

Status of Davis-Besse Lessons Learned Task Force Recommendations

Last Update: August 30, 2004

Category: Stress Corrosion Cracking

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
3.1.1(1)	<i>Assemble foreign and domestic information concerning Alloy 600 (and other nickel based alloys) nozzle cracking and boric acid corrosion. Analyze nickel based alloy nozzle susceptibility to stress corrosion cracking (SCC), including other susceptible components, and boric acid corrosion of carbon steel, and propose a course of action and an implementation schedule to address the results.</i>	High	SCC	10/04	TBD	RES (DET) for data collection NRR (DE) for other actions
<p>STATUS: Data collection is being accomplished in two phases. Collection of information on cracking was completed 03/31/04 (ML040910372, ML040910354). Collection of information on boric acid corrosion is in progress and is targeted for completion by 10/04. The information collected by these efforts will be part of the technical basis for evaluating future changes in inspection requirements, such as those being developed per LLTF 3.3.4(8). No new issues have been identified in the data collected to date. If any new issues are identified, then a specific action plan and schedule will be developed to address them.</p> <p>The information contained in these two reports and a third report on Alloy 600 cracking susceptibility (ML032461221), which was issued on 3/31/04 to address LLTF 3.1.4(1), will be combined into one NUREG report and will be published in March 2005.</p>						
3.2.2(1)	<i>Inspect the adequacy of PWR [pressurized-water reactor] plant boric acid corrosion control programs, including their implementation effectiveness, to determine their acceptability for the identification of boric acid leakage, and their acceptability to ensure that adequate evaluations are performed for identified boric acid leaks.</i>	High	SCC	03/04 05/05	05/05	NRR (IIPB)

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<p>STATUS: The evaluation of responses to Bulletin 2002-01, which included audits of boric acid corrosion control (BACC) programs at five plants, determined that plants appeared to be complying with requirements at the programmatic level. The results of the evaluation were summarized in Regulatory Issues Summary (RIS) 2003-13 (ML032100653). Temporary Instruction (TI) 2515/150 provides guidance for inspecting licensees' reactor pressure vessel (RPV) head inspections pursuant to Order EA-03-009, and includes instructions for follow-up on findings of boric acid accumulation. Inspection Procedure (IP) 71111.08, "Inservice Inspection Activities," was revised on 5/11/04 to add periodic inspection requirements and guidance for boric acid corrosion control. The target date was extended to allow time to conduct inspections. An evaluation of inspection results and the adequacy of inspection guidance will be done after approximately 1 year of inspections.</p>						
3.3.2(1)	<i>Develop inspection guidance for the periodic inspection of PWR plant boric acid corrosion control programs.</i>	High	SCC	03/04 Complete	05/05	NRR (IIPB)
<p>STATUS: TI 152, issued in 11/03, provides interim inspection guidance for follow-up to Bulletin 2003-02, which includes BACC programs. IP71111.08, "Inservice Inspection Activities," was revised on 5/11/04 to add periodic inspection requirements and guidance for boric acid corrosion control.</p>						
3.3.4(3)	<i>Develop inspection guidance or revise existing guidance to ensure that VHP [vessel head penetration] nozzles and the RPV head area are periodically reviewed by the NRC during licensee ISI [inservice inspection] activities.</i>	High	SCC	03/04 Complete	05/05	NRR (IIPB)
<p>STATUS: TI 150, issued 08/03, provides interim inspection guidance for follow-up to Order EA-03-009. IP 71111.08, "Inservice Inspection Activities," was revised on 5/11/04 to add periodic inspection requirements and guidance for PWR vessel head penetration inspections.</p>						

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
3.3.4(8)	<p><i>Encourage ASME [American Society of Mechanical Engineers] Code requirement changes for bare metal inspections of nickel based alloy nozzles for which the code does not require the removal of insulation for inspections. Also, encourage ASME Code requirement changes for the conduct of non-visual NDE [nondestructive examination] inspections of VHP nozzles.</i></p> <p><i>Alternatively, revise 10 CFR 50.55a to address these areas.</i></p>	High	SCC	<p>TBD</p> <p>06/06</p>	TBD	NRR (DE/DRIP)
<p>STATUS: Staff will review EPRI/MRP guidelines, which are expected to form the basis for ASME code changes, when issued. Issuance has been delayed several times. NRC management has communicated with industry to encourage timely issuance of proposed guidelines. The NRC Staff also participates in ASME Code committees. Once the ASME Code requirements are updated, the staff will evaluate them for inclusion by reference into 10 CFR 50.55a.</p> <p>Separately, the ASME is developing Code Case N-722 which requires bare metal visual examination of all ASME Code Class 1 alloy 600/82/182 components each refueling outage. The NRC is supporting development and approval. Inspection requirements can be strengthened by incorporating Code Case N-722 in 10 CFR 50.55a.</p> <p>Interim inspection requirements have been established by issuance of First Revised Order EA-03-009. Due to the delay in updating the ASME Code, the NRC staff initiated action to incorporate Order EA-03-009 guidelines into 10 CFR 50.55a and submitted a rulemaking plan for Commission approval in 07/04. The Commission decided not to proceed with separate rulemaking and directed the staff to continue working with the industry to revise the ASME code (SRM-SECY-04-0115, 8/6/04). Target date for separate rulemaking was deleted. Any changes to 10 CFR 50.55a will be done following NRC staff review of industry actions. Completion of this recommendation depends on ASME actions.</p>						

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
3.1.4(1)	<i>Determine if it is appropriate to continue using the existing SCC models as a predictor of VHP nozzle PWSCC [primary water SCC] susceptibility given the apparent large uncertainties associated with the models. Determine whether additional analysis and testing are needed to reduce uncertainties in these models relative to their continued application in regulatory decision making.</i>	Medium	SCC	Complete	Not required	RES
<p>STATUS: In its current form, the model is based on time and temperature effects alone and is adequate for prioritizing reactor VHP inspections. It has been used in the development of inspection requirements in Order EA-03-009 and the bulletins that preceded it. Inspection results to date have been consistent with model predictions and do not indicate a need for revising the model in the near term. A report by the Office of Nuclear Regulatory Research, issued 7/21/03 (ML032461224 and ML032461221), identified refinements that could be made to the model. These improvements are not needed to satisfy this recommendation and will require research activities that are beyond the scope of the LLTF recommendation. The report will be issued together with the reports required for LLTF 3.1.1(1).</p>						
3.3.7(6)	<i>Determine whether ISI summary reports should be submitted to the NRC, and revise the ASME submission requirement and staff guidance regarding disposition of the reports, as appropriate.</i>	Low	SCC	TBD	TBD	NRR (DE)
<p>STATUS: The staff has been and wants to continue receiving the reports. Formal guidance for distribution and review of the reports will be developed. Some changes in report format and content may be useful and will continue to be worked with the ASME Code. If changes to the reporting requirements are necessary, completion of this recommendation will depend on ASME actions.</p>						

Category: Operating Experience

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
3.1.6(1)	<i>Take the following steps to address the effectiveness of programs involving the review of operating experience: (1) evaluate the agency's capability to retain operating experience information and to perform longer-term operating experience reviews; (2) evaluate thresholds, criteria, and guidance for initiating generic communications; (3) evaluate opportunities for additional effectiveness and efficiency gains stemming from changes in organizational alignments (e.g., a centralized NRC operational experience "clearing house"); (4) evaluate the effectiveness of the Generic Issues Program; and (5) evaluate the effectiveness of the internal dissemination of operating experience to end users.</i>	High	OpE	Complete	12/05	NRR(IROB) and RES
<p>STATUS: This action required the evaluation of various aspects of the agency's operating experience program. This action item became the foundation of the charter for to Operating Experience Task Force (OETF) [ML031200535]. The OETF documented its evaluation of items (1) through (5) of the recommendation in its report dated 11/26/03 (ML033350063). The OETF made 23 recommendations for improving the effectiveness of the agency's operating experience program that are currently being implemented in accordance with the Operating Experience Action Plan dated 4/29/04 (ML041180024).</p>						

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
3.1.6(2)	<i>Update NRC operating experience guidance documents.</i>	High	OpE	12/04	12/05	NRR (IROB) and RES
<p>STATUS: This LLTF recommendation is directed at the fact that Management Directive (MD) 8.5, "Analysis and Evaluation of Operational Data" has not been updated since the dissolution of the Analysis and Evaluation of Operational Data organization and the transfer of Operating Experience Program responsibilities to NRR and RES. However, NRR Office Instruction, LIC-401, "NRR Operating Experience Program," was issued in March 2003 to reflect the current practices of NRR's Operating Experience Section located in the Division of Inspection Program Management. The Operating Experience Action Plan (ML041180024) will develop an agency-wide program. A draft MD will be developed by December 2004 and will be implemented pending Commission approval by the offices of NRR and RES. The MD will be the foundation of the agency operating experience program and will incorporate the 23 recommendations of the OETF.</p>						
3.1.6(3)	<i>Enhance the effectiveness of NRC processes for the collection, review, assessment, storage, retrieval, and dissemination of foreign operating experience.</i>	High	OpE	12/04 Complete	12/05	NRR (IROB) and RES
<p>STATUS: At the time of this recommendation, foreign operating experience, such as that received through the IAEA Incident Reporting System (IRS), was only communicated and distributed in an ad hoc fashion. Today, it is a formal element of the NRC Operating Experience Section screening process and available on the internal web site.</p> <p>NRR Office Instruction LIC-401, "NRR Operating Experience Program," was issued on 3/31/03. This office instruction incorporates action to enhance the effectiveness and utilization of foreign operating experience within the Operating Experience Section. This process will be further enhanced upon implementation of the Operating Experience Action Plan (ML041180024). An overall effectiveness review will be performed approximately one year following implementation of the action plan.</p>						

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
3.2.4(1)	<i>Assess the scope and adequacy of requirements governing licensee review of operating experience.</i>	High	OpE	Complete	12/05	NRR (IROB)
<p>STATUS: This assessment was performed as part of the Operating Experience Task Force Report (ML033350063), which was issued November 26, 2003. Section 5 of this report concludes that the scope and adequacy of the requirements related to the licensee review of operating experience are currently acceptable. Inspection Procedure 71152, "Identification and Resolution of Problems," is the key baseline procedure for evaluating licensee utilization of operating experience, and the Operating Task Force found that recent changes to that procedure (Change Notice 03-032) enhanced NRC baseline inspection efforts.</p>						
3.3.1(1)	<p><i>Provide training and reinforce expectations to NRC managers and staff members to address the following areas: (1) maintaining a questioning attitude in the conduct of inspection activities; (2) developing inspection insights stemming from the DBNPS [Davis-Besse Nuclear Power Station] event relative to symptoms and indications of RCS [Reactor Coolant System] leakage; (3) communicating expectations regarding the inspection follow-up of the types of problems that occurred at DBNPS; and (4) maintaining an awareness of surroundings while conducting inspections. Training requirements should be evaluated to include the appropriate mix of formal training and on-the-job training commensurate with experience. Mechanisms should be established to perpetuate these training requirements.</i></p>	High	OpE	12/03 Complete	05/05	NRR (IIPB)

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
<p>STATUS: The focus of this recommendation is on regional staff . The Inspection Program Branch developed a web-based training course (http://grape/readygo/nrr/readandsign/columbia/index.htm) based on the Columbia Space Shuttle Accident with the purpose to (1) illustrate the importance of maintaining a questioning attitude toward safety and the potential negative consequences that can occur when such a questioning attitude is lost or compromised; (2) provide examples of how issues concerning an organization's safety culture can lead to technological failures; (3) provide insights into investigation techniques that can be used to assess safety significant issues or events; and (4) illustrate the importance of a robust corrective action program and highlight the corrective action program weaknesses that contributed to the shuttle accident.</p> <p>The Regions provided documentation that all managers and inspectors required to complete the training on the Columbia Accident had completed the training.</p>						
3.3.4(2)	<i>Strengthen inspection guidance pertaining to the periodic review of operating experience.</i>	High	OpE	12/04 Complete	05/05	NRR(IROB and IIPB)
<p>STATUS: The inspection guidance pertaining to the periodic review of operating experience has been strengthened through the revision of Problem Identification and Resolution Inspection Procedure 71152 on 9/8/03. This revision specifically requires the review, on a sampling basis, of the issues identified through the past NRC generic communications. A fundamental goal of the NRC's reactor oversight process is to establish confidence that each licensee is detecting and correcting problems. This inspection procedure's purpose is to supplement the other baseline inspection procedures and the performance indicators to provide assurance that licensees adequately identify and correct problems. Issues identified through operating experience are an integral part of that assessment.</p> <p>The effectiveness of the procedure change will be assessed as part of the annual assessment of inspection procedures required pursuant to IMC 0307, "Reactor Oversight Self-Assessment Process" Section 04.08.</p>						
3.3.5(1)	<i>Maintain expertise in the subject areas by ensuring that NRC inspector training includes: (1) boric acid corrosion effects and control; and (2) PWSCC of nickel based alloy nozzles.</i>	High	OpE	Complete	05/05	NRR (IIPB)

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
<p>STATUS: Training modules on these topics have been included in the web-based training described under 3.3.1(1). A training module on the "Effects of Corrosion," which includes both PWSCC and BACC, was completed by all current inspectors. Inspection Manual Chapter (IMC) 1245, "Inspector Qualification Program for the Office Of Nuclear Reactor Regulation Inspection Program," Appendix B, "General Proficiency-Level Training and Qualification Journal" (ML041820014), was revised to include an individual study activity requiring all qualifying inspectors to review the technical subject web-based training, which includes the training on PWSCC and BACC, as well as future web-based training items.</p>						
3.1.2(1)	<i>Revise NRC processes to require short-term and long-term follow-on verification of licensee actions to address significant generic communications (i.e., bulletins and GLs).</i>	Medium	OpE	FBD Complete	12/05	NRR (IROB)
<p>STATUS: NRR Office Instruction LIC-503, "Generic Communications Affecting Nuclear Reactor Licensees," was revised on 7/23/04. This revision incorporates actions to address the requirement for short-term and long-term follow-on verification of licensee actions to address significant generic communications. As part of the development of a bulletin or generic letter, LIC-503 requires the staff to determine what actions will be necessary for closure of the issue.</p>						
3.1.2(2)	<i>Establish review guidance for accepting owners group and industry resolutions for generic communications and generic issues. Guidance should include provisions for verifying implementation of activities by individual owners groups and licensees.</i>	Medium	OpE	06/04 Complete	06/05	NRR (DLPM, DE, DSSA)

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
<p>STATUS: NRR Office Instruction LIC-503, "Generic Communications Affecting Nuclear Reactor Licensees," was revised in July 2004 to include guidance regarding review of owners group and industry resolution to generic communications. Guidance for acceptance review was added to the sections addressing origin and closeout of generic communications. The revision requires the staff to establish review guidance for accepting owners group and industry proposals during the preparation of a generic communication and to establish criteria for accepting owners group and industry resolutions during closeout. NRR Office Instruction LIC-105, "Managing Regulatory Commitments Made by Licensees to the NRC," was revised in August 2004 to include guidance on accepting regulatory commitments made by third parties such as owners groups.</p> <p>With regard to verification, LIC-503 requires an assessment of the method to be used for verifying licensee responses during the development of a generic communication. One method is by use of a temporary instruction (TI) and guidance for the preparation of a TI is provided. An alternative to a TI is verification of licensee responses through DLPM Project Managers' audits of regulatory commitments, conducted in accordance with LIC-105. LIC-105 provides detailed guidance for conducting the audits. LIC-105 also directs lead PMs for generic communications to provide guidance for verification of owners group or industry commitments in conducting periodic audits, if they were accepted in response to the generic communication, and directs PMs to review generic communication guidance in the selection of the audit sample.</p> <p>The "Commitment Management Program," section of the DLPM Handbook provides an overview of DLPM management expectations and NRR staff guidance for handling regulatory commitments made by licensees for commercial nuclear reactors, and provides a link to LIC-105.</p>						
3.1.2(5)	<i>Conduct follow-on verification of licensee actions associated with a sample of other significant generic communications, with emphasis on those involving generic communication actions that are primarily programmatic in nature.</i>	Medium	OpE	11/04	Not Required	NRR (IROB, IIPB)
<p>STATUS: A task force performed a screening process of candidate generic communications in 07/03 using criteria approved by management. Selection of generic communications and focus areas was completed in 11/03 following management review and input on priorities. Verification plan was presented to NRR LT in 12/03 and revised to address comments. Five focus areas were initially identified. All but one (Service Water) were being addressed by other initiatives. TI 2515/159 (issued 7/29/04) directs a sample review of three plants in each region by 10/04. The review will verify licensee actions in response to GL 89-13, "Service Water Problems Affecting Safety-Related Equipment."</p>						

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
3.1.3(2)	<i>Conduct follow-on verification of licensee actions pertaining to a sample of resolved GIs.</i>	Medium	OpE	12/04	Not Required	NRR (DLPM, IIPB)
STATUS: The list of resolved GIs is being reviewed to identify a sample for verification. The initial review indicates that generic communications were generally used to resolve GIs. Therefore, this item may be subsumed by 3.1.2(5).						
3.2.3(1)	<i>Review a sample of NRC safety evaluations of owners' group submissions to identify whether intended actions that supported the bases of the NRC's conclusions were effectively implemented.</i>	Medium	OpE	12/04	Not Required	NRR (DLPM, IIPB)
STATUS: Lead PMs for owners groups and vendor organizations are reviewing submissions to identify those that are within scope of this recommendation. Verification will be by PM audit or a TI.						
3.2.3(2)	<i>Develop general inspection guidance for the periodic verification of the implementation of owners groups' commitments made on behalf of their members.</i>	Medium	OpE	12/04 Complete	06/05	NRR (DLPM, IIPB)

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
<p>STATUS: NRR Office Instruction LIC-503, "Generic Communications Affecting Nuclear Reactor Licensees," was revised in July 2004 to include guidance regarding review of owners group and industry resolution to generic communications. Guidance for acceptance review was added to the sections addressing origin and closeout of generic communications. The revision requires the staff to establish review guidance for accepting owners group and industry proposals during the preparation of a generic communication and to establish criteria for accepting owners group and industry resolutions during closeout. NRR Office Instruction LIC-105, "Managing Regulatory Commitments Made by Licensees to the NRC," was revised in August 2004 to include guidance on accepting regulatory commitments made by third parties such as owners groups.</p> <p>With regard to verification, LIC-503 requires an assessment of the method to be used for verifying licensee responses during the development of a generic communication. One method is by use of a temporary instruction (TI) and guidance for the preparation of a TI is provided. An alternative to a TI is verification of licensee responses through DLPM Project Managers' audits of regulatory commitments, conducted in accordance with LIC-105. LIC-105 provides detailed guidance for conducting the audits. LIC-105 also directs lead PMs for generic communications to provide guidance for verification of owners group or industry commitments in conducting periodic audits, if they were accepted in response to the generic communication, and directs PMs to review generic communication guidance in the selection of the audit sample.</p> <p>The "Commitment Management Program," section of the DLPM Handbook provides an overview of DLPM management expectations and NRR staff guidance for handling regulatory commitments made by licensees for commercial nuclear reactors, and provides a link to LIC-105.</p>						
3.1.2(3)	<i>Establish process guidance to ensure that generic requirements or guidance are not inappropriately affected when making unrelated changes to processes, guidance, etc. (e.g., deleting inspection procedures that were developed in response to a generic issue).</i>	Low	OpE	Complete	05/05	NRR (IIPB)

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
<p>STATUS: Language was added to IMC 0040, "Preparing, Revising and Issuing Documents for the NRC Inspection Manual" to ensure that inspection requirements are not removed that were previously inserted to emphasize licensee performance in areas identified in a Generic Letter or Nuclear Regulatory Commission (NRC) Bulletin (IMC 0040, Change Notice 04-003, ADAMS Accession # ML040690184, dated 2/2/04). This is a permanent modification to the NRC Inspection Manual, applicable to all changes.</p> <p>The revised Manual Chapter requires that the previous four (4) years of changes be reviewed. An effectiveness review will be conducted in about one year to assess whether this is a sufficient period to time to consider.</p>						
3.1.3(1)	<i>Evaluate, and revise as necessary, the guidance for proposing candidate GIs.</i>	Low	OpE	10/04	05/06	RES
<p>STATUS: The staff has completed an evaluation of the guidance for proposing candidate Generic Issues (GIs) in Management Directive (MD) 6.4, "Generic Issue Program" and the revision of the Handbook 6.4 to address the DBLLTF recommendation to enhance and simplify the process is underway. The revision will be completed by 10/04 and forwarded for inter-office/regional review and comments in accordance with MD 1.1, "NRC Management Directive System." This action will meet the intent of DBLLTF recommendation and will close out this task. The staff will, however, continue its efforts to issue the revised MD 6.4 after resolving the office/regional comments, and receiving OGC's no legal objection, as required by MD 1.1.</p>						
3.3.4(7)	<i>Reassess the basis for the cancellation of the inspection procedures that were deleted by Inspection Manual Chapter, Change Notice 01-017 to determine whether there are deleted inspection procedures that have continuing applicability. Reactivate such procedures, as appropriate.</i>	Low	OpE	03/05	05/06	NRR (IIPB)
<p>STATUS: Review of canceled procedures is in progress.</p>						

Category: Inspection Programs

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
3.2.5(2)	<i>Revise inspection guidance to provide assessments of: (1) the safety implications of long-standing, unresolved problems; (2) corrective actions phased in over several years or refueling outages; and (3) deferred modifications.</i>	High	Insp	Complete	05/05	NRR (IIPB)
<p>STATUS: Inspection Procedure (IP) 71152, "Identification and Resolution of Problems," was revised to require the resident inspector to perform a screening review of each item entered into the corrective action program. The intent of this review is to be alert to conditions such as repetitive equipment failures or human performance issues that might warrant additional follow-up through other baseline inspection procedures. IP 71152 was also revised to require a semi-annual review to identify trends that might indicate the existence of a more significant safety issue. Included within the scope of this review are repetitive or closely related issues that may have been documented by the licensee outside the normal corrective action program, such as in trend reports or performance indicators, major equipment problem lists, repetitive and/or rework maintenance lists, departmental problem/challenges lists, system health reports, quality assurance audit/surveillance reports, self-assessment reports, maintenance rule assessments, or corrective action backlog lists.</p> <p>To address the issue of deferred modifications, the staff revised IP 71111.15, "Operability Evaluations." The objective of this procedure is to review operability evaluations affecting mitigating systems and barrier integrity to ensure that operability is properly justified and the component or system remains available, such that no unrecognized increase in risk has occurred. The procedure was revised to include deferred modifications as one of the areas an inspector can assess to ensure that structures, systems, and components are capable of performing their design function.</p> <p>An effectiveness review will be conducted in about one year to assess whether the revisions to IP 71152 and 71111.15 were effective in assessing: (1) the safety implications of long-standing, unresolved problems; (2) corrective actions phased in over several years or refueling outages; and (3) deferred modifications.</p>						
3.3.5(4)	<i>Develop guidance to address the impacts of IMC 0350 implementation on the regional organizational alignment and resource allocation.</i>	High	Insp	Complete	05/05	NRR (IIPB)

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
<p>STATUS: The Inspection Program Branch completed an evaluation of the IMC 0350, "Oversight of Operating Reactor Facilities in a Shutdown Condition with Performance Problems," process in June 2003, (ML031890873). It identified the need for specifically budgeting resources for IMC 0350 inspections and providing prescriptive inspection guidelines for the process. The budget estimate was increased for FY2005 and beyond (ML033010385) to account for one IMC 0350 plant per year. IMC 0350 was revised in December 2003, to provide additional inspection guidelines.</p>						
3.3.7(2)	<p><i>Establish guidance to ensure that decisions to allow deviations from agency guidelines and recommendations issued in generic communications are adequately documented.</i></p>	High	Insp	Complete	05/05	NRR (DLPM)
<p>STATUS: Guidance on documenting decisionmaking and a training package containing applicable reference material were issued through a DLPM Handbook update and placed on the Project Managers web site in 02/03. In 04/03, the NRR Director distributed the training package to other NRR divisions by e-mail, and the Deputy EDO for Reactor Programs forwarded it by memorandum (ML030300106) to other offices and the regions. Office Instruction LIC-503, "Generic Communications Affecting Nuclear Reactor Licensees," issued in 06/03, contains guidance on documenting review and closeout of generic communications. A revision in 07/04 added the specific requirement for documenting the basis for allowing deviations from generic communications.</p>						
3.2.5(1)	<p><i>Develop inspection guidance to assess scheduler influences on outage work scope.</i></p>	Medium	Insp	Complete	05/05	NRR (IIPB)
<p>STATUS: Operability of plant structures, systems, and components was considered to be the fundamental operative regulatory requirement. Therefore, Inspection Procedure (IP) 71111.15, "Operability Evaluations," was modified (IP 71111.15, Change Notice 04-003, ML040690184, dated 2/2/04) to include deferred modifications (potentially deferred due to outage scheduler pressure as well as other reasons) as part of the population of items from which to sample for the adequacy of a licensee's process for ensuring operability of all plant systems by surveillance and continuous monitoring. In addition, existing IP 71111.20, "Refueling and Other Outage Activities" assesses the adequacy of the licensee's actions to mitigate and control the changes in plant risk during outage activities. The effectiveness of the regional implementation of these inspection procedures are evaluated annually and the results are documented in the annual Reactor Oversight Process self assessment SECY paper.</p>						

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3.3.1(2)	<i>Develop inspection guidance to assess repetitive or multiple TS action statement entries, as well as, the radiation dose implications associated with repetitive tasks.</i>	Medium	Insp	03/04 Complete	05/05	NRR (IIPB)
<p>STATUS: IMC 2515, Appendix D, Plant Status, was revised in 05/04 to evaluate licensee actions when operating with multiple or repetitive or unplanned Technical Specification (TS) action statements, including the inspection guidance for radiation dose implications associated with repetitive tasks. These procedure changes have been reviewed and commented on by the regional staff and have been approved for implementation.</p>						
3.3.3(1)	<i>As an additional level of assurance, identify alternative mechanisms to independently assess plant performance as a means of self-assessing NRC processes. Once identified, the feasibility of such mechanisms should be determined.</i>	Medium	Insp	12/04	05/06	NRR (IIPB)
<p>STATUS: IIPB evaluation (ML040750005) determined that there are several external mechanisms available for an independent assessment. IMC 0307, "Reactor Oversight Process Self-Assessment Program," will be revised to require evaluation of OSART reports.</p>						

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3.3.4(1)	<i>Review inspection guidance pertaining to refueling outage activities to determine whether the level of inspection effort and guidance are sufficient given the typically high level of licensee activity during relatively short outage periods. The impact of extended operating cycles on the opportunity to inspect inside containment and the lack of inspection focus on passive components should be reviewed. This review should also determine whether the guidance and level of effort are sufficient for inspecting other plant areas which are difficult to access or where access is routinely restricted.</i>	Medium	Insp	08/04 Complete	05/05	NRR (IIPB)
<p>STATUS: Inspection Procedure (IP) 71111.20 "Refueling and Other Outage Activities" was revised to include containment walkdowns and consideration of walkdowns in other restricted areas (IP 71111.20, Change Notice 04-011, ADAMS Accession #ML041280018, dated 5/6/04). In addition, the inspection of passive component integrity is being increased in response to DBLLTF items 3.3.2.1 and 3.3.4.3, which enhanced inspection of licensee inservice inspection activities, including boric acid corrosion control. The effectiveness of the regional implementation of these inspection procedures are evaluated annually and the results are documented in the annual Reactor Oversight Process self assessment SECY paper.</p>						
3.3.4(4)	<i>Revise IMC 0350 to permit implementation of IMC 0350 without first having established that a significant performance problem exists, as defined by the ROP.</i>	Medium	Insp	Complete	05/05	NRR (IIPB)
<p>STATUS: IMC 0350 was revised 12/31/03 to state that a plant can be considered for oversight under the IMC 0350 process when a significant operational event has occurred. The next revision to IMC 0350 will revise the title to reflect this change.</p>						

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
3.3.4(5)	<i>Review the range of NRC baseline inspections and plant assessment processes, as well as other NRC programs, to determine whether sufficient programs and processes are in place to identify and appropriately disposition the types of problems experienced at DBNPS. Additionally, provide more structured and focused inspections to assess licensee employee concerns programs and safety conscious work environment (SCWE).</i>	Medium	Insp	12/04	TBD	NRR (IIPB)
<p>STATUS: The staff is considering enhancing oversight of safety culture by increasing its focus on SCWE inspection and assessment efforts. Some of the underlying elements of safety culture, such as identification and resolution of problems, currently are assessed, to some extent, by elements of the Reactor Oversight Process. Several options for enhancing agency guidance for oversight of SCWE and safety culture were presented in a memo from the EDO to the Commissioners (SECY-04-0111, dated 7/1/04). Additional actions will be initiated following receipt of the Commission response.</p>						
3.3.7(1)	<i>Reinforce expectations for the implementation of guidance in the PM handbook for PM site visits, coordination between PMs and resident inspectors, and PM assignment duration. Reinforce expectations provided to PMs and their supervisors regarding the questioning of information involving plant operation and conditions. Also, strengthen the guidance related to the license amendment review process to emphasize the need to consider current system conditions, reliability, and performance data in SERs. In order to improve the licensing decision-making process, the NRC should strengthen its guidance regarding the verification of information provided by licensees.</i>	Medium	Insp	03/04 Complete	05/05	NRR (DLPM)

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
<p>STATUS: Several of these recommendations are addressed, at least in part, by existing procedures. The "Site Visits" section of the DLPM Handbook provides guidance to PMs on activities to be conducted during site visits. The "Morning Calls" section discusses interactions with Region personnel. Office Instruction LIC-100, Rev. 1 (issued 01/04) provides guidance on considering current conditions during licensing action reviews. Office Instruction LIC-101 provides guidance on the amendment review process and use of Requests for Additional Information for obtaining information. IP 71005 (issued 08/03) provides a mechanism for PMs to obtain region inspector support in obtaining plant information. In addition, a memo from the DLPM Director to the DLPM staff (6/25/04) provided clarification of management expectations for PM site visits, coordination between PMs and resident inspectors, PM assignment duration, questioning of information, and verifying information provided by licensees. This also has been discussed at division and management meetings. The DLPM handbook and appropriate Office Instructions will be updated to include this additional guidance by 05/05.</p>						
APP. F	<i>Conduct an effectiveness review of the actions taken in response to past lessons-learned reviews.</i>	Medium	Insp	04/04 Complete	05/06	NRR(IIPB)
<p>STATUS: A task force conducted the recommended review and issued its report on 8/2/04 (ML042110287). This completed the scope of work required by this LLTF recommendation. The task force found that previous lessons learned reviews were thorough and produced good recommendations, but these were not always effectively implemented. Future actions to address deficiencies identified in the report will be specified following management review.</p>						
3.3.2(2)	<i>Revise the overall PI&R inspection approach such that issues similar to those experienced at DBNPS are reviewed and assessed. Enhance the guidance for these inspections to prescribe the format of information that is screened when determining which specific problems will be reviewed.</i>	Low	Insp	Complete	05/05	NRR (IIPB)

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
<p>STATUS: The Inspection Program Branch issued a revision in 09/03 to Inspection Procedure (IP) 71152, "Identification and Resolution of Problems," to include an inspection requirement to perform a semi-annual review to identify trends that might indicate the existence of a more significant safety issue. Training to inform the inspection staff of this change to IP 71152 was conducted using web-based training and follow up conference calls between the regions and the program office. The training was documented as complete in May 2004.</p>						
3.3.2(3)	<i>Provide enhanced Inspection Manual Chapter guidance to pursue issues and problems identified during plant status reviews.</i>	Low	Insp	Complete	05/05	NRR (IIPB)
<p>STATUS: IP 71152, "Problem Identification and Resolution," was revised in 09/03 to require the resident inspector to perform a screening review of each item entered into the corrective action program. The intent of this review is to be alert to conditions such as repetitive equipment failures or human performance issues that might warrant additional follow-up through other baseline inspection procedures.</p>						
3.3.2(4)	<i>Revise inspection guidance to provide for the longer-term follow-up of issues that have not progressed to a finding.</i>	Low	Insp	Complete	05/05	NRR (IIPB)
<p>STATUS: IP 71152, "Problem Identification and Resolution," was revised in 09/03 and includes enhanced requirements regarding routine PI&R reviews conducted by the resident inspectors, biennial reviews of longstanding issues, and biennial reviews of licensees' operating experience issues.</p>						
3.3.3(2)	<i>Perform a sample review of the plant assessments conducted under the interim PPR [Plant Performance Review] assessment process (1998-2000) to determine whether there are plant safety issues that have not been adequately assessed.</i>	Low	Insp	03/04 Complete	05/05	NRR (IIPB)
<p>STATUS: An audit of eight PPRs (2 PPR per Region) was completed in 06/04. It did not identify any issues that had not been adequately addressed.</p>						

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
3.3.4(6)	<i>Provide ROP refresher training to managers and staff members.</i>	Low	Insp	06/04 Complete	05/05	NRR (IIPB)
<p>STATUS: Based on the Davis Besse LLTF Report, ROP Refresher Training was provided at each of the Regional Inspector Counterpart Meetings in 05/04. The topic of the ROP Refresher Training session was an individual's role in developing and maintaining a questioning attitude. The slide presentation can be found at ADAMS (ML041320101).</p> <p>The IMC1245, "Inspector Qualification Program For the Office of Nuclear Reactor Regulation Inspection Program" (ML04180012), was revised to include a requirement for annual ROP Refresher Training. IMC 1245 requires that topics for ROP refresher training will be solicited during the Spring Regional Inspector Counterpart Meetings. The IMC 1245 Management Steering Group will select the topic(s), determine the method of training, and determine the timing of the training. The NRR Inspection Program Branch will be responsible for ensuring the training is developed and implemented during the fall of each year.</p>						
3.3.5(2)	<i>Reinforce IMC 0102 expectations regarding regional manager visits to reactor sites.</i>	Low	Insp	Complete	05/05	NRR (IIPB)
<p>STATUS: Discussed at DRP/DRS counterparts meeting in July 2003. E-mail sent to all Division Directors.</p>						
3.3.5(3)	<i>Establish measurements for resident inspector staffing, including the establishment of program expectations to satisfy minimum staffing levels.</i>	Low	Insp	12/04	05/05	NRR (IIPB)
<p>STATUS: Metrics were developed in 12/03 (ML032410588). Implementation is in progress as a trial run. A final decision on implementation will be made by 12/04.</p>						

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
3.3.7(5)	<p><i>Fully implement Office Letter 900, "Managing Commitments Made by Licensees to the NRC," or revise the guidance if it is determined that the audit of licensee's programs is not required. Further, determine whether the periodic report on commitment changes submitted by licensees to the NRC should continue to be submitted and reviewed.</i></p>	Low	Insp	Complete	05/05	NRR (DLPM)

STATUS: Office Letter 900 was revised and incorporated into NRR Office Instruction LIC-105, "Managing Commitments Made by Licensees to the NRC," which was issued on 05/27/03. LIC-105 requires periodic audits (every 3 years) by the DLPM Project Managers (PMs) that consist of two major parts. The first is a verification of the licensee's implementation of NRC commitments by reviewing a sample of commitments. LIC-105 provides criteria for selection of the sample. The second is a verification of the licensee's program for managing changes to commitments. Program controls will be verified to be consistent with industry guidelines in Nuclear Energy Institute document NEI 99-04, which has been found by the NRC (SECY-00-045, dated 2/22/00) to provide acceptable guidance for managing regulatory commitments. NEI 99-04 also directs licensees to submit periodic reports of changes to commitments. This part of the audit will be done through additional samples of changes to commitments. It also includes a sample to confirm that the licensee's program ensures commitments are maintained following initial implementation. The results of the audit will be documented in a report from the PM.

In the discussion of the basis for this recommendation, the LLTF also noted that the DLPM handbook did not reference the office letter or discuss requirements for periodic audits of licensees' commitment management programs. The DLPM Handbook has been revised and the sections on "Site Visits" and "Commitment Management Program" reinforce the requirement for the periodic audits by PMs, and provides a link to LIC-105.

The intent of the LLTF recommendation has been met by the issuance of the guidance documents. A follow-up evaluation will be done after approximately one year of conducting audits to assess whether the guidance is being properly implemented and whether the periodic sampling technique provides reasonable assurance that licensee programs are effective. The guidance will be revised, if necessary, to address the evaluation findings.

Category: Barrier Integrity

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
3.1.5(1)	<i>Determine whether PWR plants should install on-line enhanced leakage detection systems on critical plant components, which would be capable of detecting leakage rates of significantly less than 1 gpm.</i>	High	BI	03/05	05/06	RES (DET) for research report NRR for remaining actions
<p>STATUS: This recommendation focuses on determining if improvements can be made in leakage detection requirements. To accomplish this, a comprehensive review and evaluation of plant experiences and current leakage detection systems will be performed by updating a similar study that was performed by Argonne National Laboratory (ANL) in the late 1980's. There are three main tasks associated with this effort. The first task is an assessment of the leakage associated with the degradation of various reactor coolant pressure boundary components. The second task is a review of leakage operating experience by developing a database of leakage events. The third task is an evaluation of the capabilities of various leakage detection systems.</p> <p>ANL submitted a draft report in 05/04. The RES and NRR staffs reviewed this draft report and provided comments to ANL. The final report will be submitted as a NUREG/CR in 12/04.</p> <p>A working group consisting of members of the NRR and RES staff has been assembled to address this recommendation. This working group will evaluate whether PWR plants should install on-line enhanced leakage detection systems based on the information contained in the ANL report as well as other pertinent plant information. This evaluation will be completed and a recommendation will be provided to NRC management by 03/05. Once the determination is made, action on this LLTF recommendation will be complete. A decision to require plants to install new equipment will require additional regulatory actions that are beyond the scope of this LLTF recommendation.</p>						

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
3.2.1(1)	<i>Improve the requirements pertaining to RCS unidentified leakage and RCPB leakage to ensure that they are sufficient to: (1) provide the ability to discriminate between RCS unidentified leakage and RCPB leakage; and (2) provide reasonable assurance that plants are not operated at power with RCPB leakage.</i>	High	BI	TBD	TBD	RES (DET) for research report NRR for remaining actions
<p>STATUS: This item is being implemented in conjunction with LLTF 3.1.5(1) above. The working group will use the ANL report as a basis for recommendations for improving leakage requirements. These recommendations will be presented to management by 03/05. If approved by management, an evaluation of the appropriate regulatory process for implementing the changes will be made by 05/05. The date for final implementation will depend on the regulatory process selected.</p>						
3.2.1(2)	<i>Develop inspection guidance pertaining to RCS unidentified leakage that includes action levels to trigger increasing levels of NRC interaction with licensees in order to assess licensee actions in response to increasing levels of unidentified RCS leakage. The action level criteria should identify adverse trends in RCS unidentified leakage that could indicate RCPB degradation.</i>	High	BI	01/05	05/05	NRR (IIPB)
<p>STATUS: IMC 2515, Appendix D, "Plant Status," was revised in 05/04 to require inspectors to trend leak rates and monitor unidentified leakage for adverse trends, and, if any are noted, to inform licensee management and regional management. The guidance also requires inspectors to review licensee procedures for action steps, as unidentified leakage approaches licensee administrative limits or technical specifications allowed values. Development of additional technical guidance, such as a tool to determine statistically if a trend exists, are under consideration.</p>						

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
3.2.1(3)	<i>Inspect plant alarm response procedure requirements for leakage monitoring systems to assess whether they provide adequate guidance for the identification of RCPB leakage.</i>	High	BI	03/05 Complete	05/05	NRR (IIPB)
<p>STATUS: To address this recommendation, inspection guidance has been revised to verify that licensees have programs and processes in place to (1) monitor plant-specific instrumentation that could indicate potential RCS leakage, (2) meet existing requirements related to degraded or inoperable leakage detection instruments, (3) use an inventory balance check when there is unidentified leakage (4) take appropriate corrective action for adverse trends in unidentified leak rates, and (5) pay particular attention to changes in unidentified leakage. The revised procedures include Inspection Manual Chapter 2515 Appendix D (Plant Status Review), Inspection Procedure 71111.22, and Inspection Procedure 71111.08. These revisions were issued in 05/04 and inspections have commenced. The assessment of the adequacy of licensee procedure requirements will be completed as part of the annual ROP self assessment process.</p>						
3.3.3(3)	<i>Continue ongoing efforts to review and improve the usefulness of the barrier integrity PIs [Performance Indicators]. These review efforts should evaluate the feasibility of establishing a PI which tracks the number, duration, and rate of primary system leaks that have been identified but not corrected.</i>	High	BI	12/05 05/05	05/06	NRR(DIPM)
<p>STATUS: The review and improvement of PIs is an ongoing process, which is performed by a working group that includes NRC and industry representatives. The first part of LLTF 3.3.3(3) is satisfied by the continuation of this ongoing process. The NRC staff has provided the industry group with a proposal to improve the usefulness of the current barrier integrity PI. The second part of the recommendation requires a feasibility evaluation of establishing an additional PI for tracking number, duration and rate of primary system leaks. If determined to be feasible, a proposed PI will be developed and submitted to the PI working group.</p>						

LLTF No.	LLTF Recommendation	Priority	Category	Target Date	Effectiveness Review	Lead Org.
3.3.4(9)	<p><i>Review PWR plant technical specifications to identify plants that have non-standard RCPB leakage requirements.</i></p> <p><i>Pursue changes to those technical specifications to make them consistent among all plants.</i></p>	High	BI	FBD Complete	Not Required	NRR (IROB)
<p>STATUS: Plants with nonstandard RCPB technical specifications were identified in a 07/03 study (ML031980277). The study indicated that only one plant had significant deviations from the standard technical specifications. Subsequently, this plant submitted a technical specification change request that will bring it into alignment with the standard technical specifications. This change was approved on 5/7/04. Based on this, no additional action will be required.</p>						
3.3.7(3)	<p><i>Evaluate the adequacy of analysis methods involving the assessment of risk associated with passive component degradation, including the integration of the results of such analyses into the regulatory decision-making process.</i></p>	Medium	BI	FBD 05/05	06/05	RES
<p>STATUS: A working group consisting of members of the NRR and RES staff has been assembled to address this recommendation. This working group will produce a report that describes the methods for assessing risk associated with passive component degradation, evaluates the adequacy of these methods, and evaluates the integration of these risk results into regulatory decision-making processes. For any weaknesses or gaps identified, recommendations for possible improvements will be made. This work associated with LLTF 3.3.7.(3) will be completed with the issuance of the report. Any follow-on work performed as a result of the report will be performed outside the scope of this Davis Besse LLTF working group.</p>						