous runs. Will they use new gaskets, or re-use the old one?

Restart Checklist Item: 2.c

Description of Resolution - There has never been any indication that the trails on the side were associated with gasket leakage. The licensee has always used new gaskets. The author's assumption appears to be that gaskets are re-used between outages. In reality, the licensee uses O-rings and not gaskets for these seals. Discussions with the cognizant licensee engineer verified that new O-rings are used each refueling outage. Prior to the most recent installation of the reactor head, the inspectors observed the two new O-rings that were staged in the Containment building.

As part of the normal plant testing during heatup, the reactor upper head flange to reactor flange inner O-ring is verified to be leak tight. This is done by opening a leakoff isolation valve that taps off a small annulus area located between the two O-rings. This was performed during the licensee's recent NOP test, with no leakage detected.

Reference Material - NRC Inspection Report No. 50-346/03-23.

March 22, 2004

RAM Item No. - L-89 **Closed: Y**

Date of Letter - 02/10/03

Author - Lochbaum

Description of Issue - Were the system assessments at D-B as rigorous as those conducted at Millstone and Cook in flushing out heretofore unidentified non-conforming conditions?

Restart Checklist Item: N/A

Description of Resolution - The licensee's System Health Assurance (SHA) Plan was one of seven building blocks identified as part of the licensee's Return to Service Plan following identification of the degradation of the reactor head. The intent of the SHA plan was to review plant systems prior to restart to ensure that these systems were in a condition that would support safe and reliable plant operation. The plan consisted of three review programs: (1) an Operational Readiness Review; (2) a System Health Readiness Review (SHRR); and (3) a Latent Issues Review (LIR). The NRC's initial inspection of the SHA plan (documented in Inspection Report 50-346/2002-013) monitored all aspects of the plan's implementation on a real-time basis, including quality assurance oversight. At the close of that inspection a limited number of SHRRs and none of the LIRs had been completed. The NRC subsequently conducted an inspection to review a sample of completed SHRRs and all five of the LIRs (documented in Inspection Report 50-346/2003-003). Based on the results of these inspections, the NRC staff concluded that "the System Health Assurance Plan met its intent to review plant systems prior to restart to ensure that these systems were in a condition that would support safe and reliable plant operation and that the discovery phase of the program was conducted in a thorough and methodical manner in accordance with the procedures established for these reviews. The original stated intent of the program was to provide assurance that important plant systems were able to perform their safety functions and support plant restart and operation. In fact, what occurred was that the program identified many systems where either significant deficiencies, or a large number of deficiencies, existed such that these systems were not in a condition to support restart and operation and that corrective action was needed to restore these systems. Further, we noted that the most significant deficiencies were found in vital systems such as service water, emergency core cooling, diesel generator, and electrical distribution." As a result of the efforts, the licensee has performed many significant hardware modifications, including the emergency sump, high pressure coolant injection pumps, containment air coolers, and electrical distribution system to name a sample. The inspections did not make an attempt to compare the licensee's performance with other facilities, rather, the inspections were focused on ensuring the licensee's efforts were appropriate and adequate to identify all potential system problems and bring the identified problems to resolution. The licensee's program for Resolution of Open Design Questions, which was developed as a result of the discovery phase, had two fundamental elements. One involved determining extent of condition of the deficiencies identified during the discovery phase and the second was resolution of system deficiencies through the use of the station's established corrective action program. In NRC Inspection Report 50-346/2003-003, the NRC documented its conclusions relative to monitoring and evaluating the extent of condition review element. The inspection concluded "these extent of condition reviews were conducted in an appropriate manner with

acceptable results." Resolution of identified deficiencies was examined by an NRC Corrective Actions Team inspection (documented in Inspection Report 50-346/2003-010).

Reference Material - NRC Inspection Report Nos. 50-346/2002-013 dated February 26, 2003 (ADAMS Accession No. ml030630314), 50-346/2003-003 dated October 21, 2003 (ADAMS Accession No. ml032950012), and 50-346/2003-010 which will be issued later in December 2003.

RAM Item No. - L-90 **Closed: Y**

Date of Letter - 02/10/03

Author - Lochbaum

Description of Issue - Did FENOC properly evaluate problems raised during the system assessments at D-B for reportability under 10 CFR 50.72 and 50.73? In a letter dated February 10, 2003, the Union of Concerned Scientists questioned whether the licensee was properly evaluating the reportability of issues identified during the system reviews. This was based on a subjective comparison to the number of LERs issued under similar review programs conducted at plants such as Cook and Millstone.

Restart Checklist Item: 2.all

Description of Resolution - The inspectors reviewed the corrective actions and considered them adequate and appropriate to the circumstances. All restart-related corrective actions were verified to be complete including submission of LERs and LER supplements. The inspectors examined the licensee's operability/reportability status on a periodic basis to ensure that significant issues were being properly evaluated for reportability on an ongoing basis. Since CR 02-09413 was issued, the licensee had issued 9 initial LERs and one supplement. The inspectors also assessed operability/reportability for a number of CRs, classified as a condition adverse to quality, being reviewed for corrective actions as part of this inspection. No discrepancies were identified. Based on the acceptability of the basic cause, the corrective actions, the extent of condition evaluation, and inspector reviews of additional condition reports, the inspectors concluded that the licensee is properly evaluating issues for operability and reportability.

Reference Material - Condition Report (CR) 02-09314, "Untimely Determination of Reportability" and NRC Inspection Report Number 50-346/02-17, dated December 9, 2002.

March 22, 2004

RAM Item No. - L-91 **Closed: Y**

Date of Letter - 02/10/03

Author - Lochbaum

Description of Issue - Did D-B have sufficient TSP in containment to maintain post-LOCA sump pH > 7 given the large quantity of boric acid already deposited in containment prior to startup from RFO12, and if not, shouldn't this be an LER?

Restart Checklist Item: N/A

Description of Resolution - Davis-Besse did have sufficient TSP in containment to maintain a post-LOCA sump pH > 7.

Reference Material - None.

March 22, 2004

RAM Item No. - L-92 **Closed: Y**

Date of Letter - 02/10/03

Author - Lochbaum

Description of Issue - Looking for leaks in all the wrong places - has the NRC confirmed that the company's NOP/NOT test won't once again miss leaks?

Restart Checklist Item: 2.c

Description of Resolution - The NRC evaluated the licensee's plans for and implementation of the NOP test and concluded that it provided reasonable assurance that there is no pressure boundary leakage of the RCS. In the past, licensee's performed VT-2 inspections during RCS hydro to look for leakage. Because of plant-specific design characteristics, there has been no uniform way to perform effective visual examinations of the RPV head at PWR facilities. Some plants have the head insulation sufficiently offset from the RPV head to permit an effective visual examination. Other plants have the insulation offset from the head but in a contour matching that of the head, requiring special tooling and procedures to perform an effective visual examination. Still other plants have insulation directly adjacent to or attached to the RPV head, potentially requiring the removal of the insulation to permit an effective visual examination. As a result, the NRC has issued Bulletins 2002-001 and 2002-002 to address proper examinations of RPV heads such that the inspections look at the bare metal. This has not always been the case in the past. The licensee has appropriately revised its procedures to address the Bulletins' requests. Documentation of the NRC's review of the licensee's activities associated with the NOP test is in NRC Inspection Report No. 50-346/2003-023, which was issued on December 5, 2003, and included Mr. Lochbaum on distribution.

Reference Material - NRC Inspection Report No. 50-346/2003-023 (ADAMS Accession No. ml033421074).

March 22, 2004

RAM Item No. - L-93 **Closed: Y**

Date of Letter - 02/10/03

Author - Lochbaum

Description of Issue - Has the Davis-Besse PRA been revised to account for reactor vessel damage?

Description of Resolution - The licensee's PRA would not need to be revised to account for reactor vessel damage because the licensee has replaced the reactor vessel head; therefore, no additional increase in initiating events (SLOCA, MLOCA, LLOCA) is necessary for their current PRA model.

Reference Material - None.

March 22, 2004

RAM Item No. - L-94 **Closed: Y**

Date of Letter - 02/10/03

Author - Lochbaum

Description of Issue - The 0350 panel should remain in place until all LLTF issues are resolved and D-B performance indicators are valid and the NRC's inspections have verified adequate performance.

Restart Checklist Item: N/A

Description of Resolution - This issue is identical to item B.6.e in the 2.206 Petition submitted by Congressman Kucinich. As stated in the NRC's proposed Director's Decision response to Item B.6.e of that petition, "if the NRC does approve a restart of the Davis-Besse facility, the NRC's Inspection Manual Chapter 0350, which governs the NRC's Enhanced Oversight Process, specifies that enhanced NRC oversight will continue after restart until such time that the NRC Davis-Besse Oversight Panel determines that the licensee has demonstrated acceptable performance. Post-restart enhanced oversight will not be terminated unless the NRC Davis-Besse Oversight Panel recommends to the appropriate NRC Regional Administrator that the plant be returned to monitoring under the normal Reactor Oversight Process. That Regional Administrator, in consultation with the NRC Director of the Office of Nuclear Reactor Regulation and the Office of the Executive Director for Operations, will decide whether a return to the normal Reactor Oversight Process is warranted.

The recommendation of the NRC Davis-Besse Oversight Panel to return Davis-Besse to the normal Reactor Oversight Process would also provide the basis for the panel's conclusion that the plant can be returned to routine monitoring. The NRC's evaluation process to reach such a conclusion will include the use of an inspection plan that is specifically tailored to the particular circumstances of the Davis-Besse plant. Under that plan, critical licensee performance areas of concern, for example Management and Human Performance, will be inspected. A return of the Davis-Besse facility to the normal Reactor Oversight Process would include an assessment of the plant's performance and a determination of whether significant additional NRC oversight is required in accordance with the normal Reactor Oversight Process guidance.

Additionally, some of the Lessons Learned Task Force's near-term recommendations are already being functionally accomplished through the NRC's enhanced oversight of Davis-Besse. For example, the Lessons Learned Task Force recommendations included development of inspection guidance (a) to ensure that reactor vessel head penetrations nozzles and the reactor pressure vessel head area are periodically reviewed by the NRC during licensee inservice inspections activities and (b) provide for timely periodic inspections of pressurized water reactor boric acid corrosion control programs. The NRC's Restart Checklist for Davis-Besse includes the adequacy of the reactor pressure vessel head replacement and the adequacy of the Davis-Besse Boric Acid Corrosion Management Program as issues that must be satisfactorily addressed before the NRC will consider a plant restart. Thus, for these examples, the issues are being addressed as part of the NRC Davis-Besse Oversight Panel's

activities and, in the short-term, the associated recommendations of the Lessons Learned Task Force will be functionally accomplished even though the NRC's programmatic implementation of the NRC Lessons Learned Task Force recommendations may not be fully implemented at the time a decision regarding restart of the Davis-Besse plant is made."

Reference Material - None.

RAM Item No. - L-95 **Closed: Y**

Date of Letter - 3/8/03

Author - Gault

Description of Issue - NRC should not have allowed DB to operate with hole in vessel; unnecessarily put residents on Lake Erie at risk from a LOCA; and DB should be operated by some other company with "safety-focused" personnel.

Description of Resolution - Letter from J. Dyer to Ms. Gault addressing all issues dated April 14, 2003.

Reference Material - ADAMS Accession No. ml031070170.

RAM Item No. - L-96 **Closed: Y**

Date of Transcript - 07/16/02

Author - Mr. William Bruml's question to 0350 Panel at public mtg.

Description of Issue - Mr. Bruml asked when NRC was going to publish the results of inspections of the RV head. Mr. Grobe mentioned two studies - 1) NRC risk assessment; and 2) detailed analysis being done by RES. Inspection documentation should be out within next month or two.

Description of Resolution - The inspection report addressing the inspection of the head was issued on November 29, 2002 (IR02-07). The NRC risk assessment is attached to the issuance of the preliminary "red" finding, which was issued on February 25, 2003. The detailed analysis being done by research will not be completed before restart. Given the replacement of the reactor vessel head this schedule is acceptable.

Reference Material - Inspection Report 02-07 addressing the RV head is ADAMS Accession No. ml023370100; NRC risk assessment and preliminary "red" letter to licensee is ADAMS Accession No. ml030560426.

March 22, 2004

RAM Item No. - L-97 **Closed: Y**

Date of Transcript - 08/15/02

Author - Mr. Lochbaum's issue presented to 0350 Panel at public mtg.

Description of Issue - Mr. Lochbaum stated that NRC during inspections and PI verifications, should see if there are bonus plans or incentives that might bias licensee's decision making process. Grobe stated he would forward to DIPM.

Description of Resolution - E-mail sent from Grobe to C. Carpenter on April 8, 2003, providing Mr. Lochbaum's statement to DIPM.

Reference Material - None.

RAM Item No. - L-98 **Closed: Y**

Date of Transcript - 08/15/02

Author - Mr. Gunter's question to 0350 Panel at public mtg.

Description of Issue - Mr. Gunter stated that he was concerned with the accuracy and document trail regarding FENOC's root cause analysis of the RPV head degradation. Mr. Gunter said that it seems to raise the question about FENOC's devotion to telling the truth. Mr. Grobe stated that the NRC heard the licensee's position that inaccurate information didn't play a role and that will be part of what we evaluate during our inspection in this building block area.

Description of Resolution - Restart Checklist revised (revision 2) to include an item 4.d, "Completeness and Accuracy of Information."

Reference Material - ADAMS Accession No. ml030290155

March 22, 2004

RAM Item No. - L-99 **Closed: Y**

Date of Transcript - 08/20/02

Author - Mr. Keegan's question to 0350 Panel at public mtg.

Description of Issue - Mr. Keegan wanted specific information on embrittlement and pressurized thermal shock for the reactor at D-B. Mr. Grobe said that we can get you in touch with the right people that can give you more information on pressurized thermal shock.

Description of Resolution - Information provided privately to Mr. Keegan after meeting adjourned.

Reference Material - None.

March 22, 2004

RAM Item No. - L-100 **Closed: Y**

Date of Transcript - 10/16/02

Author - Mr. Douglas's question to 0350 Panel at public mtg.

Description of Issue - Mr. Douglas was asking the NRC to consider a photographic procedure to inspect and document the condition of the RVH. Finally, he said, "I certainly do request that you consider the photographic procedure and be sure that it gets stuck in the paper publically, so that we can have some kind of confidence that this place isn't going to - you know where again." Mr. Grobe answered, "Right. We can do that."

Description of Resolution - Per J. Grobe, this item is complete. Davis-Besse does video examinations of the head.

Reference Material - None.

RAM Item No. - L-101 **Closed: Y**

Date of Transcript - 12/10/02

Author - Mr. Whitcomb's question to 0350 Panel at public mtg.

Description of Issue - Mr. Whitcomb asked why the restart checklist was not part of the presentation. Ms. Lipa stated that his suggestion was a good one and that the NRC would do it in future meetings

Description of Resolution - Subsequent public meetings have included, as appropriate, the restart checklist as slides for discussion.

Reference Material - None.

March 22, 2004

RAM Item No. - L-102 **Closed: Y**

Date of Transcript - 01/14/03

Author - Ms. Lueke's question to 0350 Panel at public mtg.

Description of Issue - During a discussion of safety culture and the safety culture assessment of employees, Ms. Lueke asked whether the appraisal form format will be available to the NRC. Mr. Grobe said that he did know that level of detail could get it for her. Ms. Lueke said Okay.

Description of Resolution - Closed in private discussion after meeting concluded. Ms. Lueke informed that the NRC's Management and Human Performance Inspection Team will have available any records they deem necessary to complete this inspection, including but not limited to the appraisal forms.

Reference Material - None.

RAM Item No. - L-103 **Closed: Y**

Date of Transcript - 01/14/03

Author - Ms. Lueke's question to 0350 Panel at public mtg.

Description of Issue - Ms. Lueke had a copy of the NRC report to Congress re the 1985 event at D-B. She referred to sections on underlying causes and asked about procedures that the licensee put in place to prevent future occurrences and if they were followed through. Mr. Grobe stated that there were six separate root cause assessments in different areas and that they will be made publically available shortly.

Description of Resolution - All six root cause associated reports are publicly available and can be retrieved easily from the NRC's Davis-Besse website.

Reference Material - All documents are available at NRC's Davis-Besse website.

March 22, 2004

RAM Item No. - L-104 **Closed: Y**

Date of Transcript - 01/14/03

Author - Mr. Douglas's question to 0350 Panel at public mtg.

Description of Issue - Mr. Douglas had proposed photographic monitoring techniques in a previous meeting. At this meeting, he restated his proposals, expressed concern that he had not received a response from the NRC. At the end of his presentation, Mr. Douglas requested "...that the NRC stays in operation and stays on top [of] Davis-Besse until they do get these photographic and monitoring systems in." Mr. Grobe responded, "Yea, I think Bill and I are here for the long haul so we'll make sure that the changes are lasting." Mr. Douglas then said that he "...hopes to see and here them [photographic and monitoring system] soon."

Description of Resolution - Per J. Grobe, this item is complete. Davis-Besse does video examinations of the head.

Reference Material - None.

RAM Item No. - L-105 **Closed: Y**

Date of Transcript - 01/14/03

Author - Ms. Muser's question to 0350 Panel at public mtg.

Description of Issue - One of the subjects that Ms. Muser touched upon was high level waste storage. Mr. Grobe said that he could get her a contact that is involved in the Yucca Mountain project.

Description of Resolution - Closed in private discussion after meeting concluded - contact provided.

Reference Material - None.

March 22, 2004

RAM Item No. - L-106 **Closed: Y**

Date of Letter - 06/13/03

Author - Gurdziel (G-22)

Description of Issue - Are licensee's bolting and torquing practices acceptable to the NRC?

Restart Checklist Item: N/A

Description of Resolution - An NRC inspection (Inspection Report 03-15) into work being performed identified several problems with the licensee's practices. Specifically, torquing of bolts was not performed in accordance with procedural steps, or procedures failed to identify the correct torquing amount, making it possible to severely over-torque a bolt and cause its failure. Two non-cited violations were identified and placed into the licensee's corrective action system for resolution. The first violation involved the failure of the procedure to adequately provide torquing guidance associated with installation of the High Pressure Injection Pump Cap screws, and the second involved the failure of plant staff to comply with the procedure that specified the correct torquing of the RTD mechanical joints. Based on these inspection results, the inadequate torquing practices identified were a violation of NRC requirements, and as such, not acceptable to the NRC. The licensee is taking corrective actions to address the concerns.

Reference Material - Inspection Report No. 03-15 (ADAMS Accession No. ml032120360).

March 22, 2004

RAM Item No. - L-107 **Closed: Y**

Date of Letter - 07/31/03

Author - Gurdziel (G-25)

Description of Issue - FENOC methodology to look for leaks on the bottom head is inappropriate. My way is better.

Restart Checklist Item: 2.c

Description of Resolution - The NRC evaluated the licensee's plans for and implementation of the NOP test and concluded that it provided reasonable assurance that there is no pressure boundary leakage of the RCS.
Boric acid in the RCS coolant leaves a recognizable deposit as demonstrated by plants such as Occonee (upper head) and South Texas Project (lower head). In the case of Davis-Besse detailed examination of the heads after the pressure test, including comparison with photos taken before the seven day pressurization were evaluated for any indication of leakage (deposit). No leakage was found. Documentation of the NRC's review of the licensee's activities associated with the NOP test is in NRC Inspection Report No. 50-346/2003-023, which was issued on December 5, 2003.

Reference Material - NRC Inspection Report No. 50-346/2003-023 (ADAMS Accession No. ml033421074).