

March 2, 2016

MEMORANDUM TO: Brian E. Thomas, Director  
Division of Engineering  
Office of Nuclear Regulatory Research

FROM: Lawrence E. Kokajko, Director **(RA Mirela Gavrilas for)**  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation

SUBJECT: RESULTS OF PERIODIC REVIEW OF REGULATORY GUIDE 2.2

This memorandum documents the U.S. Nuclear Regulatory Commission (NRC) periodic review of Regulatory Guide (RG) 2.2, "Development of Technical Specifications for Experiments in Research Reactors," published in November 1973. The RG establishes the NRC's position for an acceptable approach to the evaluation of experimental programs as well as considerations that should be addressed to define limits and other requirements to be included in the technical specifications for research reactors. As discussed in Management Directive 6.6, "Regulatory Guides," the NRC reviews RGs approximately every five years to ensure that the RGs continue to provide useful guidance. The documentation of the Office of Nuclear Reactor Regulation (NRR) staff review is enclosed.

Based on the results of the periodic review, the NRR staff concludes that no changes to RG 2.2 are warranted at this time. The NRR staff did not identify any technical or regulatory issues in the review.

Enclosure:  
Regulatory Guide Periodic Review

CONTACT: Leslie Perkins, NRR/DPR  
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(301) 415-1404

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**\*via e-mail**

**NRR-106**

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<b>DATE</b>	2/26/2016	3/2/2016	3/2/2016	

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## Regulatory Guide Periodic Review

Regulatory Guide Number: **2.2**

Title: **Development of Technical Specifications for Experiments in Research Reactors**

Office/Division/Branch: **NRR/DPR/PRLB**  
Technical Lead: **Xiaosong Yin**

Staff Action Decided: **Reviewed with no issues identified**

**1. What are the known technical or regulatory issues with the current version of the Regulatory Guide (RG)?**

Regulatory Guide 2.2, "Development of Technical Specifications for Experiments in Research Reactors," published in November 1973, establishes the U.S. Nuclear Regulatory Commission's (NRC) position for an acceptable approach to the evaluation of experimental programs as well as considerations that should be addressed to define limits and other requirements to be included in the technical specifications for research reactors.

The Office of Nuclear Reactor Regulation (NRR) staff did not identify any technical or regulatory issues that may warrant a revision of the current version of RG 2.2 at this time. All the regulation references in RG 2.2 are current. However, the NRR staff identified minor issues, primarily editorial or for clarification that could be addressed in a future revision.

In addition, there is a standard guidance document NUREG-1537, "Guidelines for Preparing and Reviewing Applications for the Licensing of Non-Power Reactors," which the research and test reactor (RTR) applicants use to prepare their applications and the NRC staff primarily uses to conduct its reviews. NUREG-1537 was published in February 1996 and it references RG 2.2 as supplemental guidance to NUREG-1537 regarding technical specification and experimental programs that may be useful to the applicants. RG 2.2 is included in Appendix 10.1 in NUREG-1537.

**2. What is the impact on internal and external stakeholders of not updating the RG for the known issues, in terms of anticipated numbers of licensing and inspection activities over the next several years?**

There are no technical or regulatory issues identified that would impact licensing activities for RTRs if RG 2.2 is not updated at this time.

Enclosure

**3. What is an estimate of the level of effort needed to address identified issues in terms of full-time equivalent (FTE) and contractor resources?**

Although there are no technical or regulatory issues identified during the review of RG 2.2, the NRR staff identified minor issues, primarily editorial or for clarification that could be addressed in a future revision. The staff anticipates approximately 0.5 FTE to complete documentation of the technical evaluation of the underlying issues that are primarily editorial.

**4. Based on the answers to the questions above, what is the staff action for this guide (Reviewed with no issues identified, Reviewed with issues identified for future consideration, Revise, or Withdraw)?**

Reviewed with no issues identified.

**5. Provide a conceptual plan and timeframe to address the issues identified during the review.**

The NRR staff did not identify any technical or regulatory issues in the review that may warrant a revision to the RG at this time.

**NOTE: This review was conducted in December 2015 and reflects the staff's plans as of that date. These plans are tentative and are subject to change.**