



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

March 23, 2017

MEMORANDUM TO: Dr. Brett M. Baker  
Assistant Inspector General for Audits  
Office of the Inspector General

FROM: William M. Dean, Director */RA/*  
Office of Nuclear Reactor Regulation

SUBJECT: STATUS OF RECOMMENDATIONS: AUDIT OF THE U.S.  
NUCLEAR REGULATORY COMMISSION'S OVERSIGHT OF  
ACTIVE COMPONENT AGING

The purpose of this memorandum is to provide the Office of the Inspector General (OIG) with a status update on the two recommendations from OIG-14-A-2, "Audit of NRC's Oversight of Active Component Aging," dated October 28, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13301A638).

Recommendation 1 (Resolved):

Perform and document a thorough and systematic evaluation of the need for a U.S. Nuclear Regulatory Commission (NRC) program to oversee the management of active component aging activities, all within the context of the current ROP [Reactor Oversight Process] 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.

Staff Response and Status Update:

The NRC staff and OIG agreed that completion of the seven action items associated with the study by the Office of Nuclear Reactor Regulation Operating Experience Branch (IOEB), "IOEB Analysis Team Study, Component Aging Study (2007–2011)—Insights from Inspection Findings and Reportable Events," dated February 19, 2013, (ADAMS Accession No. ML13044A469, enclosure), will resolve Recommendation 1. The enclosure to this memorandum shows the current status of the staff's actions from that IOEB study.

CONTACT: John W. Thompson, NRR/DIRS  
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Recommendation 2 (Resolved):

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

Staff Response and Status Update:

The NRC staff concluded a pilot of the Operating Experience (OpE) Data Analysis Tool (ODAT) in December 2016. This tool can be used for trending of operating experience, including age-related failure data for active components. The tool is available using Chrome at <http://fusion.nrc.gov/nrr/team/dirs/ioeb/odat/index.html>. ODAT's availability was communicated to NRC through issuance of OpE Note 016 in December 2016 (ADAMS ML16356A571) as well as through regional webinars. The staff plans to document use of the ODAT in a handbook or office instruction, or both, during fiscal year 2017.

Enclosure:  
As stated

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**ADAMS Accession Nos.:** ML17055C304 (memo); ML16265A528 (Pkg); \*e-mail concurrence

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<b>DATE</b>	03/01/2017	03/20/2017	03/23/2017

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**Recommendations from the Office of Nuclear Reactor Regulation, Division of Inspection and Regional Support, Operating Experience Branch Report, “IOEB Analysis Team Study, Component Aging Study (2007–2011)—Insights from Inspection Findings and Reportable Events,” Planned Actions and Current Status**

	<b>2012 Active Component Failure Study Recommendations</b>	<b>Planned/Completed Actions</b>	<b>Status</b>
1	Issue an operating experience communication describing the study findings and recommendations.	The Office of Nuclear Reactor Regulation (NRR) issued an operating experience communication in June 2012. Operating experience communications are distributed to U.S. Nuclear Regulatory Commission (NRC) staff only.	Complete Point of Contact (POC): John Thompson
2	Present study findings and recommendations to the NRR executive team in a significant topics briefing.	The staff briefed the NRR executive team in November 2012.	Complete POC: John Thompson
3	Consider issuing a generic communication to alert the industry that the operation of equipment that is important to safety beyond its qualified service life without adequate justification is contrary to regulatory requirements and NRC expectations.	<u>March 2017 Update</u>  The staff is in the final concurrence stage of issuing a regulatory issue summary (RIS) on the time period for how long safety-related structures, systems, and components (SSCs) remain in service. The staff’s target date for final issuance of the RIS is April 2017.	(TIA) Complete May 2015  (TIA Withdrawn) October 2015  (Draft RIS) Complete July 2016  (Final RIS) April 2017  POC: John Thompson

	<b>2012 Active Component Failure Study Recommendations</b>	<b>Planned/Completed Actions</b>	<b>Status</b>
4	<p>Consider how inspectors could be better prepared to identify instances in which licensees are operating SSCs that are important to safety beyond their reasonable expected service life without an adequate engineering justification. Additional guidance and training could be used to alert more inspectors on how they can pursue these issues using criteria from Appendix B, <a href="#">“Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants,”</a> to Title 10 of the <i>Code of Federal Regulations</i> (10 CFR) Part 50, “Domestic Licensing of Production and Utilization Facilities.”</p>	<p>Revise selected inspection procedures (e.g., Inspection Manual Chapter (IMC) 0612, “Power Reactor Inspection Reports,” dated May 6, 2016) and conduct associated inspector seminars. The staff may deliver seminars through telecommunications or at the semiannual resident inspector counterpart meetings.</p> <p><u>March 2017 Update</u></p> <p>The staff notified the Office of the Inspector General by e-mail on October 7, 2016, that it plans to revise Recommendation 4 to suspend efforts to add an example to IMC 0612, Appendix E, “Examples of Minor Issues,” dated August 11, 2009. Instead, the staff will develop inspection guidance and a training seminar showing inspectors how to address situations that involve the length of time that SSCs remain in service when licensees become aware of relevant information. As with the previous Recommendation 4 from the Operating Experience Branch study, the staff will continue to give periodic updates on the status of this effort and the other recommendations.</p>	<p>IMC 0612 (discontinued with revision to conduct training and inspection guidance)</p> <p>POC: John Thompson</p> <p>Training seminar to be issued (June 2017)</p> <p>Inspection guidance to be issued (August 2017)</p>
5	<p>Brief the NRC regional office Branch Chiefs responsible for component design-basis inspections and the regional operating experience POCs to alert them to the findings of this study.</p>	<p>The staff briefed several regional office managers in November 2012. The staff conducted an updated briefing on November 3, 2014, for the four regional Branch Chiefs responsible for component design-basis inspections (and their respective Division Directors) to clarify planned actions and to solicit additional comments.</p>	<p>Complete</p> <p>POC: John Thompson</p>

	<b>2012 Active Component Failure Study Recommendations</b>	<b>Planned/Completed Actions</b>	<b>Status</b>
6	<p>Conduct a temporary instruction (TI) (i.e., a one-time inspection) to evaluate whether licensees are documenting appropriate engineering justifications for SSCs in service beyond their qualified service life. Results may inform further staff actions, such as enhancements to the baseline inspection program.</p>	<p>The staff will decide whether a TI is needed to collect data about licensees' management of component service life. This decision will be based, in part, on dialogue between the NRC and industry following the development of a generic communication and NRC analysis of any follow-on initiatives proposed by industry.</p> <p><u>March 2017 Update</u></p> <p>The staff believes that the RIS, inspection guidance, and inspector training taken together will alleviate the need for a TI.</p>	<p>Complete</p> <p>POC: John Thompson</p> <p>(see Item 4 for training and inspection guidance dates)</p>
7	<p>Consider engaging industry to propose a revision to NRC Regulatory Guide 1.160, "Monitoring the Effects of Maintenance at Nuclear Power Plants," and NUMARC 93-01, "Industry Guidelines for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," to increase discussion of the validity of time-based preventive maintenance (periodic refurbishment and replacement) or life-cycle management, or both.</p>	<p>The staff briefed industry representatives on the need for additional regulatory guidance and industry attention to this issue. This will naturally occur as a consequence of the other planned activities as described in response to Recommendations 3 and 6 above.</p>	<p>Complete</p> <p>POC: John Thompson</p>