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Submitter Information

Name: Ellen Anderson
Submitter's Representative: Lana Dargan
Organization: Nuclear Energy Institute

General Comment

See attachment

Attachments

12-15-17_NRC_NEI Industry Comments to Draft Regulatory Guide-8032 Instructions for Recording and Reporting Occupational Radiation Dose Data

ELLEN P. ANDERSON
Director, Radiation and International Liaison

1201 F Street, NW, Suite 1100
Washington, DC 20004
P: 202.739.8043
exa@nei.org
nei.org

NUCLEAR ENERGY INSTITUTE

December 15, 2017

Ms. May Ma
Office of Administration
Mail Stop: OWFN-2-A13
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Industry Comments to Draft Regulatory Guide-8056, "Instructions for Recording and Reporting Occupational Radiation Dose Data" (Federal Register Vol. 82, 48125, dated October 16, 2017 - Docket ID NRC-2017-0205)

Project Number: 689

Dear Ms. Ma:

On behalf of the nuclear energy industry, the Nuclear Energy Institute (NEI)[1] appreciates the opportunity to provide comments on the proposed revision 4 to Regulatory Guide 8.7 (DG-8056) which describes the methods that the NRC staff considers acceptable for licensees to use for the preparation, retention and reporting of records of occupational radiation doses. Industry particularly appreciates NRC staff's response to the concerns communicated in Mr. Joseph Pollock's February 16, 2017 letter to Messrs. Dean and Hackett about industry's concerns with revision 3 of Regulatory Guide 8.7. With that said, we continue to be concerned with the NRC staff's new interpretations of existing regulations that represent unanalyzed backfits and do not meet the requirements contained in 10 CFR 50.109. Furthermore, we continue to identify inconsistent guidance within NRC documents as discussed in comment # 4 of this letter. The following are industry's comments to DG-8056:

(1) **The contents of Regulatory Guides should reflect the document's title and purpose**. For guidance consistency, we suggest that the requirements for monitoring only be included in Regulatory Guide 8.34 and not in Regulatory Guide 8.7 because it is out of scope for Regulatory Guide 8.7.

[1] The Nuclear Energy Institute (NEI) is the organization responsible for establishing unified industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel cycle facilities, nuclear materials licensees, and other organizations and entities involved in the nuclear energy industry.

This comment was also provided to NRC in our October 20, 2015 letter pertaining to DG-8030 for this Regulatory Guide and was ignored by the staff. Both Regulatory Guides 8.7 "Instructions for Recording and Reporting Occupational Dose Data" and 8.34 "Monitoring Criteria And Methods To Calculate Occupational Radiation Doses" contain guidance on the requirements for monitoring occupational radiation doses. Unfortunately, this guidance contains contradictory information which has resulted in confusion concerning the regulatory requirements for monitoring, e.g., comment #4 within this letter. NEI strongly urges NRC to ensure that the contents of Regulatory Guides reflect the document's title and purpose within a single guidance document without duplication in another.

(2) **Regulatory guidance should provide clear and concise direction**. Section 1, top paragraph, last sentence of page 7 reads in part "*However, once a licensee has determined to monitor the occupational dose…the licensee must meet the requirement of 10 CFR 20.1201(f) to reduce the dose that the individual may be allowed to receive in the current monitoring year by the amount of occupational dose the individual received while employed by any other person."*

We believe that this sentence as written could cause licensee confusion. We suggest that this sentence be re-worded for clarity. Suggested wording is as follows: "*However, once a licensee has determined to monitor the occupational dose…the licensee must meet the requirement of 10 CFR 20.1201(f). That licensee must account for and consider the dose already received while employed by any other licensee such that they do not exceed the occupational dose limit for that current year."*

(3) **New regulatory requirements must be established by rulemaking rather than regulatory guidance documents.**

10 CFR Part 20.1502 states in part:
Each licensee shall monitor exposures to radiation and radioactive materials at levels sufficient to demonstrate compliance with the occupational does limits of this part. As a minimum-

(a) Each licensee shall monitor occupational exposure to radiation from licensed and unlicensed radiation sources under the control of the licensee and shall supply and require the use of individual monitoring devices by-

(1) Adults likely to receive, in 1 year from sources external to the body, a dose in excess of 10 percent of the limits in 10 CFR Part 20.1201(a)

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(4) Individuals entering a high or very high radiation area.

(b) Each licensee shall monitor (see section 20.1204) the occupational intake of radioactive material by and assess the committed effective dose equivalent to-

> *(1) Adults likely to receive, in 1 year, an intake in excess of 10 percent of the applicable ALI(s) in table 1, Columns 1 and 2, of appendix B of sections 20.1001-20.2402…*[2]

The last sentence of Section 1.1 within DG-8056 *If Monitoring Is Not Required* reads are follows:

> *"…dose assessments performed to quantify unanticipated intakes or exposures are considered required monitoring, regardless of the magnitude of the resulting doses, results must be recorded and reported accordingly."*

DG-8056, now *requires* licensees to record and report dose when dose assessments, e.g. calculations, are performed to quantify unanticipated intakes or exposures, regardless of the magnitude of the resulting dose. We note that there is nothing in 10 CFR 20.1502 that requires monitoring for unanticipated dose. This is a new interpretation of the requirements in §1502 governing the monitoring of external and internal occupational doses in a way that is substantially different from the long-standing interpretation provided in previous versions of Regulatory Guide 8.7, as well as the current revision of Regulatory Guide 8.34.[3] This interpretation is also inconsistent with decades of industry practice that the NRC has previously accepted as sufficient to meet the requirements of §20.1502, and represents an unanalyzed backfit that does not meet the requirements within 10 CFR Part 50.109. Industry urges NRC to remove all requirements contained in DG-8056 for monitoring due to unanticipated intakes or exposures because this requirement is not required per 10 CFR 20.1502.

(4) **Regulatory guidance should be consistent**. Inconsistent guidance exists within DG-8056 and Regulatory Guide 8.34.

As stated above, the last sentence of Section 1.1 within DG-8056 *If Monitoring Is Not Required* reads are follows:

> *"…dose assessments performed to quantify unanticipated intakes or exposures are considered required monitoring, regardless of the magnitude of the resulting doses, results must be recorded and reported accordingly."*

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[2] 10 CFR Part 20.1502(a), (b).

[3] "Monitoring Criteria and Methods to Calculate Radiation Occupational Radiation Doses," Regulatory Guide 8.34 (July 1992) ("Regulatory Guide 8.34").

Section 1.4 of Regulatory Guide 8.34 reads as follows:

> *"…Surveys and monitoring results that serve as confirmatory measures are not subject to the individual dose recordkeeping requirements of 10 CFR 20.2106(a) provided such results confirm that actual individual doses are less than 10% of the limits…"*

Note that the term survey, as defined in the definition section of 10 CFR Part 20 is as follows:

> *"Survey means an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer, release, disposal, or presence of radioactive material or other sources of radiation. When appropriate, such an evaluation includes a physical survey of the location of radioactive material and measurements or calculations of levels of radiation, or concentrations or quantities of radioactive material present."*

As defined in Part 20 and implemented by radiation protection programs for decades, industry believes "surveys and monitoring results" that serve as confirmatory measures also include dose calculations, and therefore should not be subject to dose recordkeeping requirements of 10 CFR 20.2106(a), provided such results confirm that actual individual doses are less than 10% of the annual limits. Dose calculations are performed subsequent to unanticipated intakes or exposures to confirm prospective dose evaluation assumptions that individuals will receive less than 10% of the annual limits. We believe that performance of these calculations to confirm assumptions should not be considered monitoring nor should they be subject to the individual dose recordkeeping requirements of 10 CFR 20.2106(a) provided such results confirm that actual individual doses are less than 10% of the limits.

We appreciate your consideration of the industry's perspectives and would welcome the opportunity for further interactions with the NRC staff on this matter. For completeness, it should be recognized that NRC licensees other than nuclear power reactors rely on Regulatory Guides 8.7 and 8.34, e.g., fuel cycle facilities.

Please contact me if you require information concerning these comments.

Sincerely,

Ellen P. Anderson

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