

March 31, 2003

MEMORANDUM TO: Davis-Besse Nuclear Power Station IMC 0350 Panel

FROM: John A. Grobe, Chairman, Davis-Besse Oversight Panel */RA/*

SUBJECT: MINUTES OF INTERNAL MEETING OF THE DAVIS-BESSE
OVERSIGHT PANEL

The implementation of the IMC 0350 process for the Davis-Besse Nuclear Power Station was announced on April 29, 2002. An internal panel meeting was held on March 14, 2003. Attached for your information are the minutes from the internal meeting of the Davis-Besse Oversight Panel, the Corrective Action Implementation Team Inspection Plan and the "Open" Action Items List.

Attachments: As stated

cc w/att: H. Nieh, OEDO
J. Dyer, RIII
J. Caldwell, RIII
K. Coyne, NRR
D. Thatcher, NRR
DB0350

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OFFICE	RIII		RIII		RIII		
NAME	D.Passehl/klg		<i>/RA DPassehl Acting for/CLipa</i>		JGrobe		
DATE	03/31/03		03/31/03		03/31/03		

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MEETING MINUTES: Internal IMC 0350 Oversight Panel Meeting
Davis-Besse Nuclear Power Station

DATE: March 14, 2003

TIME: 9:00 a.m. Central

ATTENDEES:

J. Grobe	J. Hopkins	M. Phillips
C. Lipa	D. Passehl	R. Gardner
C. Thomas		

Agenda Items:

1. Discuss Corrective Action Team Inspection Plan

Z. Falevits presented the Corrective Action Team Inspection Plan. The Panel approved the plan with clarification of Objective 10. The approved plan is attached to these minutes.

2. Plant Status and Inspector Insights

C. Thomas provided a briefing on current plant activities.

3. Discuss Potential Concern Regarding NRC's Follow-up of Post-restart Items

The panel discussed a concern raised by a member of the NRR staff regarding tracking of corrective action items classified as "post-restart." The Panel determined that the follow-up of items for post-restart is adequately addressed with existing NRC programs and processes. Also, the Panel previously directed that a listing of issues be maintained for consideration at some future time when the Panel is terminated.

5. Discuss Action Items

The Panel discussed the list of "open" action items. No action items were closed.

6. Discussion of Licensing Issues and Actions

J. Hopkins discussed the status of licensing issues and actions. No new items were identified.

7. Discuss Items for Licensee Weekly Calls

The Panel discussed discussion topics for the next weekly call with the licensee.

8. Discuss/Update Milestones and Commitments

The Panel reviewed and discussed upcoming milestones and commitments. No new items were identified.

Item Number	Action Item (Date generated)	Assigned to	Comments
24a	Discuss making information related to HQ/licensee calls publicly available	Panel	<p>Discuss by June 30, after safety significance assessment complete; 6/27 - Invite Bateman to panel mtg. To discuss what else is needed to closeout the CAL (i.e. quarantine plan); 7/2 - NRR not yet ready to discuss; 7/16 - See if procedures have changed on CAL closeout - does JD need to send letter?; 7/18 - Discussed - is there an applicable regional procedure?; 8/6 - Discussed. Need to determine the final approach on the core removed from the head and the final approach on the head before the quarantine can be lifted; 8/22 - Revisit action item after letter sent to licensee confirming plans with old vessel head (head may be onsite longer than originally anticipated); 8/29 - Memo to be sent to Region, with a letter to go out next week; 10/01- Discussed.</p> <p>1) Conduct NRC staff survey-due 10/7 2)Memo to NRR - due 10/11 3) Region to issue letter; 11/07- Letter required from NRR on head quarantine status; 11/19 - Letter in draft; 01/03 - A. Mendiola to look at phone conference writeups on quarantine decision making to determine if they can be released to the public; 01/07 - discussed; 01/21 - discussed; 01/31- A. Mendiola's action; 02/11 - Completion of Licensee Phase 3 sampling plan required; 02/21 - 17.5 Rem to cut samples, Less samples may be required</p>

Item Number	Action Item (Date generated)	Assigned to	Comments
54a	Review TSP amendment and advise the panel on the need for a TIA on Davis-Besse (7/2)	D. Pickett	<p>7/9 - Discussed. Will wait for response from licensee; 7/16 - Discussed - added action item 54b; 8/6 - Sent to the licensee on 7/22 and a response is due by 8/22; 8/22 - Discussed - need to check if response has been received; 8/27 - Received response - DRS is reviewing - will fax to NRR for 54b; 8/29 - Discussed, DRS report of response to be issued to panel prior to item 54b; 10/1-Discussed. DRS coordinating with NRR 11/07-Discussed - On hold for draft with specific information; 12/10 - B. Dean believed B. Bateman thought a calculation for sufficient volume of TSP was completed to technical specification value. However questions whether the calculation was to technical specification or actual TSP level remain; 01/03 - Item under NRR review. Calculation completion expected on Jan 17. Allegation issue in RIII domain; 01/07 - Allegation Item #3 under NRR Review for Resolution; 01/21 - Item #3 is under Region III control for final letter, holding for NRR input; 02/11 - Writeup for NRR input provided 4 answers, going back to reviewer to ensure specific tasking is clear to answer allegation concerns. Action item 54c created; 02/21 - Allegation at 242 day mark. Effective expression of due date required</p>
54c	In relation to action item 54a - Assess method to ensure Technical Specifications are adequate for a cycle, administrative controls vs. amending technical specifications (02/11)	A. Mendiola	02/11 - Address first meeting in March

Item Number	Action Item (Date generated)	Assigned to	Comments
73	Send feedback form on IMC 0350 procedure to IIPB (8/6)	Lipa Mendiola	8/6 - Generate feedback after panel meetings reduced to once per week; 8/29 - Discussed - no change; 10/1 - Discussed; 11/7 - D Passehl sent email to C Carpenter and D Coe indicating that we would be able to perform a review of the draft IMC 0350 during the first quarter of 2003; 12/3- discussed; 01/03 - 2 parts, short part- C. Lipa with P. Harris, long part- B. Dean; 01/07 - 2 nd larger response will require meeting between all parties; 01/21 - Communications with P. Harris; 01/31-Meeting with P. Harris on Feb 4; 02/11 - Many concerns identified by the panel for inclusion; 02/21 - July 1 due date for larger input.
97	Bulletins 2002-01 and 2002-02 response and acceptance (9/5)	NRR	11/07 - Discussed, further research and discussion required; 01/07 - RAI response expected Mid February; 01/31- On track; 02/11 - New Orders will supercede BL2002-01 and BL2002-02 responses with the exception of the BL2002-01 Boric Acid Corrosion program information request; 02/21 - Licensee RAI response delayed. Both Order and BL2002-01 Boric Acid Corrosion program responses to be tracked as RAM items.
126	Review Davis-Besse/Vessel Head Degradation web site content for ease of use by the public. (11/07)	Strasma	02/11 - Checked, but revisiting item; 02/21 - Web site being reassessed.

Item Number	Action Item (Date generated)	Assigned to	Comments
127	Decision of the extent of the needs for resolution of the technical root cause (11/19)	W. Dean	12/10 - Completion date requested; 12/19 - Discussed - Est. delivery Jan. 31 st , put in Jan-Feb report 03-02; 01/31 - On track; 02/21 - J. Hopkins has the review. Through comprehensive review, A. Hiser determined OI concerns did not effect the technical root cause. Attachment of Technical Root Cause Review on next Inspection Report
132	Consolidate RAM (12/19)	C.Lipa/ A.Mendiola	Due Fri 1/17; 01/31 - Item open; 02/11 - working; 02/21 - to determine the need for ONE list.
133	12/29 Taping of debate	J.Collins/ D.Simpkins	01/03 - Licensee to deliver tape to J. Strasma; 02/24 - Tape sent
136	NRR acceptance of NOP criteria and method (01/03)	W. Dean	01/07 - Item discussed. Meeting summary of November 26, 2002 meeting has notation of NRR staff impressions of test plan. Once drafted, issue will be surveyed to staff to determine if consensus is correct; 01/21 - Meeting summary to discuss Flus System, Test agreement, and future inspections; 1/31 - T. Chan fwd to J. Hopkins; 2/11 - J. Jacobson questions need to be folded in (chem-wipes); 2/21 - Polling of staff discussed; 2/24 - Polling of staff by March 7
138	Evaluate the effectiveness of the Comm Plan (01/07)	A. Mendiola, C. Lipa	01/31 - Ongoing; 02/21 - New EDO Comm Plan for Crisis Update, A. Mendiola to review for inclusion.
143	Prepare a special inspection plan for the NOP test. (01/09)	J. Jacobson	02/21 - date to be determined
144	Prepare a special inspection plan for the corrective action team inspection. (01/09)	D. Hills	01/31 - Working Z. Falevits and R. Gardner; 02/21 - date to be determined; 03/04 - plan discussed and comments to be incorporated; 03/14 - Closed.

Item Number	Action Item (Date generated)	Assigned to	Comments
145	Prepare a special inspection plan for the restart readiness team inspection. (01/09)	D. Passehl	02/21 - date to be determined
147	Generate a list of items to consider after restart as well as transition back to the normal 0350 when terminating the 0350 Panel. The items should include plans to augment inspection of corrective actions, inservice inspection, and safety culture monitoring. (01/09)	D. Passehl	01/31 - working; 02/11 - Include dates and deadlines to Manual Chapter 0350 restart inspections planner
149	SRI to coordinate with GWright inspection of corrective actions that have been completed by the resident staff. The intent is to find ways to allow GWright's inspection to take credit for what the resident staff already accomplished. (01/09)	S. Thomas	01/31 - open; 02/11 - Documented items in Resident Inspection Report; 02/21 - Good communications noted; Documentation in IR03-02
150	SBurgess to develop a position paper on the state of plant risk when the plant attains Mode 4 for the first time. The purpose is to support NRC scheduling of major inspections until closer to Mode 2. (01/09)	S. Burgess	
151	Develop a plan to assess the safety culture at the plant to close Restart Checklist Item 4.b, effectiveness of corrective actions. Discuss at next 0350 internal Panel meeting. (01/09)	G. Wright	

Item Number	Action Item (Date generated)	Assigned to	Comments
154	Marty has action to followup by 1/21 with licensee to understand licensee's actions to address common mode failure issues (i.e., topical issues) and brief Panel. Then develop inspection plan to address topical issues. (01/09)	M. Farber	02/21 - Date to be determined
156	Read Generic Safety Issue-191, "Assessment of Debris Accumulation on PWR Sump Pump Performance" (01/09)	J. Hopkins	01/21 - Determine status of GSI-191; 02/21 - Check GL98-04 response on coatings. Draft GL and Draft Reg Guide needs review for DB relevance; 02/24 - Request Response Review and Program Implementation to GL98-04; 03/04 - activity to be reassigned to Reactor Engineer who will close sump LER
158	In Ken O'Brien's programmatic inspection plan, add to the summary page the addition of Restart Checklist Item 3.i, Process for Ensuring Completeness and Accuracy of Required Records and Submittals to the NRC, and deletion of Item 3.h, Radiation Protection Program. (01/09)	D. Hills/ J. Jacobson	02/25 - Plan for Programs, part 2 brought to panel - comments to be incorporated.
162	Modified Containment Walkdown List assessment to look into effects on ILRT and NOP/NOT tests. (01/21)	P. Lougheed	02/21 - Factor into ILRT plan
163	Flag Allegations requiring action prior to restart (01/21)	M. Phillips	02/11 - All of them require action. Resolve with one letter including Item 164; 02/21 - Develop criteria for Allegations considered Restart Items. Criteria needs Panel approval.

Item Number	Action Item (Date generated)	Assigned to	Comments
164	Discuss the need for a Chilling Effect Letter with Bruce Berson (01/21)	M. Phillips	01/31 - Pre-work and then ARB; 02/11 - Resolve with one letter including Item 163; 02/21 - Draft letter with C. Lipa, emailed to Panel for review;
166	Once DRS has developed a draft CY-2004 baseline inspection schedule for Davis-Besse (in conjunction with the upcoming regional inspection planning meeting), DRS will present this to the 0350 panel for review. (01/31)	Panel	02/11 - currently in planning; 02/21 - inspection schedule letter due as soon as possible; 03/04 - in final
172	Create a schedule letter to replace/notify that annual assessment letter and end of cycle public meetings are not occurring (02/11)		02/11 - Panel determined that Annual Assessment letter and End of Cycle public meetings not occurring.
173	Prepare an OSHA MOU letter based on email dated 2/6 from Bilik (2/18)	S.Thomas	02/21 - D. Simpkins working
174	Review 2/4 transcript for Mr. Witt's recommendations (2/18)	R. Lickus	
175	LER licensee commitment on Containment Air Cooler Supplement for 01/31/03 (02/21)	J. Hopkins	02/21 - Attempt to get by end of February; 03/04 - Licensee wrote CR to address missed commitment
176	Determine which inspection will cover containment coatings (03/04)	C. Lipa	

Item Number	Action Item (Date generated)	Assigned to	Comments
177	Research IMC0620 and determine what agency policy re: placing inspection plans on ADAMS, including when (e.g., before or after conduct of inspection) does the plan need to be posted. (03/04)	D. Passehl	
178	Determine the type of backlog assessment that will be performed and by whom. Two attributes need to be considered: (1) the capability of the licensee to manage the backlog in an operating environment; and (2) the impact of the backlog on equipment reliability. (03/04)	C. Lipa	
179	Provide answer to questions and document in next inspection report: 1) Did NRC's O350 Panel review FirstEnergy's analysis to forego inspection and testing of two of the four reactor coolant pumps to assure compliance with technical specifications and regulatory requirements? (RAM Item E-23) 2) If so, what were the NRC findings? (RAM Item E-24) (03/04)	S. Thomas	
180	Draft a memo to NRR (Tad Marsh) to include in response to AMS RIII-03-0014 (Kucinich Petition) that RIII reviewed the petition and there are no new technical issues. (03/04)	D. Passehl	

INSPECTION PLAN DETAILS

I. Inspectors

Z. Falevits, Team Leader
M. Farber, Assistant Team Leader
P. Lougheed, Senior Reactor Engineer
A. Walker, Senior Reactor Engineer
J. Panchison, Mechanical, Consultant
W. Sherbin, Mechanical, Consultant
F. Baxter, Electrical, Consultant
W. Bennett, Corrective Action, Consultant

II Detailed Inspection Schedule

Preparation and Inspection Activities

Team Leader Preparation: March 3-14, 2003

Team Inspection Preparation at Region III offices: March 10-14, 2003

Entrance Meeting: March 17, 2003

On-site Inspection Weeks: March 17-21, March 31 to April 4 and April 14-18, 2003

Exit Meeting: April 18, 2003

Licensee Contacts

Regulatory Affairs: Joe Sturdevant
Corrective Action: David Gudger

Inspection Documentation

Inputs Due: April 25, 2003

Draft Completed: May 7, 2003

Management Review and Approval Completed (target): May 28, 2003

An inspection report must be issued before June 2, 2003 (45 days from the exit)

III Lead Inspector Preparation Activities

Information Requests

As part of the inspection preparation, the team leader listed selected corrective action documents in tables below. The team will select the documents to be reviewed. In addition, the team leader will request the required information from the licensee and will ensure that the necessary information be conveyed to the inspection team.

If during the preparation week, additional information is determined to be necessary, please inform the team leader.

IV Team Preparation Activities

Review of Material

Each team member will review the licensee administrative procedures that control the identification, evaluation, and resolution of problems. These documents will be reviewed

to provide sufficient knowledge of the licensee's revised corrective action program and process, as necessary to conduct an effective and efficient inspection.

Each team member will review documentation on licensee efforts to identify, resolve and prevent structure, system, and component performance problems through performance monitoring, root cause analysis, cause determination, and corrective action to meet the monitoring requirements of the maintenance rule (10 CFR 50.65).

Preparation Meetings

A team meeting will be held Monday, March 10, 2003, at 1:00pm. In this team meeting, the team leader will discuss the inspection plan and distribute available information provided by the licensee and specific inspector items for review and follow-up. Additionally, during this meeting, the team leader will go over inspection logistics and answer team questions.

Over the next several days, each inspector, including the team leader shall review the provided documentation and select additional corrective action items to be reviewed. Also, each inspector will become familiar with the requirements of the applicable NRC IPs.

Requests for Additional Information

As soon as possible, but no later than noon on March 12, 2003, team members should provide to the team leader a list of any additional information and/or documents they want to have readily available on the first day of the inspection. The team leader will coordinate with the team members to ensure there is no duplication of efforts.

Selection of Specific Items for Review

The samples chosen for review should include a range of issues including:

1. Licensee identified issues (including issues identified during audits or self assessments);
2. NRC identified issues;
3. Issues identified through NRC generic communications;
4. Issues identified through industry operating experience exchange mechanisms (including Part 21 reports, NSSS vendor reports, EPRI reports, experience reports from similar facilities, LERs);
5. Specific or cross cutting issues identified by safety review committees or other management oversight mechanisms;
6. Issues identified through employee concerns programs

V. Inspection Objectives

The main objectives of the Corrective Action Team Inspection (CATI) are:

- (1) To determine if the corrective action process at Davis Besse is being effectively implemented to identify risk-significant conditions adverse to quality and if appropriate corrective action is taken to prevent recurrence of identified problems.
- (2) To determine if licensee's identified problems in risk-significant systems were evaluated using a systematic method(s) to identify the correct root cause(s) and contributing cause(s).
- (3) To evaluate licensee's implementation of the corrective action program to address identified issues including determination of root cause(s), apparent cause(s), potential common cause(s), and extent of condition evaluation.
- (4) To review a sample of Restart corrective action items to determine if the corrective action items required to be accomplished prior to plant restart have been correctly characterized and actions had been completed in accordance with licensee and regulatory requirements.
- (5) To review a sample of Post Restart corrective action items to determine if they were properly classified to be addressed after restart.
- (6) To evaluate the licensee's effectiveness in assessing and correcting the risk-significant issues identified during the System Health Assurance/Readiness (SHRR, LIR and SFVP) Reviews.
- (7) To determine if the prioritization and schedule established by the licensee for implementing and completing the corrective actions is adequate and timely.
- (8) To accomplish applicable inspection activities required by Inspection Procedures 71152 and 93812.
- (9) To examine adequacy of the licensee's corrective actions taken and proposed to address findings documented in selected LERs, and NRC inspection reports (URIs and NCVs) and determine if they are ready for closure.
- (10) To characterize any adverse trends or patterns including corrective actions that the licensee is taking, the status of program, or any additional trends that may not have been identified by the licensee.
- (11) To determine how the licensee measures effectiveness of the corrective action process
- (12) To review the assigned items (CRs, URIs, NCVs, LERs etc..) and focus on adequacy of licensee's assessment to identify the correct root/apparent cause(s) and the effectiveness of the corrective action process in addressing these causes, including extent of condition.
- (13) To verify whether the licensee is reporting, in a timely manner, conditions that warrant 50.73 LERs or are they in violation of 50.73? (RAM item L-90)
- (14) To verify that the licensee is identifying risk-significant issues at an appropriate threshold and entering them in the corrective action program.

- (15) To review audits and self-assessments completed and planned to assess Corrective Action implementation.
- (16) Pay particular attention to repeat issues or identified problems that need rework. Are these issues being trended ?
- (17) To ensure that licensee performance goals are not in conflict with the actions needed to correct performance issues and are in alignment throughout the organization.

General Guidance for Review of Condition Reports

Review each condition report against the following performance attributes:

- (1) Did the licensee completely and accurately identify the problem in a timely manner, commensurate with its significance and ease of discovery?
- (2) Did the licensee properly and adequately evaluate and resolve of any operability or reportability issues?
- (3) Did the licensee consider the extent of condition, the generic implications, whether there might be a common cause, or if there have been previous occurrences? Assess the validity of the licensee's conclusions regarding extent of condition, consideration should be given to whether multiple risk significant design or performance issues have been identified.
- (4) Did the licensee identify significant negative trends associated with human or equipment performance?
- (5) Did the licensee classify and prioritize the resolution of the problem, commensurate with its safety significance?
- (6) For any significant conditions adverse to quality, did the licensee identify the root and contributing causes of the problem?
- (7) Did the licensee identify appropriately focused corrective actions to correct the problem? For significant conditions adverse to quality, do the corrective actions address the root and contributing causes.?
- (8) Did the licensee complete the corrective actions in a timely manner, commensurate with the safety significance of the issue? Were extensions of corrective action due dates adequately justified? Was combining of several condition reports under one new condition report justified ? If permanent corrective actions require significant time to implement, then verify that interim corrective actions or compensatory actions have been identified and implemented to minimize the problem or mitigate its effects, until the permanent action could be implemented;
- (9) In addition, for samples that involve maintenance rule issues, the inspector should verify the following:

- (a) The licensee has designated items under 10 CFR 50.65(a)(1) as appropriate,
- (b) Determine if corrective actions for 10 CFR 50.65(a)(1) items are adequate,
- (c) Review maintenance rule repetitive maintenance preventable functional failures (MPFFs) for indications of weaknesses in the licensee's corrective action program. In addition, identify any problems with root cause analysis or cause determination and corrective action for items experiencing repetitive MPFFs or exceeding their goals or performance criteria,
- (d) Ensure that risk assessment, risk management, and emergent work control problems associated with maintenance are identified and resolved promptly.

More Ticklers for review of Condition Reports

Status Questions

- Is the CR open or closed?
- How long has it been open?
- If open, where is it in the process?
- If closed, was closure timely?
- Was closure based on a corrective action or an administrative action?

Characterization Questions

- At what significance level was this classified?
- Do you agree with the classification?
- Were all steps of the process completed properly (i.e., accurately and timely)?
- Was an appropriate level of management involved?
- Was proper department assigned responsibility?
- Is the current level the same as originally assigned?
- If not, was revision appropriate?

Analysis Questions

- Was a new or unique activity involved?
- Were generic (plant and industry-wide) implications addressed?
- Were repetitive problem implications addressed?
- Was the chronology of the issue examined?
- Did the licensee look for precursors?
- Were human factors considered?
- Were procedural problems considered?
- Were environmental factors involved?
- Was training considered?
- Were all the people involved in the issue interviewed?
- Was some form of oversight involved?

Resolution Questions

- Is this a final or interim corrective action?
- If interim, when is final anticipated?
- What is impeding final corrective action?
- Is corrective action focused on event itself or on root cause?
- If this is a repeat event, what is different about this new corrective action?
- If this is a repeat event, does it identify the inadequacy in the previous corrective action?
- If a repeat, was previously defined corrective action completed and still in effect?
- Was present corrective action approved by appropriate level of management?
- How much of the current corrective action is already in place?
- How long has corrective action been in place?
- Does corrective action appear to be effective (staff engaged, no recurrence, etc)?
- Does licensee have a follow-up mechanism in place to test effectiveness?

Team Assignments

Successful completion of the CATI's inspection objectives and procedure requirements requires good planning and team work. Therefore, the team is being divided into areas with the following general assignments:

Electrical Engineering/Design/Management/Assessments -Zelig Falevits
 Electrical Engineering/Design/Operations -Marty Farber
 Electrical Engineering/OE/Maintenance-AI Walker
 Mechanical Engineering/Design/Operations -Patricia Lougheed
 Mechanical Engineering/Design-J. Panchison, Mechanical, Consultant
 Mechanical Engineering/Design - W. Sherbin, Mechanical, Consultant
 Electrical Engineering/Design-F. Baxter, Electrical, Consultant
 Effectiveness of Corrective Actions/audits/assessments - W. Bennett, Corrective Action, Consultant

Within these areas, the intent is to ensure that all inspection attributes are met without duplication of effort. To ensure effective teamwork and knowledge sharing, a daily afternoon team meeting will be held at 3:30 p.m. starting Tuesday March 18, 2003 which will focus on how assigned activities are being completed and what remains to be done to accomplish the inspection objectives.

Assessment of Corrective Action Program

At the completion of the inspection, the team will develop a clear and concise discussion of the results of their review. An assessment of the licensee's corrective action program/process, based on the inspection results developed during the inspection. By reviewing a sufficient number and breadth of samples, the team should be able to develop insights into the effectiveness of the licensee's corrective action process. Compare the results of the teams findings with the results of the licensee's findings, audits and assessments of the corrective action process.

IV Issues and Findings

The Risk Informed Inspection Notebook and the Significance Determination Process (SDP) for Davis-Besse Nuclear Power Station have been developed and approved. Inspectors shall address the questions of Manual Chapter 0612 and process the finding

through phase 2 of the SDP as necessary. Green findings will be documented in the inspection report. Findings that appear to be "other than green" shall be immediately discussed with the team leader, the licensee and the senior reactor analyst, to ensure that Davis Besse PRA information is correctly considered. Enforcement action for green or non-SDP issues will be handled in accordance with the Enforcement Policy.

Unless an issue can be shown to be greater than minor, additional inspection time (over approx. 4 hours) should not be spent. If an issue appears greater than minor, then sufficient questions need to be asked of the licensee to enable the inspectors to confirm any assumptions and complete the Phase 1 and 2 worksheets. If a color cannot be determined by the end of the inspection, the issue will be described as an "unresolved item," pending final determination of the appropriate risk significance. Some flexibility will be allowed for documenting non-green observations due to the nature of the inspection.

V Documentation

Inspection findings normally result in a number of questions being raised. These questions are to be given to the licensee verbally or, if written, the licensee must copy the information and the inspector must retain the written document. As part of the daily interfaces with the licensee, the team leader will go over the status of outstanding questions. Therefore, the team members need to keep the team leader informed of any concerns with timeliness or quality of responses to questions. Lack of response to questions will not be accepted as a reason for any delay in providing an input unless the team leader has been informed prior to the exit and the issue is one that will necessitate a writeup in the report. Any document requests generated on the day of the exit or afterwards must be approved by the team leader, must pertain to areas already inspected, and must be only for the purpose of ensuring an accurate document list entry.

Issues which the inspector deems meet the criteria for report writeups shall be discussed with the team lead prior to preparing an input. Inputs are to be e-mailed to the team lead within five working days (seven calendar days) of the exit. All documents "critically/deliberately" reviewed shall be included in the document list. Corrective action documents generated as a result of the inspector's questions shall be listed separately from corrective action documents that were in the licensee's system prior to the inspection.

VI Interface and Coordination Meetings

Meetings with the Licensee

A status meeting will be held at 9:30 a.m. each day during the inspection. A short licensee debrief will be held at 10:30 a.m., on Friday, at the close of each of the first two inspection weeks, prior to leaving the site.

Daily debriefings with the licensee will start Tuesday, March 18, 2003. Team members are expected to attend the debrief on Fridays, and the exit meeting on April 18, 2003. Team members do not have to routinely attend the daily debriefings, unless they identify a complex issue.

An extensive team meeting will be held starting at 2:00 p.m. Thursday, April 17th, to discuss the team's findings and determine what will be discussed at the exit. This meeting will last longer than normal team meetings.

Routine Interactions

Through-out the inspection, inspectors are expected to have routine interactions with licensee employees. It is expected that these interactions will be professional in nature and will normally be conducted without the lead inspector present. Any questions or requests for further information arising from these meetings will be conveyed to the lead inspector.

Exit Meeting

The team leader will conduct the exit meeting on April 18, 2003. Team members are expected to provide the team leader a final short summary of findings the day before the exit. Team members need attend the final exit meeting and be prepared to answer any questions that may be raised by the licensee.

VII Starfire Information

This special inspection is estimated to require approximately 960 (\pm 80) hours of direct inspection effort. The review will include mostly "Restart" as well as a small sample of "Post-Restart" corrective action items. Approximately 75% (or 700) of these hours should be spent as direct inspection evaluating effectiveness of the licensee's corrective action program in assessment and resolution of identified risk significant issues and review of RAM items for closure (charge to IP 93812 with IPE code of "ER"). Approximately 25% (or 250) of these hours should be spent in reviewing CRs, LERs, URIs, NCVs, audits, self-assessments and other corrective action related issues to determine effectiveness of licensee corrective actions taken and proposed to resolve the identified issues and determine if they are ready for closure (charge to IP 71152 with IPE code of "BI,"). We need to fulfill the requirements pertaining to assessment of effectiveness of corrective action process delineated in IP 71152. Preparation and documentation for this inspection will use IPEs, SEP, SED, BIP or BID. The direct inspection hours do not include time spent in travel, entrance or exit meetings, debriefing the residents, checking on e-mail, or keeping track of hours to correctly credit them. However, it does include time spent in team meetings and in preparing for team meetings.

General Information

Checking E-mail and Other Such Activities

For planning purposes, the lead inspector has assumed that each inspector will spend a maximum of 2 hours each week of the inspection, maximum of 6 hours, checking e-mail or doing other activities not directly related to the inspection. This time, if used, should be charged to general administration.

Travel Charges

All travel time is to be charged in HRMS to an IPE code of "AT", including travel during non-regular hours (see below). For planning purposes, a total of 6 hours travel is allotted for travel one way to the site.

Overtime

The lead inspector has requested authorization of up to 12 hours of overtime for each inspector for each of the onsite weeks. The overtime is to only be used to meet the inspection requirements and must be claimed in HRMS if used. Any overtime spent traveling (although there shouldn't be any) also **must** be claimed in HRMS using the overtime code of "ADDLT".

SCOPE AND TEAM MEMBER ASSIGNMENTS

Note to inspection team members: Please review the list of corrective action related documents delineated in the tables below and select a good sample of “Restart” items to be examined during this inspection. In addition, select a small sample of “Post-Restart” items to determine if they were properly categorized. Additional assignments may be provided by the team leader during the inspection to distribute the work load amongst the team members.

Our inspection objective is to conduct a comprehensive review of as many items, listed in the tables, as time will permit during the five weeks of inspection (3 weeks onsite and 2 weeks in the office) to determine effectiveness of licensee’s implementation of the upgraded Davis Besse corrective action program/process.

Corrective Action Condition Reports, LERs, URIs, NCVs, OE, Audits, Assessments

General Notes

1. All items listed in the tables below are “Restart” items unless designated “Post-Restart”.
2. Per the End of Cycle Paper, it is not acceptable to close a URI/NCV item based on the licensee’s putting it into their corrective action system. Closure should be based on implementation of the action to correct the problem.

General Corrective Action Condition Reports

Number	Subject	Assigned To	Status
01-2019	Evaluation of the Status of the licensee High Energy Line Break Re-analysis. IR-0219, URI-2001-011-01 (per Christine) SHA-PATH-C (Topical)	Farber	
02-00891	Corrective Action Form CAF # 16, 29, 30, 36, 40, 47, 48, 50, 52, 55, 57, 58, 71, 77, 88, 81, 84, 97, and 125. TCAR-Technical Root Cause Analysis Report MRCAR-Management Root Cause Analysis Report	Bennett	
	CR-02-04884, 02-06677, 02-04292, 02-08356, 02-10214, 02-03862, 02-08907 Sample of Corrective Action implementation CRs provided by the Resident Inspectors per TL request.	Bennett	
01-2820	Determine accident flow to EDGs if normal flow was limited to 1050 g.p.m.	Panchison	
02-03027	continued erosion of the EDG heat exchangers at high flow levels.	Panchison	

Augmented Inspection Team Follow-up Issues (50-345/02-08)

Number	RAM	Title	Assigned To	Status
50-346/2002-08-01	URI - 01	Reactor Operation with Pressure Boundary Leakage	Farber	
50-346/2002-08-02	URI- 02	Reactor Vessel Head Boric Acid Deposits	Farber	
50-346/2002-08-03	URI- 03	Containment Air Cooler Boric Acid Deposits	Farber	
50-346/2002-08-04	URI- 04	Radiation Element Filters	Farber	
50-346/2002-08-05	URI- 05	Service Structure Modification Delay	Farber	
50-346/2002-08-06	URI- 06	Reactor Coolant System Unidentified Leakage Trend	Farber	
50-346/2002-08-07	URI- 07	Inadequate Boric Acid Corrosion Control Program Procedure	Farber	
50-346/2002-08-08	URI- 08	Failure to Follow Boric Acid Corrosion Control Program Procedure	Farber	
50-346/2002-08-09	URI- 09	Failure to Follow Corrective Action Program Procedure	Farber	

System Health Assurance Implementation (50-346/02-013)

Condition Report	Title	Assigned To	Status
CR 01-01232	Crack in Battery Post Seal Ring	Baxter	
CR 02-00412	DC Voltage Drop Calculation	Baxter	
CR 02-04586	SHRR: 1992 PCAQR Corrective Action Not Yet Completed - Fuse Size	Baxter	
CR 02-06723	SHRR LIR NRC Concern regarding Site's Lubrication	Farber	
CR 02-06765	Sway Strut Bushing Grease Fittings	Farber	
CR 02-08742	Inadequate Follow up to Self Assessment 1999-0076	Farber	
CR 02-09036	Greasing of Struts	Farber	

System Health Assurance Condition Reports (SHRR, LIR, SFVP)

System Health Readiness Review/Safety Function Validation Project

Decay Heat/Low Pressure Injection

Condition Report	Title	Assigned To	Status
CR 03-00501	Lack of documentation confirming pump DHR/LPI P42-1 will not runout during recirculation phase operation	Panchison	
CR 03-00496	Acceptance criteria for test DB-CH-03004, Revision 7, are non-conservative	Farber	

Main Steam System

Condition Report	Title	Assigned To	Status
CR 03-00561	MSLB analysis credits MSIV closure under reverse flow	Sherbin	
CR 03-00568	Bases for Main Steam Safety Valve relief capacity listed in Technical Specifications could not be located		

Safety Features Actuation System

Condition Report	Title	Assigned To	Status
CR 03-00511	Calculation error affects Tech Spec value		

Steam and Feedwater Rupture Control System

Condition Report	Title	Assigned To	Status
CR 03-00519	Errors in calculation C-ICE-083.03-004 result in errors in Technical Specification Allowable Value and test procedures DB-MI-03203 and 04		

125/250 VDC

Condition Report	Title	Assigned To	Status
CR 03-00566	Calculation C-EE-002.01-010 has a non-conservative mismatch between the stated assumptions and the implementation of those assumptions in the calculation	Baxter	
CR 03-00516	Fuse supplying inverter is not coordinated with inverter breaker and both will trip if a fault occurs at the inverter input	Baxter	
CR 03-00565	Missing calculations for cable ampacity	Baxter	

480 VAC

Condition Report	Title	Assigned To	Status
CR 03-00425	Containment Spray Pump 1-1 full load current is above its power cable ampacity once fire barrier derating is included	Baxter	
CR 03-00575	Calculations are inappropriate justification for not coordinating breakers (480VAC-08)	Baxter	
CR 03-00585	No calculations to support high and low voltage limits (480VAC-19)	Baxter	

4160 VAC

Condition Report	Title	Assigned To	Status
CR 03-00567	Protective relay for makeup pump improperly set	Walker	

Latent Issues Review**Reactor Coolant**

Condition Report	Title	Assigned To	Status
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02-06215	Excessive indicated Total RCS flow error in SP-03358.		
02-06505	Ineffective Corrective Action Implementation	Bennett	
02-07185	Incorrect Root Cause /Ineffective Corrective Action	Bennett	
02-07278	RC2, Pressurizer Spray Valve Design	Sherbin	
02-07512	Pressurizer Heater Cable Configuration	Walker/ Baxter	
02-07706	Multiple open work request to install inspection openings in the service structure	Bennett	
02-07868	Inadequate Condition Report Corrective Action Response	Bennett	
02-07880	NRC response to GL 88-017 : loss of DHR	Walker	
02-07913	PM Program is Unverifiable	Walker	
02-08278	Maximum Allowable Pressurizer Level should be 228 inches not 305 inches	Panchison	
02-10072	Closed Condition Reports with Open Corrective Actions	Bennett	

Auxiliary Feedwater

Condition Report	Title	Assigned To	Status
02-03537	Review of DBI-100, "Electrical Equipment Qualification Environmental Conditions" has resulted in the following EQ related items.	Walker	
02-05079	Safety analysis does not address the effect of allowing water to pass into the upper steam annulus through the upper tap of the operate range level instrument.	Sherbin	
02-06767	LIR-AFW-CR: CR 95-0351 addresses the water content of bearing lube oil. The Justification for continued operation relies on inputs that are not bounding for mitigation of design basis accidents using licensing assumptions.	Sherbin	
02-06770	LIR-AFW-CR: No actions taken to prevent recurrence to address valve vibration problem. (Post Restart)	Bennett	
02-06773	LIR-AFW-CR 95-0906 Extent of Condition did not have to be evaluated per PCAQR procedure. No action to prevent recurrence. (OE)	Walker	
02-06775	LIR-AFW-CR-96-0240 - Inadequate corrective actions to prevent recurrence.	Bennett	
02-06778	LIR-AFW-CR-2000-0072 - Inadvertent trips of overcurrent relay targets has been an intermittent, but recurrent problem. Potential recurring issue. (Post Restart)	Bennett/ Baxter	

02-06779	LIR-AFW-CR-2000-0991 - During calibration check the voltage reading exceeded the tolerance and there was evidence of heat damage. The circuit board was replaced but the "real" root cause was not determined, no extent of condition was evaluated. <u>(Post Restart)</u>	Bennett	
02-06780	LIR-AFW-CR-2000-1578 - Untimely corrective action to address a Tech Spec violation.	Bennett	
02-06821	The referenced Surveillance Procedures should be revised to include a low point flow determination. This flow should be that used in the USAR Section 15 analyses. Ref: Calc. C-NSA-50.03-022 Rev 2.	Sherbin/ Baxter	
02-07236	LIR-AFW: The interim revision of the AFW system description indicates pump capacity (flow vs. head) requirements beyond the current design capabilities of the AFW pumps	Sherbin	
02-07524	LIR-AFW AFW PUMP CURVES A controlled documented derivation of the current pump curves for the Auxiliary Feedwater Pumps, P14-1 and P14-2, could not be found.	Sherbin	
02-08331	The DB-1 licensing basis has to be revised to unambiguously state the required event combinations for the AFW system during a large and small break LOCA. A distinction must be made between allowable load combinations and required event combinations.	Sherbin	

Service Water

Condition Report	Title	Assigned To	Status
02-05284	LIR of SW system condition reports	Bennett	
02-05516	LIR-SW: possible inaccurate consideration of design bases CAC fouling factor	Panchison	
02-05727	LIR-SW: design capacity of ultimate heat sink	Lougheed	
02-05732	LIR-SW: LAR 96-0008 not supported by analysis	Farber	
02-05923	LIR-SW: no design bases for service water pump NPSH available	Panchison/ Baxter	
02-06166	LIR-SW: flow balance testing of alternate safety related return flow paths	Panchison	

02-06392	LIR-SW: lack of degraded voltage calculation for SW pump motors	Baxter	
02-06439	LIR-SW service water pump run out	Panchison	
02-06341	LIR-SW: Review of industry experience (OE)	Walker	
02-07640	LIR_SW: No over pressure protection evaluation for isolable components	Panchison	
02-08342	LIR-SW: In-Service testing of SW pumps	Panchison	

Emergency Diesel

Condition Report	Title	Assigned To	Status
02-04202	LIR-EDG: Oxidation build up on fuses	Walker	
02-04680	Do Not Have Documentation To Assure Compliance With GE SIL 44 For HFAS	Walker	
02-04814	LIR-EDG 1 Output Breaker Closing Circuit Errors/Discrepancies	Baxter	
02-04971	LIR-EDG Procedural Deficiency For Restoring EDG Following Emergency Shut Down	Walker	
02-05039	LIR-EDG System Does Not Meet IEEE-STD-387-1972 Requirements No Calculations.	Baxter	
02-05627	LIR-EDG-59% Under Voltage Relay Logic Shown In EC128A Is Incorrect	Baxter	
02-05628	LIR-EDG- 59% Under Voltage Relay Logic Shown In SD-003A Is Incorrect	Baxter	
02-05632	LIR-EDG -Tech Spec Table 3.3-4 Trip Setpoint Tolerance Is Inadequate		
02-05633	LIR-EDG-USAR Section 15.4.4.2.6.6 Does Not Reflect The Design.		
02-05636	LIR-EDG-TDPU Relay 27X-6/C1(D1) Not Designed To Meet Functional Requirement	Baxter	
02-05703	LIR-EDG Bearing Oil Post Restart		

02-05845	LIR-EDG-High Temperature Evaluation ESI Report Restart		
02-05848	LIR-EDG-High Temperature Evaluation-Internal Temperature Rise For Cabinets		
02-05859	LIR-SW Appendix R Tech Spec 6.8.1.F Restart		
02-05914	LIR-EDG Lube Oil Procedure Guidance Restart	Sherbin	
02-06062	LIR-EDG: Fuel filter inlet operating pressure exceeds vendor limits for change	Sherbin	
02-06209	LIR-EDG Undervoltage Auxiliary Relays Logic Is Not Tested To Meet GL 96-01	Walker	
02-06511	LIR-EDG: Documentation of OE 11330 can not be located	Walker	
02-06661	LIR-EDG: Relays SAX, SEQX, K6&97/C1 are not tested to meet GL-96-01	Walker	
02-06667	LIR-EDG Output Modules Are Not Tested As Part Of The Sequencer To Meet GL 96-01	Walker	
02-06669	LIR-EDG: OE 8753 and many other EDG OES not evaluated	Walker	
02-06682	LIR-EDG: EGB Actuator failure OE7078	Walker	
02-06687	LIR-EDG: Load swing OE11321	Walker	
02-06729	LIR-EDG: Inoperability due to low viscosity oil OE 11817 (Post Restart)	Walker	
02-06731	LIR-EDG: Lube oil level control OE 13134 (Post Restart)	Walker	
02-06951	LIR-EDG Engine Derating	Panchison/ Baxter	
02-06986	LIR-EDG: Testing of aux relays associated with sequencer OE-11628	Walker	
02-07393	LIR-EDG: GE SBM switch failure OE10278 (Post Restart)	Walker	
02-07547	LIR-EDG: NRC Information Notices are not officially reviewed by station	Walker	
02-07774	LIR-EDG: OE12365 oil level in EDG bearing less than adequate	Walker	

02-07986	LIR-EDG: GE HGA relays failure (IN 97-12)	Walker	
02-08010	LIR-EDG: GE SBM switch failure (IN-98-19)	Walker/ Baxter	

Component Cooling Water

Condition Report	Title	Assigned To	Status
02-05749	LIR CCW – Non Seismic Piping Over Safety Related Components	Sherbin	
02-07148	LIR CCW – Lack Of Functional Testing Of Letdown Cooler And RCP Interlocks	Sherbin	
02-07159	LIR CCW – Non-Compliance With USAR Single Failure Statements	Panchison/ Baxter	
02-07380	LIR CCW – Outdated Pump Curves In Procedure DB-PF-06704	Panchison	
02-07382	LIR CCW – Loss Of Offsite Power Start Interlock Not Tested On All CCW Pumps	Baxter	
02-08084	LIR CCW – Required CCW Flow Rate Inconsistencies	Panchison	

Downgraded Condition Reports

The following downgraded items were identified during a Mode Change Readiness Review of Design Engineering.

Please select several items from the list and determine if the downgrading was appropriate considering significance of issue. Were any Restart items changed to Post-Restart ? Did the licensee use the established process to justify the downgraded items ?

CR #	Eval. Code	Issue	Assigned To	Status
03-00120	SR	CAC Thermal Performance Roll-up	Panchison	
02-05322	SR	Additional Review of the Containment is Warranted	Farber	
02-05440	CB	BWST Vent Line and Vacuum Breaker Potential Issues	Panchison	

02-05514	SB	SHRR Assessment of Testing Containment Spray Valves - Locked Closed	Farber	
02-05526	CB	LIR-AFW-HELB Collective Significance CR	Farber	
02-06100	CB	SSDPC Assessment Identified Incorrect Information in OJ 2000-14		
02-06337	SR	SSDPC SW Calculation C-NSA-011.01-007, REV. 1 Concerns		
02-06436	ST	SSDPC Collective Significance of Issues from SW Self Assessment and LIR		
02-06702	SR	Potential for Inadequate HPI Pump Minimum Recirculation Following LOCA	Sherbin	
02-07110	CB	EQ Walkdown: Unqualified Splice Found on Internal Motor Leads for HV240a	Baxter	
02-07347	CB	Design Package for ECR-02-0580, Polar Crane Lights, is Less than Adequate	Baxter	
02-07701	CB	Control Room Operator Dose Due to ECCS Leakage Post-LOCA	Farber	
02-07760	CB	Flood Analysis Discrepancies in the Service Water Pipe Tunnel and Valve Rooms	Panchison	
02-08020	SR	SHRR/480V: Apparent Incomplete Basis in CR 97-00275 Disposition		
02-09027	CB	EQ Walkdowns: Unqualified Splice Found on Internal Motor Leads for HVCF5B	Baxter	
02-09011	SB	EQ Walkdowns: Potential Replacement of SOR Pressure Switch PSHRC2B4		
02-05691	SR	LIR-AFW-Minimum Temperature to the AFWS SG Nozzles	Sherbin	
02-06701	CB	Post LOCA Dose From BWST with Inadvertent HP31/HP32 Failure	Farber	
02-06996	CB	HPI Flow Test Acceptance Criteria Versus T.S. 4.5.2.H	Sherbin	
02-07225	SR	Thermowell/RTD Innerface for TWRC3A3 Does Not Meet Requirements		
02-08452	CB	CAC Dropout Register Fusible Link Response Time		
03-00563	SR	SFVP: MSIVS MS100 and MS101 Surveillance Testing/Flowserve Vendor Documentation		

RAM Open Items (Do Not show this table to the licensee)

(For additional information see the latest RAM copy)

Notes: URI - Unresolved Item from inspection C - Concern
 SUP - Supplemental Inspection Program Item L - Letter

RAM #	Issue	Notes	Assign To	Status
L-50	If boric acid was the root cause of the damage to RC-262, doesn't the back-to-back damage to RC-2 and RC-262 suggest that FENOC's extent-of-condition (EOC) and problem resolution processes are flawed?	UCS CATI to evaluate EOC and problem resolution only	Bennett	
L-90	Did FENOC properly evaluate problems raised during the system assessments at D-B for reportability under 10 CFR 50.72 and 50.73?	Lochb (see URI-42) CR 0209314	Bennett	
C-02	DG loading - CR # 02-8482 (also see CR 02-05922 & 05925)	350	Baxter	
SUP-15	Review of Licensee Control Systems for Identifying, Assessing, and Correcting Performance Deficiencies: Determine whether licensee evaluations of, and corrective actions to, significant performance deficiencies have been sufficient to correct the deficiencies and prevent recurrence.	IP 71152	Team	
SUP-16	Review of Licensee Control Systems for Identifying, Assessing, and Correcting Performance Deficiencies: Evaluate the effectiveness of audits and assessments performed by the quality assurance group, line organizations, and external organizations.	IP 71152 (CATI to review effectiveness of audits and assessments of CAP only)	Zelig	
SUP-20	Review of Licensee Control Systems for Identifying, Assessing, and Correcting Performance Deficiencies: Evaluate the effectiveness of the organization's use of industry information for previously documented performance issues.	IP 71152	Walker	
SUP-27	Assessment of Performance in the Reactor Safety Strategic Performance Area: Inspection Preparation: Review licensee analyses of corrective actions related to specific findings and general audits where available.	IP 71152	Bennett	

SUP-30	Assessment of Performance in the Reactor Safety Strategic Performance Area: Key Attribute - Design: Assess the effectiveness of corrective actions for deficiencies involving design.	IP 71152		
SUP-41	Assessment of Performance in the Reactor Safety Strategic Performance Area: Key Attribute - Procedure Quality: Assess the effectiveness of corrective actions for deficiencies involving procedure quality.	IP 71152		
SUP-44	Assessment of Performance in the Reactor Safety Strategic Performance Area: Key Attribute - Equipment Performance: Assess the effectiveness of corrective actions for deficiencies involving equipment performance, including equipment designated for increased monitoring via implementation of the Maintenance Rule.	IP 71152	Walker	
SUP-48	Assessment of Performance in the Reactor Safety Strategic Performance Area: Key Attribute - Configuration Control: Assess the effectiveness of corrective actions for deficiencies involving configuration control.	IP 71152	Bennett	
LER-06	Review and Evaluate EDG Missile Shield LER. See also Condition Report 02-5590.	LER-2002-06	Panchison	
LER-08	Review and Evaluate Containment Air Coolers collective significance LER. See also Condition Report 02-5563.	LER-2002-08	Sherbin	
LER-09	Degradation of High Pressure Injection thermal sleeves.	LER-2002-09	Sherbin	
URI-13	Potential impact of corrosion on the ground function of electrical conduit in containment	IR 02-12-02	Baxter	
URI-14	Potential failure to follow the procedure for Raychem splice removal on electrical cables	IR 02-12-03	Walker	
URI-15	Failure to perform comprehensive Moderate Energy Line Break analysis	IR 02-14-01c CR 02-07757		
URI-16	Lifting of Service Water Relief Valves	IR 02-14-01d CR 02-07879	Bennett	
URI-17	Inadequate SW pump room temperature analysis	IR 02-14-01e CR 02-07188	Panchison	
URI-18	Inadequate ASW pump room steam line break analysis	IR 02-14-01f CR 02-07475	Sherbin	
URI-19	Inadequate cable ampacity analysis	IR 02-14-01g CR 02-06893	Baxter	
URI-20	Inadequate flooding protection for the SW pump house	IR 02-14-01h CR 02-07714	Panchison	

URI-21	Poor quality calculation for 90 percent undervoltage relays	IR 02-14-01j CR 02-07633	Baxter	
URI-22	Inadequate calculations for control room operator dose (GDC-19) and offsite dose (10 CFR Part 100) related to HPI pump minimum flow valves	IR 02-14-01l CR 02-06701 CR 02-07701	Farber	
URI-23	Other GDC-19 and 10 CFR Part 100 issues	IR 02-14-01m CR 02-07713	Farber	
URI-24	HPI Pump Operation Under Long Term Minimum Flow	IR 02-14-01n CR 02-07684	Sherbin/ Baxter	
URI-25	Some small break LOCA sizes not analyzed	IR 02-14-01o CR 02-06702	Panchison	
URI-26	Inadequate SW flow analysis	IR 02-14-01p CR 02-06438 CR 02-06333	Panchison	
URI-27	Inadequate SW thermal analysis	IR 02-14-01g CR 02-05372 CR 02-07716	Lougheed	
URI-28	Inadequate UHS inventory analysis	IR 02-14-01r CR 02-05986 CR 02-07692	Sherbin	
URI-29	No Valid Service Water Pump Net Positive Suction Head Analysis	IR 02-14-01s CR 02-05923	Panchison	
URI-30	SW source temperature analysis for AFW	IR 02-14-01t CR 02-05923	Sherbin	
URI-31	Inadequate short circuit calculations	IR 02-14-01u CR 02-06837 CR 02-06302	Baxter	
URI-32	Inadequate SW system flow balance testing	IR 02-14-02b CR 02-06064	Panchison	
URI-33	Inappropriate SW pump curve allowable degradation	IR 02-14-03a CR 02-07468	Panchison	
URI-34	Repetitive failures of SW relief valves	IR 02-14-03b CR 02-07995	Bennett	
URI-35	Non-Conservative Differences in UHS Temperature Measurements	IR 02-14-03c CR 02-07716	Lougheed	
URI-36	Non-Conservative containment air cooler mechanical stress analysis	IR 02-14-03e CR 02-05563		
URI-42	Inadequate Implementation of the Corrective Action Process Which Led to Not Identifying a Potentially Reportable Issue regarding the containment air coolers. (CR-02-09314)	IR 02-17 NCV	Bennett	
NCV-06	Lack of a design basis analysis for containment isolation valve backup air supplies	IR 02-14-01a CR 02-07750	Sherbin	
NCV-07	Inadequate blowdown provisions for CAC backup air accumulators	IR 02-14-01b CR 02-07750	Sherbin	
NCV-08	Non-conservative TS value for 90 percent undervoltage relays	IR 02-14-01i CR 02-07766	Baxter	

NCV-09	Non-conservative relay setpoint calculation for the 59 percent undervoltage relays	IR 02-14-01k CR 02-06737 CR 02-07646	Baxter	
NCV-10	No analytical basis for the setpoint to swap service water system discharge path	IR 02-14-01v CR 02-07802	Lougheed	
NCV-11	SW surveillance test did not use worst case values	IR 02-14-02a CR 02-07781	Lougheed	
NCV-12	Inadequate corrective actions related to SW pump discharge check valve acceptance criteria	IR 02-14-03d CR 02-07657	Lougheed	
NCV-13	Failure to perform TS surveillance requirement for HPI pump following maintenance	IR 02-14-04 CR 02-06996	Walker	

Licensee's Assessment Findings Classified as "Potential Safety Consequences of Nonconforming Conditions at Davis-Besse"

(From MPR Eng's review, dated 12/27/02)

Note: See list of A-1 and A-2 Nonconformances Categorized as Potential Impacts on Chapter 15 Safety Analysis in Table 2-2 next page.

A: SIGNIFICANT IMPACT

There are two subcategories for this category:

A-1 Potential significant impact on Chapter 15 analysis; analysis will be required prior to restart.

Includes a nonconformance in this subcategory if:

- The physical attribute required (as identified in the LIR/self-assessment) to satisfy a safety related function can not be met. For example, the pump head/flow characteristic employed in the Chapter 15 analysis or the required system startup time can not be met.
- The required physical analysis could be met if limitations to system operation were imposed, but it is desired to avoid such restrictions by re-analysis. For example, post accident criticality analysis were performed assuming a minimum auxiliary feedwater temperature of 60°F, but actual feedwater temperature can be below 40°F for limited periods of time.

A-2. Nonconforming condition that does not require an analysis change but which must be corrected in order for the plant to survive Chapter 15 accident scenarios.

Examples of nonconformance in this subcategory include:

- Absence of calculations needed to define component/system operating characteristics or to determine functional or structural capability.
- Incorrect or missing emergency operating procedures.
- Plant equipment not able to perform its design function.

Excluded from this subcategory are issues that are expected to be addressed by normal plant programs such as Seismic Qualification, Environmental Qualification, Appendix R, HELB and Flooding.

Also included in this category are conditions expected to have a significant impact on the likelihood of core damage, even if not directly associated with Chapter 15 accident analysis.

Table 2-2. Nonconformances Categorized as Potential Impacts on Chapter 15 Safety Analysis

CR Number	Title/Description	System/Category	Assigned To	Status
02-05691	LIR-AFW-MINIMUM TEMPERATURE TO THE AFW SG NOZZLES	AFW/A-1	Sherbin	
02-05727	LIR-SW: DESIGN CAPACITY OF ULTIMATE HEAT SINK	SW/A-1	Lougheed	
02-07701	CONTROL ROOM OPERATOR DOSE DUE TO ECCS LEAKAGE POST-LOCA	Misc/A-1	Sherbin	
02-07713	POST ACCIDENT CONTROL ROOM CALCULATIONS	Misc/A-1	Sherbin	
02-02658	INADEQUATE VENTILATION FOR ROOMS 323, 324, 325	4160 V/A-2	Panchison/Baxter	
02-06305	SSDPC-C-EE-015.03-003, STEADY STATE ANALYSIS: ELMS (ELECT LOAD MANAGEMENT SYS)	4160 V/A-2	Baxter	
02-06477	SSDPC-HPI PUMP PERFORMANCE NOT EVALUATED FOR EXPECTED INPUT POWER VARIATIONS	4160 V/A-2	Sherbin	
02-04673	LIR-AFW-STRAINERS LIMITING PARTICLE SIZE	AFW/A-2	Lougheed	
02-05904	LIR-AFW-DESIGN BASES CALCULATIONS NOT LOCATED	AFW/A-2	Lougheed	
02-07441	LIR-AFW-TIME CRITICAL OPERATOR ACTIONS	AFW/A-2	Lougheed	
02-07458	LIR-AFW-PERFORMANCE OF CAVITATING VENTURES	AFW/A-2	Lougheed	
02-07165	LIR CCW-DESIGN PERFORMANCE LIMITS NOT REFLECTED IN TEST PROCEDURES	CCW/A-2	Lougheed	
02-07169	LIR CCW-LACK OF CCW FLOW VERIFICATION TO ESSENTIAL COMPONENTS	CCW/A-2	Lougheed	
02-07292	LIR CCW-POTENTIAL CCW IMPACT FROM LETDOWN LINE BREAK	CCW/A-2	Lougheed	
02-05364	LIR EDG-ELECTRICAL CAPACITY CALCULATION C-EE-024.01-005	EDG/A-2	Baxter	
02-05383	LIR EDG-EDG ELECTRICAL CAPACITY CALCULATION C-EE-015.03-002	EDG/A-2	Baxter	

CR Number	Title/Description	System/Category	Assigned To	Status
02-05385	LIR EDG-STEP 1 BLOCK LOADING CALCULATION C-EE-024.01-006 IS INADEQUATE	EDG/A-2	Baxter	
02-05397	LIR EDG-ENERGIZING BUS TIE TRANSFORMER FOR MOTOR DRIVEN FEED PUMP NEEDS TO BE REVISED	EDG/A-2	Baxter	
02-05446	LIR EDG-EDG LOADING COULD EXCEED ELECTRICAL CAPABILITY WHEN PARALLELED	EDG/A-2	Baxter	
02-05878	LIR EDG-SFAS VALVE LOADS NOT LISTED IN EDG LOADING TABLE	EDG/A-2	Baxter	
02-05922	LIR EDG-DISCREPANCY IN EDG VOLTAGE AND FREQUENCY DURING LOADING	EDG/A-2	Baxter	
02-05925	LIR EDG-EDG TRANSIENT ANALYSIS DURING LOADING SEQUENCE	EDG/A-2	Baxter	
02-06236	LIR EDG-POTENTIAL ICING OF FUEL OIL TANK FLAME ARRESTORS	EDG/A-2	Baxter	
02-06757	LIR EDG-POTENTIAL OVERLOAD CONDITION	EDG/A-2	Baxter	
02-06940	LIR EDG-EDG ROOM TEMPERATURE CALCULATION	EDG/A-2	Panchison/ Baxter	
02-07596	LIR EDG-HIGH TEMPERATURE OVERALL	EDG/A-2	Panchison	
02-07599	LIR-EDG HIGH TEMPERATURE- DETERMINE CAPABILITY TO FUNCTION	EDG/A-2	Panchison	
02-09038	LIR EDG-SINGLE FAILURE OF EDG 2 COULD INOP EDG 1 ALSO	EDG/A-2	Baxter	
02-06370	SSDPC: ECCS PUMP ROOM HEAT LOAD CALCULATION IS NON-CONSERVATIVE	HPI/A-2	Panchison	
02-06384	SSDPC: ENHANCEMENT TO CALCULATION 5§020 FLOODING OF ECCS ROOMS DUE FWLB	HPI/A-2	Panchison Patricia	
02-06477	SSDCP-HPI PUMP PERFORMANCE NOT EVALUATED FOR EXPECTED INPUT POWER VARIATIONS	HPI/A-2	Sherbin	

CR Number	Title/Description	System/Category	Assigned To	Status
02-06702	POTENTIAL FOR INADEQUATE HPE PUMP MINIMUM RECIRCULATION FOLLOWING LOCA	HPI/A-2	Sherbin	
02-04102	LIR-RCS: RCI3B MANUAL LIFT DEVICE APPEARS TO BE LOCKED UP	RCS/A-2		
02-05272	LIR-RCS: PZR MANWAY SHORT STUD TORQUE VALUE IS INCONSISTENT WITH DB-MM-09011	RCS/A-2		
02-05948	LIR-RCS: NO BASIS FOUND FOR OPERATING LIMITS SPECIFIED IN TS 3/4.4.8	RCS/A-2		
02-06536	LIR-RCS: PZR VENT FLOW CAPACITY HAS NO DESIGN BASIS	RCS/A-2	Sherbin	
02-06885	LIR-RCS: RCS FLOW UNCERTAINTY MAY BE HIGHER THAN ASSUMED	RCS/A-2		
02-07559	LIR-RCS: LACK OF RESPONSE TO RFAS FOR DESIGN BASIS VALIDATION INFORMATION	RCS/A-2		
02-07609	LIR-RCS: CABLE SEPARATION HIGH POINT VENT VALVES	RCS/A-2	Baxter	
02-07612	LIR-RCS: CABLE SEPARATION FOR RC200 & RC239A	RCS/A-2	Baxter	
02-05369	LIR OF INADEQUATE SERVICE WATER SYSTEM FLOW BALANCE PROCEDURE	SW/A-2	Lougheed	
02-05372	LIR OF SERVICE WATER SYSTEM DESIGN FLOW RATES TO THE ECCS ROOM COOLERS	SW/A-2	Lougheed	
02-05640	LIR-SW: NO DESIGN BASES/FLOW VERIFICATION TESTING OF SW FLOW TO AFW SYSTEM	SW/A-2	Lougheed	
02-05748	LIR-SW: LACK OF SW/UHS DESIGN BASES FOR SEISMIC EVENT AND SINGLE ACTIVE FAILURE	SW/A-2	Lougheed	
02-05885	LIR-SW: NO ECCS COOLER/CONTAINMENT AIR COOLER INSPECTION ACCEPTANCE CRITERIA	SW/A-2	Lougheed	
02-06134	LIR SW: DEAD LEG INSPECTIONS AND CLEANING	SW/A-2	Lougheed	

CR Number	Title/Description	System/Category	Assigned To	Status
02-06356	SSDPC: UHS ANALYSIS DO NOT DOCUMENT THAT WORST-CASE CONDITIONS ARE ENVELOPED	SW/A-2	Lougheed	
02-06370	SSDPC: ECCS PUMP ROOM HEAT LOAD CALCULATION IS NON-CONSERVATIVE	SW/A-2	Lougheed Panchison	
02-06736	SSDPC: ERROR IN ECCS ROOM COOLER HEAT TRANSFER CAPABILITY CALCULATION	SW/A-2	Lougheed	
02-07409	LIR-SW: POTENTIAL LOSS OF ALL SERVICE WATER DUE TO FLOODING IN THE SW PUMP ROOM	SW/A-2	Lougheed	
02-08251	CONCERNS WITH ULTIMATE HEAT SINK ANALYSIS POST LOCA	SW/A-2	Lougheed	

RAM Closure Form

Attached is the closure form to be used for closing RAM items. As you complete and close an item, please document your closure for an item on the attached form and give or e-mail the completed form to the team leader.

<u>RAM Item No.</u>	
<u>Description of Issue</u>	
<u>Description of Resolution</u>	
<u>Reference Material</u>	
<u>Item Closed/Open</u> If items remains open, what has to be done to close the item ?	

General Inspection Guidance for Root and Apparent Cause Evaluations

Determine whether licensee evaluations of, and corrective actions to, significant performance deficiencies have been sufficient to correct the deficiencies and prevent recurrence. Evaluate whether evaluations are of a depth commensurate with the significance of the issue. Evaluations should ensure that the root and contributing causes of risk significant deficiencies are identified. Corrective actions should be taken to correct the immediate problems and to prevent recurrence.

Determine that the root cause evaluation was conducted to a level of detail commensurate with the significance of the problem. Determine that the root cause evaluation included a consideration of prior occurrences of the problem and knowledge of prior operating experience. Determine that the root cause evaluation included consideration of potential common cause(s) and extent of condition of the problem.

The root cause evaluation methods that are commonly used in nuclear facilities are:

Events and causal factors analysis -- to identify the events and conditions that led up to an event;

Fault tree analysis -- to identify relationships among events and the probability of event occurrence;

- Barrier analysis -- to identify the barriers that, if present or strengthened, would have prevented the event from occurring;
- Change analysis -- to identify changes in the work environment since the activity was last performed successfully that may have caused or contributed to the event;
- Management Oversight and Risk Tree (MORT) analysis -- to systematically check that all possible causes of problems have been considered; and
- Critical incident techniques -- to identify critical actions that, if performed correctly, would have prevented the event from occurring or would have significantly reduced its consequences.

A determination of cause and effect relationships should result in an identification of root and contributory causes which consider potential hardware, process, and human performance issues.

NRC Inspection Procedures

IP 71152 Objectives and Guidance (Selected portions extracted from the IP)
(Please review the entire IP for more guidance)

A fundamental goal of this inspection is to establish confidence that the licensee is detecting and correcting problems in a manner that limits the risk to members of the public.

Inspection objectives

01.01 To provide for early warning of potential performance issues.

01.04 To allow for follow-up of previously identified compliance issues (e.g. NCVs).

01.06 To determine whether licensees are complying with NRC regulations regarding corrective action programs.

02.03 Biennial Problem Identification and Resolution Inspection

Perform a biennial inspection of the problem identification and resolution activities as follows:

a. From among conditions adverse to quality which the licensee has identified and processed through its corrective action process and are associated in some way with risk-significant SSCs, select a sample for review.

b. Review each condition/problem selected for review using the performance attributes contained in paragraph 03.03.c of the procedure.

c. Review recent audits and/or assessments of the licensee's corrective action program, and compare and contrast the results of those audits and/or assessments with the results developed through this inspection.

e. Develop an assessment of the licensee's implementation of the corrective action process, based on the inspection results developed through steps a. through c..

Inspection guidance

To the extent possible, this inspection should follow a performance based approach. Emphasize the products and results of the licensee's PI & R program. Inspections performed under this procedure should concentrate on the identification of problems and the effectiveness of corrective actions for risk significant issues rather than on reviewing the administrative aspects of the corrective action program and associated procedures.

This inspection will examine, in part, a sample of licensee corrective action issues to provide an indication of overall problem identification and resolution performance. In selecting issues for inspection, the inspectors should take the following into considerations:

1. Licensee identified issues (including issues identified during audits or self assessments).
2. NRC identified issues.
3. Issues related to NCVs (for the biennial inspection it is mandatory to review the licensee's response to a sample of NCVs unless no NCVs were issued in the cornerstone).
4. Issues identified through NRC generic communications.
5. Issues identified through industry operating experience exchange mechanisms (including Part 21 reports, NSSS vendor reports, EPRI reports, experience reports from similar facilities, LERs).
6. Specific or cross cutting issues identified by safety review committees or other management oversight mechanisms.
7. Issues identified through employee concerns programs.

03.02 Selected Issue Follow-up Inspection

b. Performance Attributes

When evaluating the effectiveness of licensee corrective actions for a particular issue, the licensee's actions must be viewed against the nature and significance of the identified problem. Risk should be a primary factor in the licensee's significance determination. Attributes to consider during review of licensee actions associated with individual issues include the 8 attributes noted in 03.01 above.

In addition to the general performance attributes contained above, the inspector should refer to Inspection Procedure 95001 for additional guidance on assessing licensee evaluations of significant performance issues. It is not expected that the inspectors assess each attribute for every issue selected for follow up during these routine reviews. Rather, inspectors may choose to assess licensee performance against selected attributes, as necessary to be most effective.

03.03 Biennial Problem Identification and Resolution Inspection. The biennial inspection of problem identification and resolution is intended to complement and expand upon the reviews described in Section 03.01 and 03.02 of this procedure by:

1. Evaluating additional examples of licensee problem identification and resolution.
2. Reviewing the resolution of issues that earlier had been assessed for the licensee's identification efforts only.
3. Comparing the NRC's results against the licensee's own assessment of performance in the PI & R area.
4. Assessing whether PI & R deficiencies exist across cornerstones that might indicate potential programmatic issues.

e. Development of PI&R Program Performance Insights.

By reviewing a sufficient number and breadth of samples, the inspection team should be able to develop insights into the effectiveness of the licensee's corrective action program.

f. Documentation and Evaluation of Program Effectiveness.

At the completion of inspection activities, the team should develop a clear and concise discussion of the results of their review.

Corrective Action Guidance from IP 95002 (For Reference only)

02.03 Corrective Actions

- a. Determine that appropriate corrective action(s) are specified for each root/contributing cause or that there is an evaluation that no actions are necessary.
- b. Determine that the corrective actions have been prioritized with consideration of the risk significance and regulatory compliance.

- c. Determine that a schedule has been established for implementing and completing the corrective actions.
- d. Determine that quantitative or qualitative measures of success have been developed for determining the effectiveness of the corrective actions to prevent recurrence.

03.03 Corrective Action

The proposed corrective actions to the root and contributing causes should:

- a. Address each of the root and contributing causes to the White issue and the extent of condition of the issue. The corrective actions should be clearly defined. Examples of corrective actions may include, but are not limited to, modifications, inspections, testing, process or procedure changes, and training.

The proposed corrective actions should not create new or different problems as a result of the corrective action. If the licensee determines that no corrective actions are necessary, the basis for this decision should be documented in the evaluation.

- b. Include consideration of the results of the licensee's risk assessment of the issue in prioritizing the type of corrective action chosen. Attention should be given to solutions that involve only changing procedures or providing training as they are sometimes over-utilized. In such cases, consideration should be given to more comprehensive corrective actions such as design modifications. The corrective action plan should also include a review of the regulations to ensure that if compliance issues exist, the plan achieves compliance.

Also, the licensee should ensure that:

- c. The corrective actions are assigned to individuals or organizations that are appropriate to ensure that the actions are taken in a timely manner. Also, the licensee should ensure that there is a formal tracking mechanism established for each of the specific corrective actions.
- d. A method exists to validate the effectiveness of the overall corrective action plan. Specifically, a method should be established to measure, either quantitatively or qualitatively, the effectiveness of the corrective actions. Effective methods would include, but are not limited to, assessments, audits, inspections, tests, and trending of plant data, or follow-up discussions with plant staff.

02.04 Independent Assessment of Extent of Condition and Generic Implications. Perform a focused inspection(s) to independently assess the validity of the licensee's conclusions regarding the extent of condition of the issues. The inspection(s) chosen should be selected from the list contained in Appendix B to Inspection Manual 2515. The objective of this procedure should be to independently sample performance, as necessary to provide assurance that the licensee's evaluation regarding extent of condition is sufficiently comprehensive. The intent is not to re-perform the licensee's evaluation, but is to assess the validity of the licensee's evaluation by independently sampling performance within the key attributes of the cornerstone(s) that are related to the subject performance issue. The results of the NRC's review of extent of condition should be documented in this inspection report.

03.04 Independent Assessment of Extent of Condition

- a. In choosing the inspection procedure(s) to assess the validity of the licensee's conclusions regarding extent of condition, consideration should be given to whether multiple risk significant performance issues have been identified. For those instances where multiple issues have been documented, a broad based inspection(s) which would assess performance across the associated strategic performance area should be considered. If this procedure is being performed due to a single yellow issue, a more focused inspection would likely be appropriate.

Consideration should also be given to the comprehensiveness of the licensee's evaluation(s). In those cases where significant weaknesses are identified in the licensee's evaluation(s) during implementation of paragraphs 02.01 through 02.03 of this procedure, consideration should be given to performing a more in-depth programmatic review of the licensee's corrective action program.