June 18, 2015

MEMORANDUM TO: Brian E. Thomas, Director

Division of Engineering

Office of Nuclear Regulatory Research

FROM: Joseph G. Giitter, Director /RA/

Division of Risk Assessment

Office of Nuclear Reactor Regulation

SUBJECT: RESULTS OF PERIODIC REVIEW OF REGULATORY

GUIDE 8.40

This memorandum documents the US Nuclear Regulatory Commission (NRC) periodic review of Regulatory Guide (RG) 8.40, Revision 0, "Methods for Measuring Effective Dose Equivalent from External Exposure," published in July 2010. The RG describes dosimetry methods that the NRC considers acceptable for determining effective dose equivalent (EDE) for external (EDEX) radiation exposures. As discussed in Management Directive 6.6, "Regulatory Guides," the NRC staff reviews RGs approximately every 5 years to ensure that the RGs continue to provide useful guidance. Documentation of the NRC staff review is enclosed.

Based on the results of the periodic review, the staff concludes that no changes to RG 8.40 are warranted. The staff did not identify any technical or regulatory issues in the review.

Enclosure:

Regulatory Guide Periodic Review

CONTACT: Manuel A. Jimenez, NRR/DRA

(301) 415-3915

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DATE	06/16/15	06/18/15	06/18/15

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Regulatory Guide Periodic Review

Regulatory Guide Number: 8.40

Revision: 0

Title: Methods for Measuring Effective Dose Equivalent from

External Exposure

Office/Division/Branch: NRR/DRA/ARCB

Technical Lead: Manuel A. Jimenez

Recommended Staff Action: Reviewed with Issues Identified for Future Consideration

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

RG 8.40, "Methods for Measuring Effective Dose Equivalent from External Exposure," published in July 2010, describes dosimetry methods that the NRC considers acceptable for determining effective dose equivalent (EDE) for external (EDEX) radiation exposures. The staff did not identify any technical or regulatory issues in the review. Therefore, no changes to RG 8.40 are warranted.

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?

The staff did not identify any technical or regulatory issues in the review.

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

Not Applicable

4. Based on the answers to the questions above, what is the NRC 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, therefore, no changes to RG 8.40 are warranted at this time.

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

Not Applicable

6. References

Not applicable

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