



Advance Notice of Proposed Rulemaking 10 CFR Part 20

NRC Public Meeting - October 9, 2014

Issue 4 – Individual Protection and ALARA Planning

*Donald A. Cool, Ph.D.
Senior Advisor, Radiation Safety and International Liaison*

Individual Protection - ALARA

- **Commission Direction:**
 - TEDE limit to remain at 50 mSv (5 rem)
 - Continue discussions with stakeholders on alternative approaches to deal with individual protection at or near the current effective dose limit.
- **Objective:**
 - Regulatory requirements and guidance that will ensure that cumulative exposures are examined, and that progressive restrictions can be taken as cumulative exposures increase.

Individual Protection Performance Options

- **Require ALARA planning**
- **Require mechanism(s) to examine cumulative exposure, and take progressive restrictions on the occupational exposure allowed as cumulative exposures increase.**
- **Require licensees to provide with dose records of all other concurrent sources of occupational exposure**

ALARA Planning

- **Current 20.1101(a) requires development, documentation, and implementation of a radiation protection program.**
- **20.1101(b) requires use of procedures and engineering controls to reduce exposures.**
- **Current regulations do not include an explicit requirement to plan activities to optimize radiation protection or to establish ALARA planning values.**

Administrative Control Level

- **Require licensees to establish one or more administrative control levels (ACL's) as part of their radiation protection program and to establish specific procedures for individual protection.**
 - **ACL 20 mSv per year**
 - **ACL average 20 mSv over 5 year period (ICRP-103)**
 - **ACL 10 (mSv) x N (age) (NCRP-116)**
 - **ACL to restrict individuals to 20 mSv if cumulative exposure exceeds xxx mSv**
 - **Other Options?**

Concurrent Exposures

- **10 CFR 20.1201(f) requires the licensee to “reduce the dose that an individual may be allowed to receive in the current year by the amount of occupational dose received while employed by any other person.”**
- **Recordkeeping requirements are written from the perspective of sequential employment, not concurrent employment.**
- **Situations may occur in which individuals are receiving concurrent occupational exposures.**
- **Should regulations require a licensee to account for exposure from concurrent employment with another licensee? How could this be done?**

Individual Protection Questions

- **Q4-1** What are the implications of adding specific ALARA planning and implementation requirements? What changes to licensees' programs would be anticipated?
- **Q4-2** What regulatory language should be used for an additional ALARA planning requirement, and what is the rationale for this language?
- **Q4-3** How does each of the described methodologies for addressing when an individual approaches the yearly occupational dose limit work for different classes of licensees?
- **Q4-4** Should licensees be allowed to establish different ACL's for different groups of individuals? Basis?

Individual Protection Questions

- **Q4-5 How do the different options impact the ability of licensees to best address radiation protection within their programs?**
- **Q4-6 Are there other ways to evaluate occupational lifetime cumulative exposure that could be considered?**
- **Q4-7 What are the potential impacts of requiring a licensee to account for exposure from concurrent employment with another licensee?**
- **Q4-8 Should Agreement States be allowed to use more restrictive or prescriptive requirements?**

Summary

- **Comments will be accepted until November 24, 2014**
 - Federal e-Rulemaking portal at <http://www.regulations.gov> under Docket ID NRC-2009-0279
 - email to Rulemaking.Comments@nrc.gov
 - fax to Secretary, U.S. Nuclear Regulatory Commission, 301-415-1101
 - mail to Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Rulemakings and Adjudications Staff
- **Public Meetings / Webinars scheduled for:**
 - October 16, 2014
 - October 23, 2014

<http://www.nrc.gov/about-nrc/regulatory/rulemaking/potential-rulemaking/opt-revise.html>