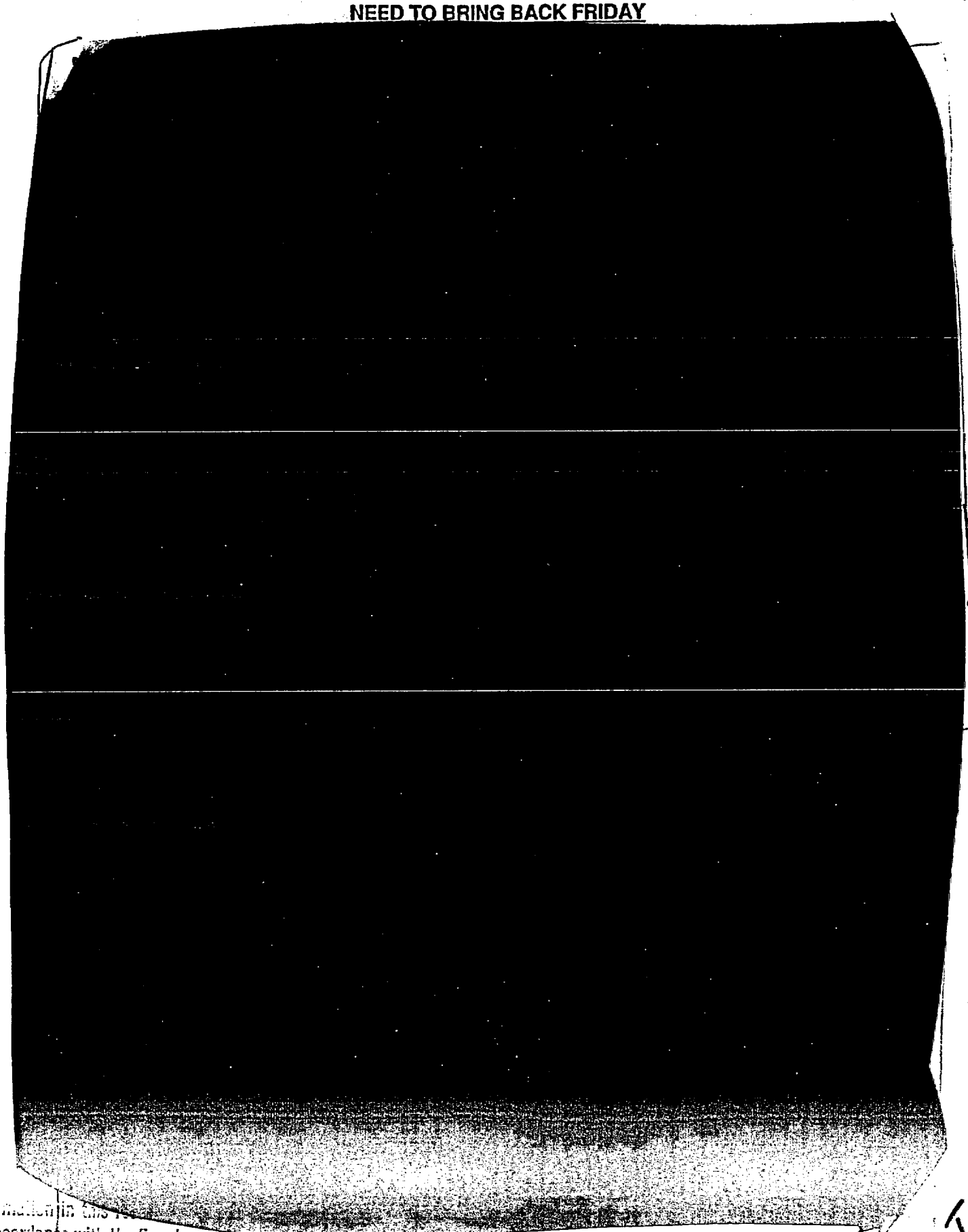
NEED TO BRING BACK FRIDAY



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RAM Item No. - LER-12 and URI-25 **Closed: Y**

Description of Issue - During the SSDI Inspection in 2002, URI-25, Some Small Break Loss of Coolant Accident Sizes Not Analyzed, was identified. Specifically, it addressed concerns with the HPI pump minimum flow and deadhead (lack of flow) conditions (URI-25 and LER-12).

Description of Resolution - Following the questioning during the 2002 NRC SSDI inspection of a potential deadhead condition of the HPI pumps and the adequacy of thermal protection (minimum flow) for the pumps, the licensee performed a study, 86-5022260-00, to determine whether HPI pump operability during post-LOCA sump recirculation could be assured for all break sizes and transient scenarios.

This study identified a range of small break sizes from 0.00206 ft^2 (leak-to-LOCA transition area) to 0.0045 ft^2, which would result in RCS re-pressurization cycles that could continue following HPI pump realignment to the containment emergency sump and closure of the minimum flow recirculation valves. The study concluded that for this newly analyzed range of break sizes, past operability of the HPI pumps was a concern. This was because the re-pressurization cycles would result in a higher containment pressure than the shut-off head of the HPI pumps, resulting in pump dead heading (no flow), when HPI pump suction was from the sump.

Based on the results of the evaluation, several corrective actions were implemented. An additional minimum flow recirculation line was installed during RFO 13 for each HPI pump. For one pump, the line tapped off the previously existing minimum flow line and for the other a completely new recirculation line was installed. For both pumps, the new lines contained two isolation valves and a non-cavitating pressure breakdown orifice and connected to the LPI pump discharge upstream of its respective decay heat cooler for the corresponding safety train. The modification design specified a minimum 35 gpm flow rate (same as that specified for the original recirculation line) for pump protection when aligned to the emergency sump in "piggyback" operation with the DHR pumps. In this lineup, the decay heat coolers would provide cooling for the respective HPI Pumps without loss of sump inventory. Inspector concerns regarding the minimum 35 gpm flow rate were evaluated and resolved through URI-24 (see associated RAM closure form.)

Operator action would be required to open the valves on these additional recirculation lines prior to pump realignment from the BWST to the emergency sump. Because the postulated transient was a very slow developing scenario, the team determined that ample time would be available for operators to take this action. Additionally, the team confirmed that this action did not replace any existing automatic action. The licensee revised the emergency procedures to provide direction on establishing the HPI alternate minimum recirculation flowpath and provided training to the operators on its use.

These corrective actions were sufficient to resolve the concern addressed in the LER. The team identified a NCV of 10 CFR Part 50, Appendix B, Criterion III, having very low safety significance (Green).

Reference Material - NRC Inspection Report 05000346/2003010, Sections 4OA3(3)b.1 and 4OA3.(6)b.2 (ADAMS Accession No. mlo4???); URI 05000346/2002014-01o; and LER 05000346/2003-003-00 and -01.

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

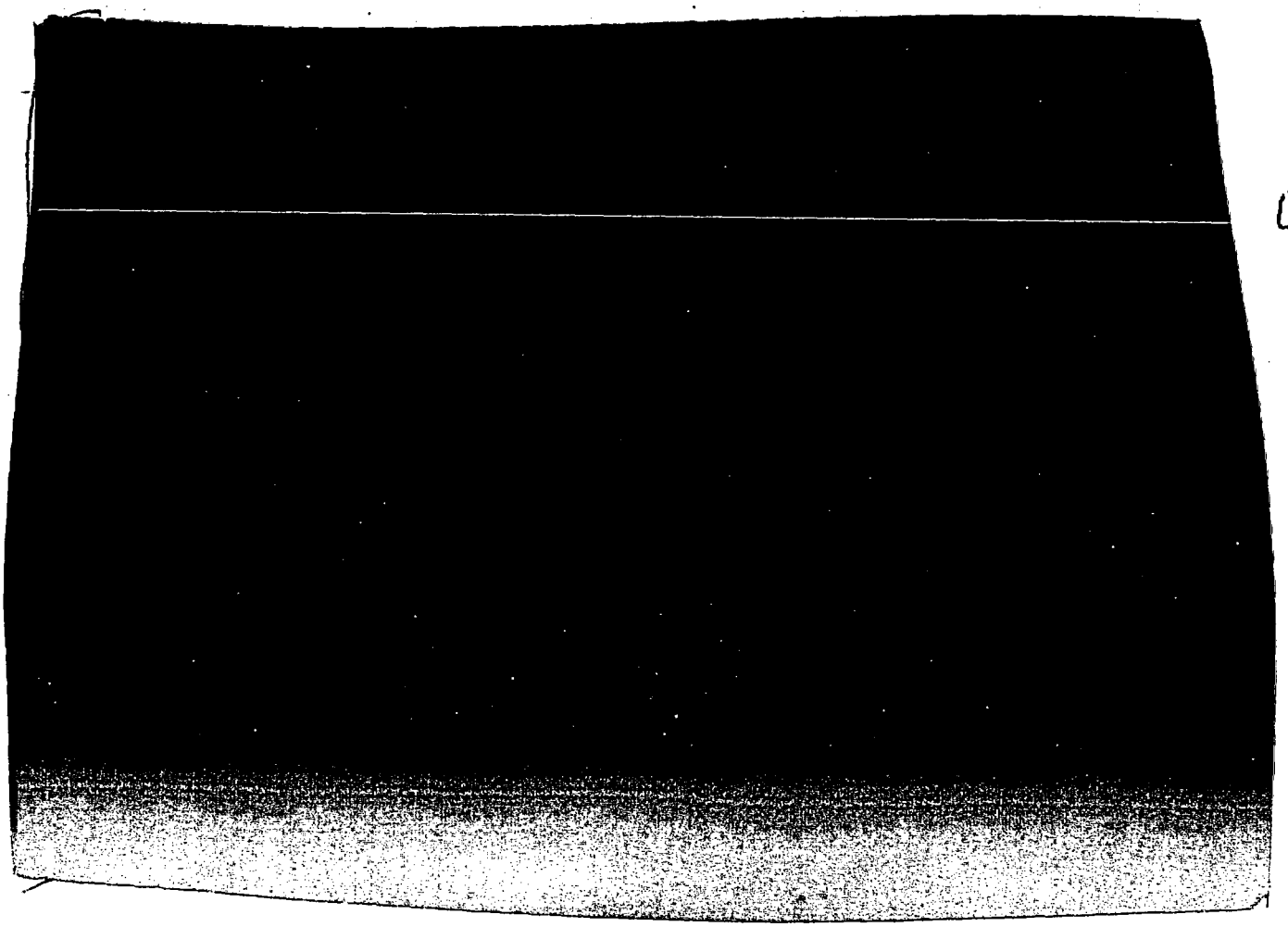
Description of Issue - An NCV in IR 05000346/2002014 was issued during SSDI because there was no analytical basis for setpoint to swap service water system discharge path. The corrective actions taken by the licensee failed to correct the originally identified condition.

Description of Resolution - During the CATI, the team reviewed the evaluation and corrective actions taken for this NCV. The team identified a number of errors and issuse with the analyses performed by the licensee. The team determined that the revised evaluation did not address the violation.

The licensee implemented compensatory measure to ensure that the service water suppled to the safety related loads is not compromised. This action is sufficient for restart.

A violation of 10 CFR Part 50, Appendix B, Criterion III, was issued in NRC Inspection Report 05000346/2003010 since the licensee had not corrected a previous violation and was relying on non-safety-related equipment to perform a safety function under design bases conditions.

Reference Material - NRC Inspection Report 05000346/2003010, Section 4OA3(3)b.11 (ADAMS Accession No. ml04???) and NCV 05000346/2002014-01v.



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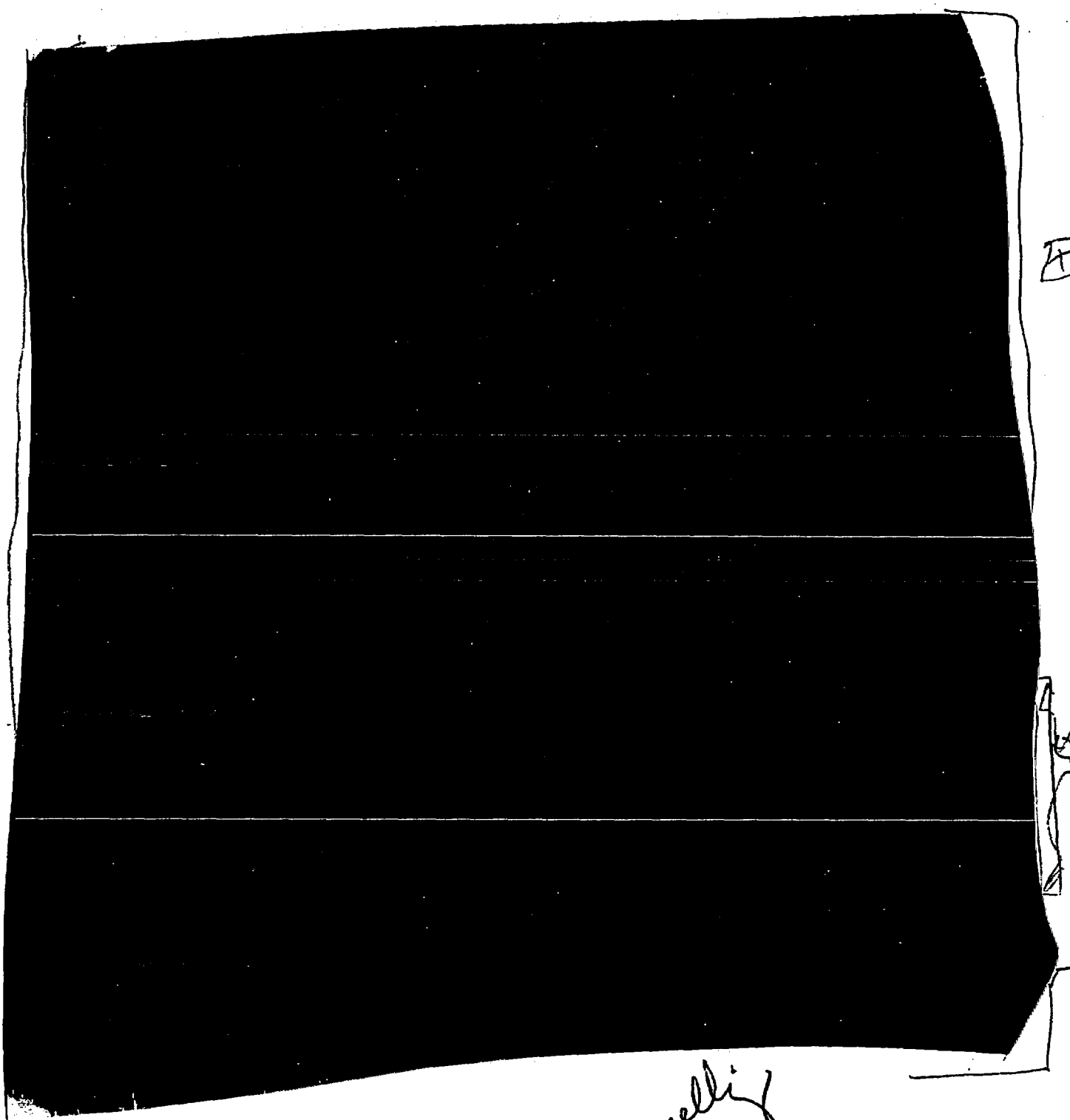


RAM Item No. - URI-26 **Closed: Y**

Description of Issue - The licensee failed to perform an adequate SW flow analysis.

Description of Resolution - The licensee entered the issue into its corrective action program and performed the necessary calculations. The licencee initiated CR 03-03977 to revise the calculations. The team reviewed these calculations, evaluated the issue and identified several

errors in the calculations that did not affect the design function of the system. NCV of 10 CFR Part 50, Appendix B, Criterion III, having very low safety significance (Green) was issued.

Reference Material - NRC Inspection Report 05000346/2003010 (ADAMS Accession No. ml04???) and URI 05000346/2002014-01p.

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

Description of Issue - The licensee failed to perform an adequate SW thermal analysis.

Description of Resolution - The licensee entered the issue into its corrective action program and performed the necessary calculations. The licencee initiated CR 03-03977 to revise the calculations. The team reviewed these calculations, evaluated the issue and identified several errors in the calculations that did not affect the design function of the system. NCV of 10 CFR Part 50, Appendix B, Criterion III, having very low safety significance (Green) was issued.

Reference Material - NRC Inspection Report 05000346/2003010 (ADAMS Accession No. ml04???) and URI 05000346/2002014-01q.

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

Description of Issue - The licensee failed to provide an analysis which addressed the service water valve single failure assumptions mentioned in the updated safety analysis report, specifically dealing with the ultimate heat sink's temperature and level. Specific combination included having design basis low ultimate heat sink levels and the system going into backwash while the system was responding to a design basis accident.

Description of Resolution - The licensee entered the issue in its corrective action program. The team determined that it was unlikely that the SW system would not function during a design basis accident, as there would need to be the unlikely combination of both the "right" single failure along with the maximum temperature or minimum level conditions. Therefore, the team concluded that this issue would not likely result in loss of function per the guidance described in GL 91-18. A NCV of 10 CFR Part 50, Appendix B, Criterion III, having very low safety significance (Green) was issued.

Reference Material - NRC Inspection Report 05000346/2003010 (ADAMS Accession No. ml04???) and URI 05000346/2002014-01r.

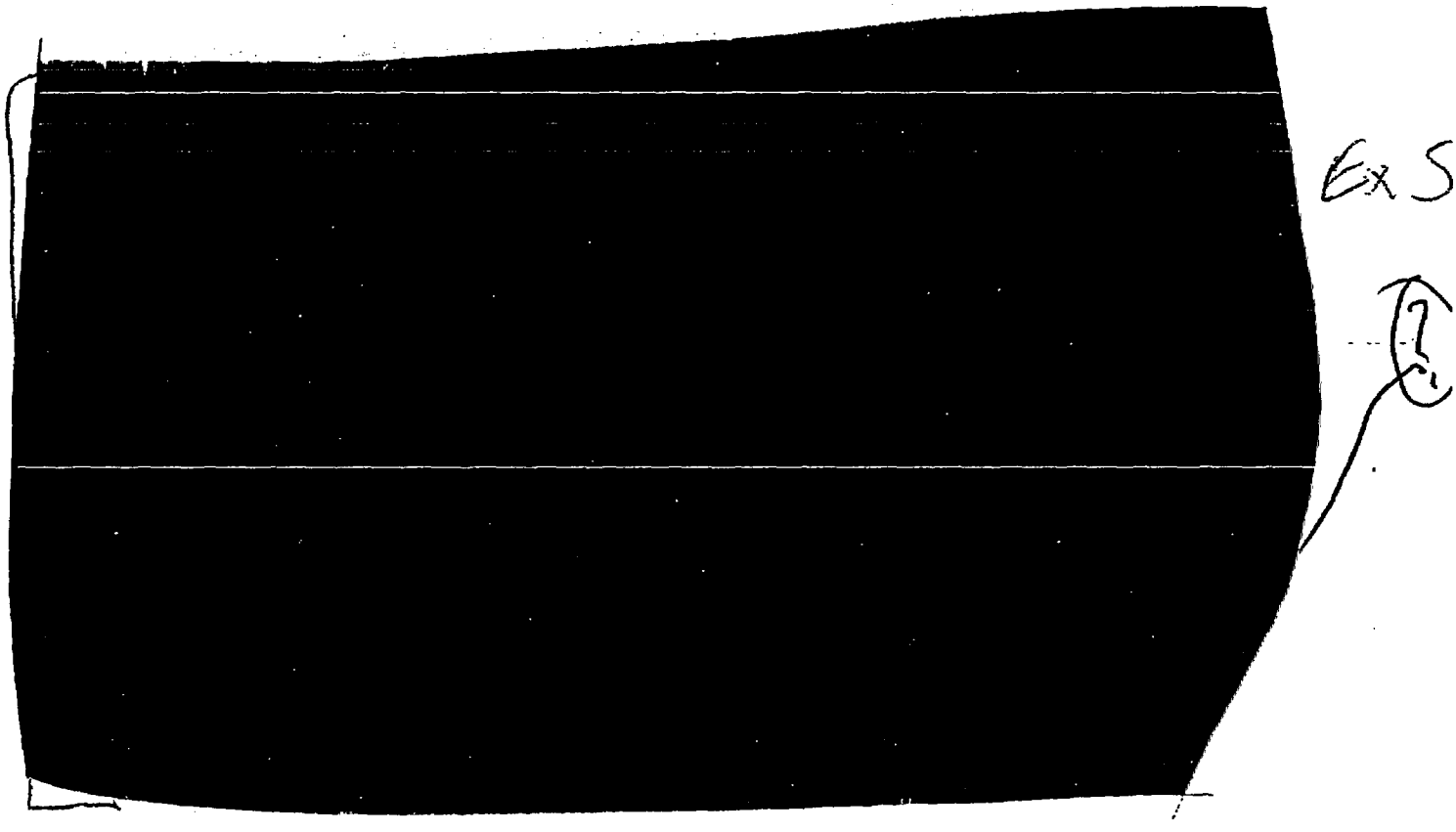
RAM Item No. - URI-29 **Closed: Y**

Description of Issue - The licensee failed to perform a valid service water pump net positive suction head analysis, specifically the licensee's calculations determined that under a certain

combination of design basis conditions pump net positive suction head (NPSH) was not achievable.

Description of Resolution - The licensee entered the issue into its corrective action program and performed the necessary calculations. The licencee initiated CR 03-03977 to revise the calculations. The team reviewed these calculations, evaluated the issue and determined that the system would most likely be able to perform its design function as the inadequate conditions would only exist for short periods of time. Following subsequent analysis and evaluation of the team's finding, the licensee concluded that the SW system had been able to perform its safety function. NCV of 10 CFR Part 50, Appendix B, Criterion III, having very low safety significance (Green) was issued.

Reference Material - NRC Inspection Report 05000346/2003010 (ADAMS Accession No. ml04???) and URI 05000346/2002014-01s.



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

Description of Issue - Issue on whether stem-to-disc separation of SW valve SW-82 was credible and whether stem-to-disc separation was required to be assumed as part of a passive failure analysis.

Description of Resolution - The team determined that valve SW82 was a butterfly valve. Even if stem-to-disc separation occurred, it was extremely unlikely that flow would be blocked.

Therefore, the team determined that this failure mode was not credible and did not need to be considered as part of a passive failure analysis. This item is closed.

Reference Material - NRC Inspection Report 05000346/2003010 (ADAMS Accession No. ml04???) and URI 05000346/2002014-05.

RAM Item No. - URI-42 **[Should close as part of L-90?]** **Closed: Y**

Description of Issue - Inadequate Implementation of the Corrective Action Process Which Led to Not Identifying a Potentially Reportable Issue Regarding Containment Air Coolers

Description of Resolution - This issue was reviewed and LER 2002-008 was issued on December 31, 2002. NOP-LP-2001 was revised clarifying the requirement to perform a reportability review. A corrective action was initiated to review all significant Condition Reports issued from January 1, 2002, to November 13, 2002, to ensure adequacy of reportability reviews.

This item is closed. Also see related closure documentation for L-90 below. L-90 was previously closed as documented in Panel meetings on 10/9/03. However, the CATI also reviewed L-90 and provided closure documentation at that time since it was related to this URI.

Reference Material - CR 02-09314, "Untimely Determination of Report ability"; Standing Order No. 02-015; Past Operability/Reportability Reviews; LER 2002-008; NOP-LP-2001, Condition Report Process, Revision 4, march 1, 2003.

---THE FOLLOWING ITEM IS ADDED HERE FOR CLARIFICATION - (L-90) PREVIOUSLY CLOSED AS STATED ABOVE. ---

RAM Item No. - L-90 **Closed: Y**
URI-42 **Closed: Y**

Description of Issue - "Reportability Assessments." (L-90) 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.

Description of Issue - "Inadequate Implementation of the Corrective Action Process Which Led to Not Identifying a Potentially Reportable Issue Regarding the Containment Air Coolers." (URI-42). CR 0 2-02943 was written on July 2, 2002, as a collective significance review for 13 CRs involving boric acid corrosion of the containment air coolers. During processing, the CR was determined to require additional review to determine past operability and reportability. The LER rule (10CFR50.73) requires submittal on an LER within 60 days after discovery of a reportable event and states that evaluations of past operability/reportability should be made in a timely manner. The resident inspector identified on November 13, 2002, more than 120 days later, that the evaluation had not been completed. CR 02-09314 was written to document this situation.

Description of Resolution - Immediate corrective actions were specified to submit a voluntary LER and to implement changes to the existing operability and reportability process. Corrective actions were also specified to review the issue itself for reportability and to conduct an extent of condition review for CRs classified as significant conditions adverse to quality issued between January 1, 2002 and November 13, 2002 (date CR 02-09314 was issued). A basic cause analysis was specified and subsequently completed on January 18, 2003. The basic cause identified problems with work practices, document usage, verbal communications, work organization/planning, and supervisory methods. Corrective actions were specified to address these issues, as well as to replace the temporary change to the operability and reportability process with a permanent change. The inspectors reviewed the basic cause and concluded that it properly characterized the issue and the root and contributing causes.

The inspectors reviewed the corrective actions and considered them adequate and appropriate to the circumstances, including the classification as restart or post-restart. All restart-related corrective actions were verified to be complete including submission of the voluntary LER and the subsequent LER supplement, the extent of condition review, training for regulatory affairs staff involved in reportability determinations, and the permanent change to the operability and reportability process.

The extent of condition review was a re-examination of 101 significant condition reports issued between January 1, 2002 and November 13, 2002. The extent of condition review was specified on December 31, 2002 and completed on July 8, 2003. Of the 101 CRs re-examined, one additional CR (02-06702), related to the potential for inadequate recirculation flow for the high pressure injection pump during a loss of coolant accident, was determined to be reportable. Consequently, LER 2003-003 was issued on June 10, 2003. The inspectors sampled several of the re-examined CRs to assess the accuracy of the extent of condition review; no discrepancies were identified.

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 has issued 9 initial LERs, one supplement, is preparing seven more supplements, and is evaluating nine additional LERs or supplements. 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 - CR 02-09314, "Untimely Determination of Reportability"; Basic Cause Analysis Report, "Failure to Evaluate Containment Air Cooler 10CFR50.73 Reportability in a Timely Manner"; Regulatory Affairs Operability/Reportability Status; CR 02-02943, "Containment Air Coolers"; Licensee Event Report 2002-08-00, "Containment Air Coolers collective Significance of Degraded Conditions," December 31, 2002; Licensee Event Report 2002-08-01, "Containment Air Coolers collective Significance of Degraded Conditions," May 6, 2003; NRC Inspection Report 50-346-02-17 (ADAMS Accession No. ml03???).

NEW FOR FRIDAY

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

Description of Issue - [LER 50-346-2003-006;Potential Errors in Analysis of Block Walls Regarding HELB Differential Pressure and Seismic Events; dated July 21, 2003; Event Date May 21, 2003.] The licensee, in the process of reviewing calculations associated with Davis Besse Auxiliary Building Structural Analysis, noted that a pressure caused by a high energy line break in room 227(see attached diagram labeled figure 5 - room 227 is a corridor/passageway on the 565' elevation of the Auxiliary Building) would also cause a pressure surge in the connected and right angle corridor labeled 241. In previous analyses room 227 and room 241 were treated as not open to each other. When the analysis added this pressure surge in room 241 to seismic loads, it was determined that, with the additional differential pressure across block wall 2257, the wall would not remain operable. Wall 2257 is on wall that forms room 240 which is the Boric Acid Addition Tank Room. Failure of the wall could adversely impact 2 Component Cooling Water Valves, Service Water piping to Containment Air Cooler 1, and the Boric Acid Addition System and thus affected system required by Technical Specifications.

The discrepancies in the calculation, which did not account for free communication between room 227 and 241, were introduced, as identified by the licensee, into the analyses prepared in support of the licensee's final response to IE Bulletin 80-11 [MASONRY WALL DESIGN] dated May 8, 1980. The final submittal to the NRC was sent out on December 17, 1985.

Description of Resolution - The licensee initiated and implemented a design modification, ECR 03-0297. The modification was completed in August, 2003. The design change modified door 209 to open with a differential pressure low enough to preclude a differential pressure across wall 2257 that would fail the wall. The door vents pressure in room/corridor 241 to room 240 thus lowering the differential pressure.

The resolution of the issues with wall 2257 was part of a larger effort that included reviewing assumptions and performing analyses to substantiate the existing design. That effort has not been incorporated into the applicable masonry wall calculation packages and is now (as of February 12, 2004) scheduled to be complete by December 15, 2004 (CR 03-02910, CA 3). Since the calculation packages have to be revised, the licensee has an Operability Evaluation 03-0015, that will be closed when the calculation packages are updated

The discrepancies in the calculations associated with wall 2257 occurred in the early 1980s. The programs and people in place then are significantly different than those in place now. The LER will be closed in IR 50-346-2004-002.

Reference Material - LER 50-346-2003-006; CR 03-02910; Root Cause Analysis Report for CR 03-02910 (Analysis of Masonry Walls) and CR 03-03937 (Masonry Wall Failure); Wall and room diagram from Root Cause Analysis Report Masonry Wall.

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

Description of Issue - LER 50-346-2003-014; Steam Feedwater Rupture Controls System Re-energizizes in a Blocked Condition; dated December 16, 2003; Event Date October 17, 2003. The licensee has a Steam Feedwater Rupture Control System (SFRCS) that is designed to isolate

feedwater to a ruptured steam generator and to provide feedwater to the non-faulted generator. The system is a 2 channel actuation system that does the requisite functions with a 1 out of 2 logic. Each actuation channel is composed of 2 logic channels (or a total of 4 channels) both of which must provide a signal for actuation (2 out of 2 for the logic channels to actuate an actuation channel) . In each actuation channel 1 of the logic channels is powered by interruptible power (backed up by power from the emergency diesel) and one from non-interruptible (battery backup) power. The system incorporates design features to block logic signals to accommodate normal plant heatup and cooldown. Originally all 4 logic channels were powered by non-interruptible power until the system was modified in 1988.

In October, 2003, during work on the SFRCS which required de-energizing and energizing various portions of the system, the licensee identified that upon re-powering of logic channels they sometimes re-energized with the logic, that indicated a ruptured generator, blocked although the system design did incorporate circuits that were to ensure that the circuits re-energized in a normal state (unblocked). If a steam line break were to occur, followed by a loss of offsite power, and if the susceptible logic circuits re-energized in a blocked condition, it would be possible to continue to feed feedwater to a steam generator that was ruptured.

The issue was also indicative of a lack of rigor in the engineering package that developed the modification in 1988 and a lack of rigor in post modification testing that potentially could have identified the issue. Because of the variability in the channel block being applied it was possible that a post modification testing that tested the re-energization of the logic channels might not have identified the design.

Description of Resolution - The initial event was described in IR 50-346/2003-022. The licensee initiated various condition reports to track the event including CR 03-08917 through which a root cause was initiated and a root cause report documented. In that report the licensee identified, and it did in LER 50-346-2003-014, that because of per missives and other design features this design deficiency could permit 1 faulted steam generator to continue to be fed after a break followed by a loss of offsite power. This effects from such a result was an analyzed condition as reported in Davis-Besse USAR Section 3.6.2.7.1.6. However, because of the potential for the blocking to occur because of the design, single failure design criteria is not met. Additionally, again because of the potential for design caused channel failure, 1 channel of SFRCS was inoperable since implementation of the design change in 1988. The regulatory aspects of this will be documented in IR 50-346/2004-006.

The licensee developed and implemented a design change (ECP 03-0569-00) to correct the SFRCS logic to prevent blocking upon restoration of power. Review of this modification was documented in IR 50-346/2003-025. This fixed the physical discrepancy.

As reported in the Root Cause to CR 03-08917, this modification was designed and tested in the late 1980s. The programs and people in place then are significantly different than those in place now.

Reference Material - IR 50-346/2003-022 (ADAMS Accession No. ml03???); IR 50-346/2003-025 (ADAMS Accession No. ml03???); Davis-Besse USAR Section 3.6.2.7.1.6; LER 50-346-2003-014; CR 03-08917.