



OFFICE OF THE  
INSPECTOR GENERAL

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

September 21, 2015

MEMORANDUM TO: Mark A. Satorius  
Executive Director for Operations

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

SUBJECT: STATUS OF RECOMMENDATIONS: AUDIT OF  
NRC'S OVERSIGHT OF ACTIVE COMPONENT  
AGING (OIG-14-A-02)

REFERENCE: DIRECTOR, OFFICE OF NUCLEAR REACTOR  
REGULATION MEMORANDUM DATED JUNE 18,  
2015

Attached is the Office of the Inspector General's analysis and status of recommendations 1 and 2 discussed in the agency's response dated June 18, 2015. Based on OIG's analysis of this response, recommendations 1 and 2 remain in resolved status.

Please provide an updated status of the resolved recommendations by February 19, 2016. If you have questions or concerns, please call me at 415-5915, or R.K. Wild, Team Leader, at 415-5948.

Attachment: As stated

cc: M. Galloway, OEDO  
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## Audit Report

### AUDIT OF NRC'S OVERSIGHT OF ACTIVE COMPONENT AGING

OIG-14-A-02

#### Status of Recommendations

Recommendation 1:

Perform and document a thorough and systematic evaluation of the need for an NRC program to oversee the management of active component aging activities, all within the context of the current ROP environment. Evaluation elements are to include, but should not be limited to, the need for:

- (a) Program policies, goals, and objectives.
- (b) Program feedback and corrective actions for continual improvement.

Agency Response Dated  
June 18, 2015:

The staff is in the process of completing the recommendations from a report by the Office of Nuclear Reactor Regulation's (NRR's) Operating Experience Branch (IOEB) titled, "Study on Components Exceeding Recommended Service Life." The enclosure to this memorandum contains the current status of the staff's actions.

[From Enclosure] **Recommendations from Office of Nuclear Reactor Regulation, Division of Inspection and Regional Support, Operating Experience Branch Report, "Study on Components Exceeding Recommended Service Life" Planned Actions and Current Status:**

**2012 Active Component Failure Study**

**Recommendation 3:** Consider issuing a generic communication to alert the industry that operating important-to-safety equipment beyond its qualified service life without adequate justification is contrary to regulatory requirements and NRC expectations.

**Planned/Completed Actions:** The staff is developing the basis for an NRC generic communication, most likely a regulatory information summary (RIS). The staff will finalize this basis upon completion of a concurrence task

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#### Status of Recommendations

##### Recommendation 1 (cont.):

interface agreement (TIA) on a closely-related issue identified at three NRC Region 3 plants. The issue involves continued licensee operation of safety-related relays beyond their service life. NRR staff briefly mentioned the draft TIA and its implications at the November 2014 bimonthly Reactor Oversight Process (ROP) working group meeting. The final TIA will be posted on the external NRC Web site. Staff will then process the RIS.

##### 05/2015 Update

The Operating Experience Branch (IOEB) met with Region III management on March 20, 2015, to discuss final wording for the TIA. The IOEB Branch Chief e-mailed a draft copy to Region III on March 25, 2015. The TIA was signed out by Region III on May 7, 2015.

The RIS is under development with a project manager from NRR's Division of Policy and Rulemaking under TAC MF5661.

IOEB has circulated a draft to various internal stakeholders to:

1) Obtain internal feedback prior to seeking public comment, and 2) Determine who wishes to be on final concurrence.

**Status:** May 2015 (TIA) Complete January 2016 (RIS)  
POC: John Thompson

#### **2012 Active Component Failure Study**

##### **Recommendation 4:**

Consider how inspectors could be better prepared to identify instances in which licensees are operating systems, structures and components (SSCs) important-to-safety beyond their reasonable expected service life

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#### Status of Recommendations

##### Recommendation 1 (cont.):

without an adequate engineering justification. Additional guidance and training could be used to alert more inspectors on how these issues can be pursued using criteria from Title 10 of the Code of Federal Regulations (10 CFR) Part 50 Appendix B, "Quality Assurance."

**Planned/Completed Actions:** Revise selected inspection procedures (e.g., Inspection Manual Chapter (IMC) 0612) and conduct associated inspector seminars. Seminars may be delivered using telecommunications and/or through the semiannual resident inspector counterpart meetings.

##### 05/2015 Update

The staff is evaluating IMC 0612, Appendix E to incorporate examples addressing service life issues. Staff from NRR's Division of Inspection and Regional Support, Reactor Inspection Branch is incorporating regional feedback and comments.

**Status:** October 2015 (procedures) January 2016 (seminars) POC: Christopher Regan

#### 2012 Active Component Failure Study

##### **Recommendation 6:**

Conduct a TI (i.e., a one-time inspection) to evaluate whether licensees are documenting appropriate engineering justifications for SSCs in service beyond qualified service life. Results may inform further staff actions, such as enhancements to the baseline inspection program.

##### **Planned/Completed Actions:**

The staff will make a decision on whether there is a need for a TI to collect data about licensees' management of component service life. This decision will be based in part on NRC/industry dialogue following development of a

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#### Status of Recommendations

##### Recommendation 1 (cont.)

generic communication and NRC analysis of any follow-on initiatives proposed by industry.

05/2015 Update A decision will be made following issuance of the RIS.

**Status:** Decision by January 2016 POC: Christopher Regan

##### OIG Analysis:

The agency's proposed actions to complete the actions associated with the 2012 Active Component Failure Study (*IOEB Study*) recommendations contained the [enclosure](#) to this agency response meet the intent of the OIG recommendation. OIG notes that the agency's planned/completed actions to address *IOEB Study* Recommendations 1, 2, 5, and 7 are complete. OIG will continue to monitor the agency's planned/completed actions for *IOEB Study* Recommendations 3, 4, and 6. Specifically with regard to:

1. *IOEB Study* Recommendation 3: OIG verified that the TIA was signed out by Region III on May 7, 2015 and is posted on the external NRC Website, located at <http://pbadupws.nrc.gov/docs/ML1512/ML15127A569.pdf>. For the RIS that is under development, OIG expects that the agency will incorporate internal feedback and determine who will be on final concurrence. OIG will review these actions during the next status update.
2. *IOEB Study* Recommendation 4: OIG contacted the POC to determine the extent to which staff is evaluating IMC 0612 for its ability to oversee the management of active component aging activities, all within the context of the current ROP environment. The POC stated that on August 19, 2015, the staff has been assigned the task of developing examples of

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#### Status of Recommendations

Recommendation 1 (cont.):

service life issues for inclusion in IMC 0612 for regional review and that this task is due by the end of August. In the next status update, OIG anticipates staff will include examples of service life issues being incorporated into IMC 0612, Appendix E and that these examples specifically address aging active components.

3. *IOEB Study Recommendation 6*: OIG will continue to monitor staff plans to issue a Temporary Instruction (TI) to evaluate whether licensees are documenting appropriate engineering justifications for active components in service beyond qualified service life. Since the staff will issue the RIS in January 2016, OIG expects the staff will include an update on its plan to issue the TI in the next status update.

**Status:** Resolved.

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#### Status of Recommendations

Recommendation 2: Develop and incorporate the mechanisms for monitoring, collecting, and trending age-related data for active components within NRC policy and procedures.

Agency Response Dated  
June 18, 2015:

NRR's IOEB will analyze industry component and system failure data by leveraging its access to the Institute of Nuclear Power Operations' Consolidated Events System data tables. This effort is underway, and a pilot program is anticipated to be underway by the end of calendar year 2015.

OIG Analysis:

The agency's action meets the intent of the recommendation. OIG expects the agency to include in its next status update, (1) specific descriptions of the planned NRC analysis of industry component and system failure data and (2) identification of the policy and procedures that will be updated to reflect the manner in which data will be reviewed to identify age-related failures. OIG will close the recommendation once NRC implements this pilot program and provides verifiable documentation that NRC monitors, collects, and trends age-related data for active components, and has included these measures in agency policy and procedures.

**Status:** Resolved.