

November 26, 2002

MEMORANDUM TO: William D. Travers  
Executive Director for Operations

FROM: Carl J. Paperiello */RA/*  
Deputy Executive Director for Materials, Research, and State Programs

SUBJECT: SENIOR MANAGEMENT REVIEW OF THE LESSONS-LEARNED  
REPORT FOR THE DEGRADATION OF THE DAVIS-BESSE NUCLEAR  
POWER STATION REACTOR PRESSURE VESSEL HEAD

### SUMMARY

The Senior Management Review Team (RT), established by your October 3, 2002 memorandum, has completed its review and evaluation of the Final Lessons-Learned Task Force (LLTF) Report for the Degradation of the Davis-Besse Nuclear Power Station Reactor Pressure Vessel Head. The RT generally agreed with the LLTF recommendations, with two exceptions, and integrated the agreed upon recommendations into four overarching categories. Action plans and/or focused activities are being developed or proposed for each of these categories, which will address the LLTF recommendations. Proposed implementation time frames are provided for those activities determined to be the highest priority. The remaining lower priority activities should be integrated into the operational planning activities for the lead offices. The agency's Planning, Budgeting, and Performance Management (PBPM) process should be used to establish completion dates and to integrate the work into other agency priorities. If you decide to implement the proposed actions, the RT recommends that a semi-annual status review be performed to evaluate the progress of activities and determine whether periodic realignments are needed.

### DISCUSSION

The RT members acknowledge that the final report articulates the thorough, focused, and thoughtful efforts of the LLTF in accomplishing its chartered duties. The RT focused its efforts on reviewing and evaluating the LLTF report and integrating the individual recommendations into a consolidated matrix to effectively address the LLTF findings. Early in its review, the RT recognized that some of the specific recommendations would overlap in their implementation. The RT viewed one of its tasks as individually reviewing each recommendation and discerning

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which of the recommendations could be combined to form a consolidated approach to implementation. Therefore, the RT grouped the recommendations into a matrix format with four overarching categories as discussed below. The matrix is provided as Attachment 1 and includes a prioritization of activities, time-frames for completion, and designation of the lead office responsible for coordinating the activities. The LLTF worked from 5 general operational and regulatory areas, which included a total of 18 detailed areas, to develop 51 specific recommendations to address matters related to the pressure vessel head degradation.

The RT evaluation centered on combining some of the LLTF recommendations that generally had the highest priority into a number of focused planned activities and action plans. The RT placed the highest priority on those recommendations that appeared to be more closely linked to the contributing causes that led to the Davis-Besse event, as well as actions needed to respond to the vessel head corrosion phenomenon. The remaining lower priority recommendations are expected to be integrated into the assigned office operational planning activities. The agency's PBPM process should be used to establish completion dates and to integrate the work into other agency priorities.

The RT recognized that several of the LLTF recommended actions are already underway or have previously been completed by the program offices. These items are identified as "STATUS" items in the "RT Proposed Actions" column of Attachment 1. The RT did not verify whether the current or completed actions fully satisfy the LLTF recommendations. Consequently, the RT recommends that the lead program offices evaluate these actions against the LLTF recommendations to determine if those actions satisfy the recommendations. In addition, the RT notes that NRR is coordinating the development of an action plan with a number of activities, particularly short-term activities, associated with those facilities affected with vessel head penetration nozzle cracking. This action plan is expected to incorporate the applicable recommendations from Attachment 1. Additional insights and recommendations may be forthcoming from other NRC reviews that are currently ongoing. These will be incorporated into the planned activities, as they become available.

The RT believes that the Attachment 1 planned activities can be grouped appropriately into one of four overarching categories, which encompass the LLTF Report recommendations. The specific activities contained in Attachment 1 were consolidated under each of these categories. The proposed actions for addressing each of the LLTF recommendations have been prioritized, with the high priority items requiring focused attention and coordination, and the medium and low priority items relegated to the lead program offices for inclusion into their operational planning and PBPM activities.

1. *Assessment of Stress Corrosion Cracking (eight LLTF recommendations)*

The RT recommends that NRR lead the effort, with RES support, to develop an action plan to address the issue of nickel-based alloy nozzle susceptibility to stress corrosion cracking, including other susceptible components, and boric acid corrosion of carbon steel. This will implement LLTF recommendation 3.1.1(1).

The RT disagreed with LLTF 3.1.2(4) as noted in Attachment 1.

Five recommendations, LLTF 3.3.2(1), 3.2.2(1), 3.3.4(3), 3.3.4 (8), and 3.1.4(1) appear to be included in NRR's "Vessel Head Penetration and Vessel Head Inspection Criteria Action Plan," currently under development. These recommendations should be managed within that plan.

The RT considers LLTF Item 3.3.7(6) is low priority and should be incorporated into NRR's operational planning, through PBPM.

2. *Assessment of Operating Experience, Integration of Operating Experience into Training, and Review of Program Effectiveness. (seventeen LLTF recommendations)*

The RT views seven LLTF recommendations, 3.1.6(1), 3.1.6(2), 3.1.6(3), 3.2.4(1), 3.3.4(2), 3.3.1(1), and 3.3.5(1), as one high priority action item. The RT recommends that NRR lead the effort with RES, the TTC, and the Regions supporting to develop an action plan to address these recommendations. The RT considers this action plan an important contributor to enhancing staff ability to respond to off-normal conditions.

The RT disagreed with LLTF Item 3.3.7(4) as noted in Attachment 1. However, the RT's dismissal of the recommendation does not preclude the review of any piece of technical literature by the staff in the normal course of maintaining professional awareness.

Nine LLTF recommendations of medium and low priority 3.1.2(1), 3.1.2(2), 3.2.3(1), 3.2.3(2), 3.1.2(5), 3.1.3(2), 3.1.2(3), 3.1.3(1), and 3.3.4(7) should be incorporated into the lead program office operational planning through PBPM.

3. *Evaluation of Inspection, Assessment, and Project Management Guidance (nineteen LLTF recommendations)*

The RT considers LLTF recommendations 3.2.5(2), 3.3.5(4), and 3.3.7(2) to be of high priority with a short implementation schedule. These items should be completed in time to be addressed in the FY 2005 budget preparation cycle. The RT recommends that NRR assess whether its modifications of Inspection Procedure (IP) 71152 address the LLTF recommendation 3.2.5(2).

The RT reviewed the LLTF recommendation on Appendix F regarding past lessons-learned reviews. The RT agreed that the scope of review should be the assessment of issues identified in Table F-1 of the LLTF Report to determine whether the recommendations from previous lessons-learned reviews have been adequately implemented.

Fifteen recommendations 3.3.4(5), 3.2.5(1), 3.3.1(2), 3.3.1(1), 3.3.7(1), 3.3.4(1), 3.3.4(4), 3.3.2(2), 3.3.2(3), 3.3.2(4), 3.3.3(2), 3.3.4(6), 3.3.5(2), 3.3.5(3), and 3.3.7(5) should be incorporated into NRR's operational planning through PBPM.

4. *Assessment of the Barrier Integrity Requirements (seven LLTF Recommendations)*

The RT views six of the LLTF recommendations as one high priority activity. These items include 3.2.1(1), 3.1.5(1), 3.2.1(2), 3.3.3(3), 3.2.1(3), and 3.3.4(9). The RT recommends that RES, leading the effort with the support of NRR, develop an action plan to define the scope of the effort and the resources required to assess Barrier Integrity Requirement.

The RT notes that RES has an ongoing program that should include LLTF recommendation 3.3.7(3). This should be reviewed to ensure this recommendation is sufficiently encompassed by this program.

Progress for individual activities under each category should be managed through individual office operational planning activities, which are reviewed quarterly. No resource estimates have been made for implementing individual activities. These estimates should be projected as each of the operational planning activities are developed for the overarching categories.

Many of the issues identified in the LLTF report have implications affecting other NRC programs. Although NMSS was not explicitly tasked with activities from the LLTF recommendations, the Office developed an Assessment Plan for examining potential opportunities for improvement in program effectiveness. Attachment 2 provides the Assessment Plan developed by NMSS, which prioritizes the LLTF recommendations for completion of expected follow-on activities. NMSS is proposing to reprogram its resources for implementing the Assessment Plan and operational planning using PBPM.

Attachments:

1. RT Matrix
2. NMSS Assessment Plan

The RT notes that RES has an ongoing program that should include LLTF recommendation 3.3.7(3). This should be reviewed to ensure this recommendation is sufficiently encompassed by this program.

Progress for individual activities under each category should be managed through individual office operational planning activities, which are reviewed quarterly. No resource estimates have been made for implementing individual activities. These estimates should be projected as each of the operational planning activities are developed for the overarching categories.

Many of the issues identified in the LLTF report have implications affecting other NRC programs. Although NMSS was not explicitly tasked with activities from the LLTF recommendations, the Office developed an Assessment Plan for examining potential opportunities for improvement in program effectiveness. Attachment 2 provides the Assessment Plan developed by NMSS, which prioritizes the LLTF recommendations for completion of expected follow-on activities. NMSS is proposing to reprogram its resources for implementing the Assessment Plan and operational planning using PBPM.

Attachments:

1. RT Matrix
2. NMSS Assessment Plan

\*See previous concurrence

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## Review Team (RT) Matrix for Addressing Recommendations from the Davis-Besse Lessons Learned Task Force (LLTF)

<p>Notes. Priority: Low; Medium; High            Implementation Schedule: Short=6-12 mos.; Intermediate=12-24 mos.; Long=beyond 24 mos.; PBPM=Planning, Budgeting &amp; Performance Management            Response Org. is the NRC organization that will lead the implementation. Supporting organizations are noted.</p>						
LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
<b>1. Assessment of Stress Corrosion Cracking</b>						
3.1.1(1)	<i>The NRC should assemble foreign and domestic information concerning Alloy 600 (and other nickel based alloys) nozzle cracking and boric acid corrosion from technical studies, previous related generic communications, industry guidance, and operational events. Following an analysis of nickel based alloy nozzle susceptibility to stress corrosion cracking (SCC), including other susceptible components, and boric acid corrosion of carbon steel, the NRC should propose a course of action and an implementation schedule to address the results.</i>	Yes	High	Long	NRR (DE) and RES	<p>The RT agrees with this recommendation. The RT recommends that NRR with RES support develop an action plan to address this item.</p> <p>STATUS: This item is addressed in an action plan currently being developed by NRR.</p>

Notes. Priority: Low; Medium; High  
 Implementation Schedule: Short=6-12 mos.; Intermediate=12-24 mos.; Long=beyond 24 mos.; PBPM=Planning, Budgeting & Performance Management  
 Response Org. is the NRC organization that will lead the implementation. Supporting organizations are noted.

LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
3.1.2(4)	<i>The NRC should review industry approaches used by licensees to consider economic factors involved with VHP nozzle inspection and repair. This might include conducting representative cost/benefit analyses of non-visual inspections of VHP nozzles that would consider factors involving dose, cost, and time involved. The NRC should consider this information in the formulation of future positions regarding the performance of non-visual inspections of VHP nozzles.</i>	No	N/A	N/A	N/A	The RT disagrees with this recommendation. NRC's role is to establish regulatory requirements. New requirements must meet the provisions of §50.109, and consider cost/benefit in cases where requirements are not needed to ensure adequate protection of the public or to comply with existing regulations. Options around how licensees implement NRC requirements are prescribed in NRC guidance documents. Licensees may either elect to follow NRC guidance or choose alternative approaches, based on economic or other factors, as long as they meet the underlying requirements.
3.3.2(1)	<i>The NRC should develop inspection guidance for the periodic inspection of PWR plant boric acid corrosion control programs.</i>	Yes	High	Long	NRR(IIPB, DE)	The RT agrees with recommendations 3.3.2(1) and 3.2.2(1), and considers that these recommendations should be combined into one action.

Notes. Priority: Low; Medium; High  
 Implementation Schedule: Short=6-12 mos.; Intermediate=12-24 mos.; Long=beyond 24 mos.; PBPM=Planning, Budgeting & Performance Management  
 Response Org. is the NRC organization that will lead the implementation. Supporting organizations are noted.

LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
3.2.2(1)	<i>The NRC should inspect the adequacy of PWR 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>	Yes			NRR (IIPB, DE) and RES	STATUS: This item is addressed in an action plan currently being developed by NRR. The implementation of these activities has already begun thru Bulletin 2002-01. A TI was written in conjunction with Bulletin 2002-02. Upon completion of TI 2515/150 a review will be conducted to decide if periodic inspection guidance in this area is warranted. RES to work with ASME to address code improvements for boric acid corrosion.
3.3.4(3)	<i>The NRC should develop inspection guidance or revise existing guidance, such as IP 71111.08, to ensure that VHP nozzles and the RPV head area are periodically reviewed by the NRC during licensee ISI activities. Such NRC inspections could be accomplished by direct observation, remote video observation, or by the review of videotapes. General guidance pertaining to boric acid corrosion observations should be included in IP 71111.08.</i>	Yes	High	Long	NRR (IIPB, DE)	The RT agrees with this recommendation. ALARA should also be considered when the guidance is revised.  STATUS: This item is addressed in an action plan currently being developed to address this overarching area. This effort has already begun with a TI issued. Following the completion of the TI a review will be conducted to decide whether periodic inspection guidance needs to be developed.



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LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
3.3.4(8)	<i>The NRC should encourage ASME 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. The NRC should also encourage ASME Code requirement changes for the conduct of non-visual NDE inspections of VHP nozzles. Alternatively, the NRC should revise 10 CFR 50.55a to address these areas.</i>	Yes	High	Long	RES and NRR(DE)	The RT agrees with this recommendation.  STATUS: This activity is currently being performed. This item will be addressed in an action plan currently being developed.
3.1.4(1)	<i>The NRC should determine if it is appropriate to continue using the existing SCC models as a predictor of VHP nozzle PWSCC susceptibility given the apparent large uncertainties associated with the models. The NRC should determine whether additional analysis and testing are needed to reduce uncertainties in these models relative to their continued application in regulatory decision making.</i>	Yes	Medium	PBPM	RES and NRR (DE)	The RT agrees with this recommendation.  STATUS: This item is addressed in the action plan currently being developed. NRR should review the existing user need to make sure it encompasses the recommendation.
3.3.7(6)	<i>The NRC should 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>	Yes	Low	PBPM	NRR (DE, DLPM)	The RT agrees with this recommendation to perform an evaluation of the need to submit ISI reports for review.

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LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
<b>2. Assessment of Operating Experience, Integration of Operating Experience into Training, and Review of Program Effectiveness</b>						
3.1.6(1)	<i>The NRC should take the following steps to address the effectiveness of its 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>	Yes	High	Long	NRR (RORP) lead with TTC, RES, and REGIONS supporting	The RT agrees with recommendations 3.1.6(1), 3.1.6(2), 3.1.6(3), 3.2.4(1), 3.3.4.(2), 3.3.1(1), and 3.3.5(1); and considers that these recommendations should be combined into one activity. The RT recommends that NRR; with RES, TTC, and the Regions supporting; develop an action plan to address these recommendations. This is a major effort that will require an action plan to better define the scope of this effort, coordinate responsibilities for the individual items and determine resource requirements.
3.1.6(2)	<i>The NRC should update its operating experience guidance documents.</i>	Yes			NRR (RORP)	
3.1.6(3)	<i>The NRC should enhance the effectiveness of its processes for the collection, review, assessment, storage, retrieval, and dissemination of foreign operating experience.</i>	Yes			NRR (RORP) and RES	

Notes. Priority: Low; Medium; High  
 Implementation Schedule: Short=6-12 mos.; Intermediate=12-24 mos.; Long=beyond 24 mos.; PBPM=Planning, Budgeting & Performance Management  
 Response Org. is the NRC organization that will lead the implementation. Supporting organizations are noted.

LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
3.2.4(1)	<i>The NRC should assess the scope and adequacy of its requirements governing licensee review of operating experience.</i>	Yes			NRR (IQPB)	
3.3.4(2)	<i>The NRC should strengthen its inspection guidance pertaining to the periodic review of operating experience. The level of effort should be changed, as appropriate, to be commensurate with the revised guidance.</i>	Yes			NRR (IIPB)	
3.3.1(1)	<i>The NRC should 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 event relative to symptoms and indications of RCS 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>	Yes			NRR (IIPB) lead with TTC and REGIONS supporting	

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LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
3.3.5(1)	<i>The NRC should maintain its 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>	Yes			NRR (IIPB) lead with TTC and RES supporting	
3.3.7(4)	<i>The NRC should revise the criteria for the review of industry topical reports to allow for NRC staff review of safety-significant reports that have generic implications but have not been formally submitted for NRC review in accordance with the existing criteria.</i>	No	N/A	N/A	N/A	The RT disagrees with this recommendation. NRC regulations included in Appendix B to 10 CFR Part 50 and §50.59 prescribe processes for making changes to a nuclear power plant. These are designed, in part, to ensure changes that have more than a negligible impact on safety are reviewed by the NRC before they are implemented by the licensee. Topical Reports that are not submitted to the NRC in response to these requirements or other reporting requirements (e.g. Part 21, §50.73) are not formally reviewed today with the SER, nor can they be reviewed by the NRC in the future. It should be noted that review of industry research reports by RES may occur as part of its role of maintaining up-to-date understanding of technical issues and as part of planning and coordinating research activities.

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LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
3.1.2(1)	<i>The NRC should revise its 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>	Yes	Medium	PBPM	NRR (RORP and IIPB)	The RT agrees with this recommendation.
3.1.2(2)	<i>The NRC should establish review guidance for accepting owners group and industry resolutions for generic communications and generic issues. Such guidance should include provisions for verifying implementation of activities by individual owners groups and licensees.</i>	Yes	Medium	PBPM	NRR (RPRP, IIPB)	The RT agrees with recommendations 3.1.2(2), 3.2.3(1), and 3.2.3(2); and considers that these recommendations should be combined into one activity.
3.2.3(1)	<i>The NRC should 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>	Yes			NRR (DLPM, IIPB)	
3.2.3(2)	<i>The NRC should develop general inspection guidance for the periodic verification of the implementation of owners groups' commitments made on behalf of their members.</i>	Yes			NRR (DLPM, IIPB)	

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LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
3.1.2(5)	<i>The NRC should 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>	Yes	Medium	PBPM	NRR (RORP, IIPB)	The RT agrees with recommendations 3.1.2(5) and 3.1.3(2), but considers that these activities should be combined. Both 3.1.2(5) and 3.1.3(2) are retrospective.
3.1.3(2)	<i>The NRC should conduct follow-on verification of licensee actions pertaining to a sample of resolved GIs.</i>	Yes			NRR (DLPM, IIPB)	
3.1.2(3)	<i>The NRC should 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>	Yes	Low	PBPM	NRR (IIPB)	The RT agrees with this recommendation.
3.1.3(1)	<i>The NRC should evaluate, and revise as necessary, the guidance for proposing candidate GIs.</i>	Yes	Low	PBPM	RES	The RT agrees with this recommendation for Management Directive 6.4.  STATUS: RES will undertake this as part of its overall assessment of the Management Directive.

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LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
3.3.4(7)	<i>The NRC should 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>	Yes	Low	PBPM	NRR (IIPB)	The RT agrees with this recommendation. The RT considers that this activity should be performed in conjunction with the ROP self assessment.

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LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
<b>3. Evaluation of Inspection, Assessment, and Project Management Guidance</b>						
3.2.5(2)	<i>The NRC should revise its 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>	Yes	High	Short	NRR (IIPB)	The RT agrees with this recommendation.  STATUS: NRR has completed implementation of this recommendation by modifying IP 71152, PI&R.
3.3.5(4)	<i>The NRC should develop guidance to address the impacts of IMC 0350 implementation on the regional organizational alignment and resource allocation.</i>	Yes	High	Short	NRR (IIPB) lead with REGIONS supporting	The RT agrees with this recommendation.
3.3.7(2)	<i>The NRC should establish guidance to ensure that decisions to allow deviations from agency guidelines and recommendations issued in generic communications are adequately documented.</i>	Yes	High	Short	NRR (DLPM)	The RT agrees with this recommendation with the following clarification "The NRC should establish guidance to ensure the staff evaluations of licensee responses to generic communications are documented in sufficient detail to allow for public consideration of the bases for the staff's conclusions."
APP. F	<i>The NRC should conduct an effectiveness review of the actions taken in response to past lessons-learned reviews.</i>	Yes	Medium	PBPM	EDO	The RT recommends that the issues identified in Table F-1 of the LLTF Report be reviewed to determine whether the recommendations from previous Lessons-learned reviews have been adequately implemented.



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LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
3.3.4(5)	<i>The NRC should 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, the NRC should provide more structured and focused inspections to assess licensee employee concerns programs and safety conscious work environment.</i>	Yes	Medium	PBPM	NRR (IIPB)	The RT agrees with this recommendation, with the following clarification. The RT considers that the fundamental difficulty associated with this event was the inability of the licensee and NRC to recognize the potential problem associated with various indicators, which will be addressed in activities associated with Recommendation 3.3.4(6). Also, the Commission has been provided a policy options paper (SECY-02-0166) addressing employee protection and safety conscious work environment.
3.2.5(1)	<i>The NRC should develop inspection guidance to assess scheduler influences on outage work scope.</i>	Yes	Medium	PBPM	NRR (IIPB)	The RT agrees with this recommendation. The RT considers that the regulatory basis should be confirmed before determining whether the guidance should be revised.
3.3.1(2)	<i>The NRC should develop inspection guidance to assess repetitive or multiple TS action statement entries, as well as, the radiation dose implications associated with repetitive tasks.</i>	Yes	Medium	PBPM	NRR (IIPB)	The RT agrees with this recommendation. The RT considers that this guidance should be linked back to the licensee's corrective action program. Specific guidance could be added to IP 71152 to highlight this concern.

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3.3.3(1)	<i>As an additional level of assurance, the NRC should 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>	Yes	Medium	PBPM	NRR (IIPB and EDO)	The RT agrees with this recommendation. However, the RT believes that this recommendation should focus on review of existing mechanisms to see if better use can be made of INPO, OSART, etc., assessments.
3.3.7(1)	<i>The NRC should 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. The NRC should reinforce expectations provided to PMs and their supervisors regarding the questioning of information involving plant operation and conditions. Also, the NRC should 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>	Yes	Medium	PBPM	NRR (DLPM)	The RT agrees with this recommendation. This should include review of PM handbook and alignment of expectations with practice.

Notes. Priority: Low; Medium; High Implementation Schedule: Short=6-12 mos.; Intermediate=12-24 mos.; Long=beyond 24 mos.; PBPM=Planning, Budgeting & Performance Management Response Org. is the NRC organization that will lead the implementation. Supporting organizations are noted.						
LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
3.3.4(1)	<i>The NRC should review its 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>	Yes	Medium	PBPM	NRR (IIPB)	The RT agrees with this recommendation. The RT considers that this activity should be expanded to consider establishing NRC guidance regarding scope and expectations for inspection of containment systems and material conditions.
3.3.4.(4)	<i>The NRC should 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>	Yes	Medium	PBPM	NRR (IIPB)	The RT agrees with this recommendation. The RT believes the revision should include events and conditions, in addition to performance problems.
3.3.2(2)	<i>The NRC should revise the overall PI&amp;R inspection approach such that issues similar to those experienced at DBNPS are reviewed and assessed. The NRC should enhance the guidance for these inspections to prescribe the format of information that is screened when determining which specific problems will be reviewed.</i>	Yes	Low	PBPM	NRR (IIPB)	The RT agrees with this recommendation.

Notes. Priority: Low; Medium; High Implementation Schedule: Short=6-12 mos.; Intermediate=12-24 mos.; Long=beyond 24 mos.; PBPM=Planning, Budgeting & Performance Management Response Org. is the NRC organization that will lead the implementation. Supporting organizations are noted.						
LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
3.3.2(3)	<i>The NRC should provide enhanced Inspection Manual Chapter guidance to pursue issues and problems identified during plant status reviews.</i>	Yes	Low	PBPM	NRR (IIPB)	The RT agrees with recommendations 3.3.2(3) and 3.3.2(4), and believes that these recommendations should be combined. The RT recommends that NRR review IP 71152 to determine that the LLTF concerns were addressed.
3.3.2(4)	<i>The NRC should revise its inspection guidance to provide for the longer-term follow-up of issues that have not progressed to a finding.</i>	Yes				STATUS: NRR believes these two recommendations are already addressed by changes that were made in January 2002 to IP 71152.
3.3.3(2)	<i>The NRC should perform a sample review of the plant assessments conducted under the interim PPR assessment process (1998-2000) to determine whether there are plant safety issues that have not been adequately assessed.</i>	Yes	Low	PBPM	NRR (Regions and IIPB)	The RT agrees with this recommendation. The RT believes PPR letters from 1998 to 2000 should be considered during annual assessments as a way to examine long-term trends.
3.3.4(6)	<i>The NRC should provide ROP refresher training to managers and staff members.</i>	Yes	Low	PBPM	NRR (IIPB) lead with TTC supporting	The RT agrees with this recommendation. The RT considers that this activity should be focused on the scope of the ROP, to reinforce a questioning attitude, and to receive feedback from the resident inspectors on any misconceptions of the ROP during the annual assessments.
3.3.5(2)	<i>The NRC should reinforce IMC 0102 expectations regarding regional manager visits to reactor sites.</i>	Yes	Low	PBPM	NRR (IIPB)	The RT agrees with this recommendation. The RT considers this activity should emphasize coaching and testing and knowledge sharing.

Notes. Priority: Low; Medium; High Implementation Schedule: Short=6-12 mos.; Intermediate=12-24 mos.; Long=beyond 24 mos.; PBPM=Planning, Budgeting & Performance Management Response Org. is the NRC organization that will lead the implementation. Supporting organizations are noted.						
LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
3.3.5(3)	<i>The NRC should establish measurements for resident inspector staffing, including the establishment of program expectations to satisfy minimum staffing levels.</i>	Yes	Low	PBPM	NRR (IIPB)	The RT agrees with this recommendation. The RT considers that the inspector coverage and turnover at a plant should also be included.
3.3.7(5)	<i>The NRC should 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, the NRC should determine whether the periodic report on commitment changes submitted by licensees to the NRC should continue to be submitted and reviewed.</i>	Yes	Low	PBPM	NRR (DLPM)	The RT agrees with this recommendation.

Notes. Priority: Low; Medium; High Implementation Schedule: Short=6-12 mos.; Intermediate=12-24 mos.; Long=beyond 24 mos.; PBPM=Planning, Budgeting & Performance Management Response Org. is the NRC organization that will lead the implementation. Supporting organizations are noted.						
LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
<b>4. Assessment of Barrier Integrity Requirements</b>						
3.2.1(1)	<i>The NRC should 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>	Yes	High	Long	RES lead supported by NRR	The RT agrees with recommendations 3.2.1(1), 3.1.5(1), 3.2.1(2), 3.2.1(3), 3.3.3(3) and 3.3.4(9); and considers that these recommendations should be combined into one activity. The RT recommends that RES develop an action plan to review requirements for RCS leakage and determine if requirements should be revised.  This is a major effort that will require an action plan to better define the scope of this effort, coordinate responsibilities for the individual items, and determine resource requirements.
3.1.5(1)	<i>The NRC should 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>	Yes				

Notes. Priority: Low; Medium; High  
 Implementation Schedule: Short=6-12 mos.; Intermediate=12-24 mos.; Long=beyond 24 mos.; PBPM=Planning, Budgeting & Performance Management  
 Response Org. is the NRC organization that will lead the implementation. Supporting organizations are noted.

LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
3.2.1(2)	<i>The NRC should 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>	Yes				
3.3.3(3)	<i>The NRC should continue ongoing efforts to review and improve the usefulness of the barrier integrity PIs. 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>	Yes			NRR (IIPB) and RES	
3.2.1(3)	<i>The NRC should inspect plant alarm response procedure requirements for leakage monitoring systems to assess whether they provide adequate guidance for the identification of RCPB leakage.</i>	Yes			NRR (IIPB)	
3.3.4(9)	<i>The NRC should review PWR plant TS to identify plants that have non-standard RCPB leakage requirements and should pursue changes to those TS to make them consistent among all plants.</i>	Yes			NRR (DRIP)	

Notes. Priority: Low; Medium; High Implementation Schedule: Short=6-12 mos.; Intermediate=12-24 mos.; Long=beyond 24 mos.; PBPM=Planning, Budgeting & Performance Management Response Org. is the NRC organization that will lead the implementation. Supporting organizations are noted.						
LLTF No.	LLTF Recommendation	RT Accept	Priority	Implement. Schedule	Response Org.	RT Proposed Actions
3.3.7(3)	<i>The NRC should 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>	Yes	Medium	PBPM	RES	The RT agrees with this recommendation.  STATUS: RES will assess its ongoing programs related to component degradation and evaluate methods to better incorporate passive system degradation in risk-informed decision making.



**Office of Nuclear Material Safety and Safeguards**  
**Areas for Assessment**  
**Davis-Besse Lessons Learned Task Force (DBLLTF) Recommendations**

Notes. Priority: L=Low; M=Medium; H=High Implementation Schedule: Short =6-12 months; Intermediate=12-24 months; Long=beyond 24 months Responsible Org. is the NRC organization that will lead the implementation. Supporting organizations are noted.				
Areas for Assessment	Priority	Implemt. Schedule	Responsible Org.	DBLLTF Recommendations
<b>Integrated Assessment of Nuclear Material Safety Programs</b>				
Inspection and licensee performance assessment could be a more integrated process. Elements for further consideration may include data analysis, evaluation of inspection results, and consideration of risk insights. A plan for making the process more integrated is already in progress, as provided in the draft Commission paper on the Agency Action Review Meeting (AARM). The AARM should be reexamined periodically to test and confirm the quality and effectiveness of AARM processes.	MEDIUM	SHORT	NMSS	3.1.2(3); 3.2.1(2); 3.2.1(3); 3.2.5(1); 3.2.5(2); 3.3.2(4); 3.3.3(1); 3.3.3(2); 3.3.3(3); 3.3.4(5); 3.3.4(7); 3.3.7(3)
<b>Analysis and Use of Operating Experience Information</b>				
The recommendations in the April 2001 Final Report of the Working Group on Event Reporting should be reexamined, as appropriate, with regard to the information collected, analyzed, and used by NRC and the Agreement States.	MEDIUM	SHORT	NMSS	3.1.1(1); 3.1.6(1); 3.1.4(1); 3.1.5(1); 3.1.6(2); 3.1.6(3); 3.2.4(1); 3.3.3(3); 3.3.4(2)
Operating experience information and the results of evaluations could be better communicated, particularly for foreign events. Emergent issues and trends are routinely discussed during regional counterpart meetings and are proposed for discussion at the AARM. Broader dissemination or discussion, with NRC Regions and Agreement States, of issues and evaluations should be considered.	MEDIUM	INTER.	NMSS	

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 Responsible Org. is the NRC organization that will lead the implementation. Supporting organizations are noted.

Areas for Assessment	Priority	Implemt. Schedule	Responsible Org.	DBLLTF Recommendations
<b>Analysis and Use of Operating Experience Information</b> (continued)				
<p>The Nuclear Materials Events Database (NMED) is the official NRC database for nuclear materials events. NMED contains the information on the occurrence, description, and resolution of material events in the U.S. reported in accordance with 10 CFR reporting requirements, or equivalent Agreement State reporting requirements, and other regulatory tools (e.g., NRC Bulletin 91-01, "Reporting Loss of Criticality Controls"). For NRC events, documentation of prompt telephonic reports to the NRC Operations Center, copies of licensee reports, reference to NRC inspection reports and enforcement actions, and other documents (ENs, PNs, etc.) are provided to the NMED contractor for entry into the database. NRC should examine methods for soliciting user feedback for improvements to NMED. Future improvements to NMED should derive from needs identified through the integrated assessment and operating experience programs.</p>	LOW	LONG	NMSS	
<p>Agreement State reporting is evaluated through the Integrated Materials Performance Evaluation Program (IMPEP). NRC may want to better communicate the information reported by NRC and Agreement States and how it can be used to enhance the regulatory decision-making process. Periodic meetings with Agreement States should discuss significant events, emerging technologies, and possible generic issues.</p>	MEDIUM	LONG	STP	

Notes. Priority: L=Low; M=Medium; H=High Implementation Schedule: Short =6-12 months; Intermediate=12-24 months; Long=beyond 24 months  
Responsible Org. is the NRC organization that will lead the implementation. Supporting organizations are noted.

Areas for Assessment	Priority	Implemt. Schedule	Responsible Org.	DBLLTF Recommendations
<b>Use of Risk Information in Regulatory Decisions</b>				
It is possible for NMSS licensed activities and events to be improperly assumed to be of low safety significance without having a thorough investigation and/or risk analysis, with appropriate consideration of uncertainties. Likewise, it is possible for actions to tend toward risk-based decision-making rather than risk-informed, with appropriate balance of defense in depth. The appropriate use and potential misuse of risk information may warrant further discussion and reinforcement.	MEDIUM	LONG	NMSS	3.3.7(3)
On an office-wide basis, NMSS should consider how risk has been characterized in regulated activities (i.e., risk overlay). NRC should consider how consequences are used to characterize the significance of events, generic issues, and trends. NRC may want to consider evaluating a representative sample of generic issues and to consider how they were treated in terms of risk (i.e., gap analysis). Program/activity selection should be based on the potential consequences of the licensed activity.	MEDIUM	LONG	NMSS	
<b>Verification of the Adequacy of Licensee and Regulatory Actions</b>				
More could be done to verify short-term licensee actions in response to generic communications. Few NRC Generic Letters and Bulletins are used for NMSS licensed activities. Most are Information Notices that do not require a response. The staff recently required confirmation of licensee actions for Regulatory Issue Summaries related to the Orange threat-level announcement. NRC and Agreement States may want to examine a sample a recently issued generic communication to evaluate the adequacy of licensee response to emergent safety issues and/or trends.	LOW	LONG	NMSS	3.1.1(1); 3.1.2(1); 3.1.2(2); 3.1.2(3); 3.1.2(5); 3.1.3(1); 3.1.3(2); 3.1.6(1); 3.2.1(1); 3.2.2(1); 3.2.3(2); 3.2.5(2); 3.3.4(2); 3.3.4(8); 3.3.4(9); 3.3.7(2);

Notes. Priority: L=Low; M=Medium; H=High Implementation Schedule: Short =6-12 months; Intermediate=12-24 months; Long=beyond 24 months Responsible Org. is the NRC organization that will lead the implementation. Supporting organizations are noted.				
Areas for Assessment	Priority	Implemt. Schedule	Responsible Org.	DBLLTF Recommendations
<b>Verification of the Adequacy of Licensee and Regulatory Actions</b> (continued)				
Management of aging, passive component degradation, and lack of engineering rigor are currently being addressed in applicable NMSS licensed activities (e.g., fuel cycle, waste management, etc.). However, NRC and Agreement States may want to examine a sample of older generic issues to verify the adequacy of actions by both NRC (e.g., via a Temporary Instruction) and licensees in achieving meaningful and lasting closure.	LOW	LONG	NMSS	
The Generic Safety Issue (GSI) process is sufficiently codified in NRC guidance. Management Directive 6.4 was recently revised to enhance guidance for processing of GSIs in NMSS-regulated activities but could be better communicated to the staff. NRC should reexamine MD 6.4 to consider DBLLTF recommendations applicable to NMSS and lessons learned, relative to the process implemented by NRR and RES for GSIs.	LOW	LONG	NMSS	
<b>Implementation of Management Expectations</b>				
Reinforcement of management expectations concerning the importance of the NRC staff questioning licensee assumptions, analyses, and conclusions is an ongoing process for both licensing and inspection. Inspection procedures are designed to lead to predictable outcomes, but should not constrain the expectation that inspectors are to demonstrate questioning attitudes in observing licensee performance. Inspection and licensing programs should take advantage of risk insights, importance to compliance, the staff's and management experience, wisdom, and instincts in looking at issues for potential problems.	MEDIUM	SHORT	NMSS	3.2.5(1); 3.3.1(1); 3.3.2(1); 3.3.2(2); 3.3.2(4); 3.3.4(2); 3.3.4(3); 3.3.4(4); 3.3.4(5); 3.3.5(2); 3.3.7(1); 3.3.7(5)

Notes. Priority: L=Low; M=Medium; H=High Implementation Schedule: Short =6-12 months; Intermediate=12-24 months; Long=beyond 24 months  
 Responsible Org. is the NRC organization that will lead the implementation. Supporting organizations are noted.

Areas for Assessment	Priority	Implemt. Schedule	Responsible Org.	DBLLTF Recommendations
<b>NRC Staffing and Training</b>				
<p>NRC should consider the knowledge and skill of the generalist and specialist in responding to performance-related information (e.g., inspection findings, event reports, technical evaluations, etc.) and in deliberating Agency actions. NRC should examine and consider expanding career path opportunities for technical specialists. Success is predicated on the team concept whereby critical talent is brought to bear on issues of concern in a timely manner. NRC should examine the process of integrating generalist and specialist talent with appropriate management review and oversight. Only a limited number of NMSS licensees (FCSS) have resident inspectors.</p>	MEDIUM	INTER.	NMSS	3.3.1(1); 3.3.1(2); 3.3.4(6); 3.3.5(1); 3.3.5(3); 3.3.5(4)
<p>The focus of staffing and training should be examined relative to the Strategic Workforce Planning (SWP) initiative. The need for selected skill sets (e.g., digital instrumentation and control systems, materials degradation, etc.) will change over time and need to be anticipated/identified for consideration in the SWP. Specialized skills may not be available within the NRC. Certain skills may be needed only for a limited time and could be satisfied through contractor support.</p>	MEDIUM	INTER.	NMSS	
<b>Licensee Self-Assessment and Corrective Action Programs</b>				
<p>Most NMSS licensees do not have extensive self-assessment, corrective action, or employee-concerns programs, as relied on in the reactor oversight process. The need for more additional effort in this area should be considered based on risk and operating experience reviews.</p>	LOW	LONG	NMSS	3.1.6(1); 3.2.5(2); 3.3.7(3); 3.3.7(6); App.F