



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

OFFICE OF THE
INSPECTOR GENERAL

September 24, 2008

MEMORANDUM TO: R. William Borchardt
Executive Director for Operations

FROM: Stephen D. Dingbaum */RA/*
Assistant Inspector General for Audits

SUBJECT: STATUS OF RECOMMENDATIONS: AUDIT OF NRC'S
POWER UPRATE PROGRAM (OIG-08-A-09)

REFERENCES: DEPUTY EXECUTIVE DIRECTOR FOR REACTOR AND
PREPAREDNESS PROGRAMS MEMORANDUM DATED
APRIL 24, 2008

DIRECTOR OF OFFICE OF NUCLEAR REACTOR
REGULATION MEMORANDUM DATED
SEPTEMBER 19, 2008

Attached is the Office of the Inspector General's (OIG) analysis and status of recommendations as discussed in the agency's response dated April 24, 2008, and updated response dated September 19, 2008. Based on the response, recommendations 1 and 3 are closed, and recommendations 2, 4, 5, 6, 7, and 8 are resolved. Please provide an update on the resolved recommendations by March 15, 2009.

If you have questions or concerns, please call me at 415-5915 or Sherri Miotla, Team Leader, at 415-5914.

Attachment: As stated

cc: V, Ordaz, OEDO
J. Arildsen, OEDO
P. Shea, OEDO

**Audit Report
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Status of Recommendations

Recommendation 1: Revise IP 71004 to provide more specificity with regard to the use of the inspection procedure.

Agency Response Dated

April 24, 2008:

The staff agrees that IP 71004 should be revised to provide more in-depth guidance on the use of the inspection procedure. Staff will revise IP 71004 to provide additional guidance on inspection planning, implementation, and documentation. OIG auditors reviewed the supporting documents referenced in the agency's response. Through this review, as well as additional discussions with NRR staff, OIG concludes that the agency's actions satisfy the intent of this recommendation. Therefore, recommendation 1 is now closed. Staff is currently developing a draft revision. It will be issued following the 30-day formal regional review and comment period.

Target completion date: 08/29/08*

*This target date is for issuance of revised IP 71004. In the interim period, a draft version of IP 71004 that addresses the recommendation has been provided to the Regions for concurrent use and comment.

Agency Status

Update Dated

September 19, 2008:

IP 71004, "Power Uprate," was revised on July 1, 2008, to address this recommendation. Revised IP 71004 is available on the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML081140192. It is publicly available and has been e-mailed to your staff.

OIG Analysis:

OIG auditors reviewed the supporting documents referenced in the agency's response. Through this review, as well as additional discussions with NRR staff, OIG concludes that the agency's actions satisfy the intent of this recommendation. Therefore, recommendation 1 is now closed.

Status:

Closed.

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Status of Recommendations

Recommendation 2: Provide cross-references from baseline and other inspection procedures that are called for in IP 71004:

**Agency Response Dated
April 24, 2008:**

The staff agrees in part. Planned enhancements to IP 71004 (Recommendations 1 and 3) coupled with strengthened coordination of all aspects of power uprate activities (Recommendation 6) will enhance coordination of power uprate-related inspection activities. Revisions to the baseline and other inspection procedures are not needed to cross-reference back to IP 71004.

Target Completion Date: 02/27/09

**Agency Revised
Response Dated
September 19, 2008:**

The staff agrees that improved awareness of IP 71004 is appropriate. However, rather than cross-referencing from baseline and other inspection procedures back to IP 71004, the staff has taken other steps to improve awareness and promote communication during the execution of power uprate related inspection activities. Each regional office now has a point-of-contact that is responsible for power uprate inspection activities. Per the new NRR office instruction on power uprates (the new office instruction is discussed later in response to other Office of Inspector General recommendations), this regional point-of-contact is notified by NRR when a power uprate amendment has been accepted for technical review (and again upon approval).

The regional point-of-contact will then aid in the development of a power uprate inspection plan, and will work with the resident inspection office and regional staff to assign all necessary resources. During development of the plan, the inspection staff will utilize the Reactor Program System (RPS) to identify team inspections that may be timely in supporting IP 71004 sample requirements. All Division of Reactor Safety activities required for completion of IP 71004 will have an inspection item entered into RPS for tracking purposes. In addition, no later than February 27, 2009, IP 71004 will be revised to require all inspection procedures related to the power uprate be clearly designated as such in the RPS. This designation will make inspectors aware of the link between their procedure and the power uprate.

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Status of Recommendations

The Division of Reactor Projects branch chief for the affected plant will then review the power uprate inspection plan and obtain approval from the Regional Administrator during the mid-cycle or end-of-cycle meeting. The development and approval of this inspection plan will ensure that all levels of regional management are informed of their organization's involvement in power uprate related inspections. These enhancements to IP 71004, coupled with strengthened coordination of all aspects of power uprate activities (Recommendation 6), will ensure continued communication and awareness throughout the inspection process.

Target Completion Date: 02/27/09

OIG Analysis:

The agency's proposed alternative corrective action meets the intent of OIG's original recommendation. Recommendation 2 will be closed when NRC provides evidence that IP 71004 has been revised to require all inspection procedures related to the power uprate be clearly designated as such in the RPS.

Status:

Resolved.

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Status of Recommendations

Recommendation 3: Document or index cumulative IP 71004 and other uprate-related inspection activities in a centralized location or in an easily retrievable way so that internal and external stakeholders can easily find the results.

**Agency Response Dated
April 24, 2008:**

Agree. The staff agrees that power uprate-related inspection activities should be documented in an easily identifiable fashion. Changes to the documentation requirements of IP 71004 will require power uprate inspection activities to be identified as such in inspection reports. Additionally, a summary of power uprate inspections will be required in an integrated inspection report once all required inspection samples are complete. Changes to the documentation requirements of IP 71004 will result in power uprate-related inspection activities being easily identified.

Target completion date: 08/29/08*

*This target date is for issuance of revised IP 71004. In the interim period, a draft version of IP 71004 that addresses the recommendation has been provided to the Regions for concurrent use and comment.

**Agency Status
Update Dated
September 19, 2008:**

IP 71004, "Power Uprate," was revised on July 1, 2008, to address this recommendation. Revised IP 71004 is available on the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML081140192. It is publicly available and has been e-mailed to your staff.

OIG Analysis: OIG auditors reviewed the supporting documents referenced in the agency's response. Through this review, as well as additional discussions with NRR staff, OIG concludes that the agency's actions satisfy the intent of this recommendation. Therefore, recommendation 3 is now closed.

Status: Closed.

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Status of Recommendations

Recommendation 4: Develop training for technical reviewers and project managers that is specifically focused on writing or contributing to a safety evaluation.

**Agency Response Dated
April 24, 2008:**

The staff agrees to enhancing existing training for this task. Formal training on safety evaluations for the technical reviewers is required by NRR Office Instruction ADM-504, "Qualification Program," RxTR-OJT-2, "Safety Evaluations." RxTR-OJT-2 has a specific task to write a safety evaluation according to the guidance in LIC-101, "License Amendment Review Procedures." For project managers, training is required by ADM-504, OpRxPM-OJT-1, "The License Amendment Process." OpRxPM-OJT-1 has a specific task to review LIC-101. LIC-101 has three pages of guidance on how to write the safety evaluation. The guidance on writing the regulatory evaluation and technical evaluation portions of the safety evaluation is quite detailed.

The training discussed above will be enhanced with a new office instruction on power uprates. The office instruction will provide at least two examples of acceptable safety evaluation inputs for extended power uprates. The office instruction will also be used to address other Office of the Inspector General recommendations, as discussed in response to those recommendations.

Target Completion Date: 02/27/09

**Agency Revised
Response Dated
September 19, 2008:**

The staff agrees to enhance existing training for this task. Formal training on safety evaluations for the technical reviewers is required by NRR Office Instruction ADM-504, "Qualification Program," RxTR-OJT-2, "Safety Evaluations." RxTR-OJT-2 has a specific task to write a safety evaluation according to the guidance in LIC-101, "License Amendment Review Procedures." For project managers, training is required by ADM-504, OpRxPM-OJT-1, "The License Amendment Process." OpRxPM-OJT-1 has a specific task to review LIC-101. LIC-101 has three pages of guidance on how to write the safety evaluation. The guidance on writing the regulatory evaluation and technical evaluation portions of

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the safety evaluation is quite detailed.

The training discussed above will be enhanced with a new office instruction on power uprates. The office instruction will indicate that NRR management (e.g., Division of Policy and Rulemaking management) will provide just-in-time safety evaluation refresher training as part of the "kick-off" meeting for extended power uprates (EPUs). The kick-off meeting is the initial meeting typically with the power uprate lead project manager, the plant project manager, and the technical reviewers assigned to the EPU review, once an EPU application has been accepted by NRC.

At the kick-off meeting, the staff will discuss the review schedule, any plant-specific issues, recent experience with EPU reviews, and safety evaluation inputs. The safety evaluation training will address the purpose and content of safety evaluation inputs. The office instruction will provide at least two examples of acceptable safety evaluation inputs for extended power uprates.

Target Completion Date: 02/27/09

OIG Analysis:

The agency's proposed corrective action meets the intent of OIG's recommendation. Recommendation 4 will be closed when NRC's office instruction has been finalized and issued, and after OIG observes the provision of just-in-time safety evaluation refresher training at the kick-off meetings.

Status:

Resolved.

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Status of Recommendations

Recommendation 5: Implement internal controls to ensure communication of the safety evaluation, highlighting the recommended areas of inspection and regulatory commitments sections to the regions and resident inspectors.

**Agency Response Dated
April 24, 2008:**

The staff agrees with the recommendation and intends to ensure communication of the safety evaluation. This will be accomplished through a new office instruction on power uprates. The office instruction will be developed to support the extended power uprate (EPU) approval and post-approval activities. The office instruction will ensure that the Regional point-of-contact and at least one resident inspector have received the staff's EPU safety evaluation and are aware of the pertinent sections in the safety evaluation.

Target Completion Date: 02/27/09*

* This target date is for issuance of the office instruction. In the interim period, upon approval of an EPU, the Generic Communication and Power Uprate Branch will continue to communicate with the Division of Operating Reactor Licensing to ensure that the tasks discussed above are taken.

**Agency Status
Update Dated
September 19, 2008:**

The new office instruction on power uprates is being developed.

OIG Analysis: The agency's proposed corrective action meets the intent of OIG's recommendation. Recommendation 5 will be closed when the agency submits, and OIG reviews, a finalized and issued office instruction on power uprates to determine that the intent of this recommendation has been satisfied.

Status: Resolved.

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Status of Recommendations

Recommendation 6: Strengthen and communicate the coordinating authority of the Power Uprate and Generic Communications Branch or assign a coordinating authority to be responsible for all aspects of power uprate activities.

**Agency Response Dated
April 24, 2008:**

The staff agrees to strengthen the coordination of all aspects of power uprate activities. This will be accomplished through a new office instruction on power uprates that will outline roles and responsibilities and include the Generic Communication and Power Uprate Branch as the coordinating agent for power uprate activities.

Target Completion Date: 02/27/09

**Agency Revised
Response Dated
September 19, 2008:**

The staff agrees to strengthen the coordination of all aspects of power uprate activities. This will be accomplished through a new office instruction on power uprates that will outline roles and responsibilities, include the Generic Communication and Power Uprate Branch as the coordinating agent for power uprate activities, and include appropriate management roles and responsibilities for power uprate activities.

Target Completion Date: 02/27/09

OIG Analysis:

The agency's proposed corrective action meets the intent of OIG's recommendation. However, given that the completion date for strengthening and communicating the coordinating authority of the Generic Communication and Power Uprate Branch is in February 2009, OIG encourages the agency to promulgate interim guidance informing stakeholders of the Branch's strengthened authority. Recommendation 6 will be closed when the agency submits, and OIG reviews, a finalized and issued office instruction on power uprates to determine that the intent of this recommendation has been satisfied, including details about the Generic Communication and Power Uprate Branch's management roles and responsibilities for power uprate activities.

Status: Resolved.

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Status of Recommendations

Recommendation 7: Identify and communicate roles and responsibilities for headquarters and regional points of contact for power uprates.

**Agency Response Dated
April 24, 2008:**

The staff agrees to communicate roles and responsibilities for headquarters and regional points of contact for power uprates. This will be accomplished through a new office instruction on power uprates that will outline roles and responsibilities and include the Generic Communication and Power Uprate Branch as the coordinating agent for power uprate activities.

Target Completion Date: 02/27/09

**Agency Status
Update Dated**

September 19, 2008:

The new office instruction on power uprates is being developed.

OIG Analysis:

The proposed corrective action addresses the intent of OIG's recommendation. Similar to our response to Recommendation 6, OIG recommends implementing interim guidance on the roles and responsibilities for headquarters and regional points-of-contact until a new office instruction on power uprates is completed. Recommendation 7 will be closed when the agency submits, and OIG reviews, a finalized and issued office instruction on power uprates to determine that the intent of this recommendation has been satisfied.

Status:

Resolved.

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Status of Recommendations

Recommendation 8: Develop a tool for project managers to share and record information, monitor trends, and capture best practices and lessons learned.

**Agency Response Dated
April 24, 2008:**

The staff investigated development of a community-of-practice (COP) power uprate Web site. However, an alternate approach is planned which the staff believes will be equally effective and significantly more efficient than a COP Web site.

On a frequency to be determined (e.g., annually), the Generic Communication and Power Uprate Branch (PGCB) will solicit inputs from internal NRC stakeholders on significant new information, trends, best practices, and lessons learned related to power uprate reviews. This information will be combined and disseminated to the internal stakeholders. In addition, this approach will be outlined in the new office instruction on power uprates to ensure knowledge transfer.

Target Completion Date: 02/27/09

**Agency Revised
Response Dated
September 19, 2008:**

The staff investigated development of a community-of-practice (COP) power uprate Web site. However, an alternate approach is planned which the staff believes will be equally effective and significantly more efficient than a COP Web site.

On a frequency to be determined (e.g., annually), the Generic Communication and Power Uprate Branch (PGCB) will solicit inputs from internal NRC stakeholders on significant new information, trends, best practices, and lessons learned related to power uprate reviews. This information will be combined and disseminated to internal stakeholders. This approach will be outlined in the new office instruction on power uprates to ensure knowledge transfer.

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In addition, the OI will indicate that PGCB will accept inputs from internal stakeholders at any time if the internal stakeholder desires to provide the input promptly before it is forgotten or so that it can be shared quickly.

Target Completion Date: 02/27/09

OIG Analysis:

The agency's proposed alternative corrective action minimally meets the intent of OIG's original recommendation. OIG encourages the agency to monitor and revise the procedures for sharing information among project managers once they are in place to ensure the procedures serve the project manager community as intended.

Recommendation 8 will be closed when the agency submits, and OIG reviews, a finalized and issued office instruction on power uprates to determine that the intent of this recommendation has been satisfied.

Status:

Resolved.