



Update on Radiation Protection Regulation Revisions

RIC 2012

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U.S. Nuclear Regulatory Commission
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Background of Regulations

- NRC regulations last revised in 1991
- Requirements in Part 20, Licensing Parts
- NRC staff analysis indicated areas warranting consideration for revision
- Commission approved staff recommendation to engage stakeholders and initiate development of technical basis materials on April 2, 2009



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What Have We Done?

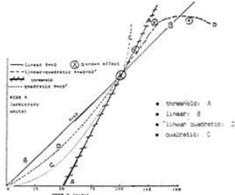


- **Phase I of outreach included:**
 - Presentations to numerous organizations and groups
 - FRN published inviting inputs (74 FR 32198)
- **Phase II Workshops**
 - FRN published with issues and questions (75 FR 59160)
 - Workshops in Washington, Los Angeles, and Houston
- **Phase III Comment – Lens of the Eye**
 - FRN published asking for feedback (76 FR 53847)
- **Staff Recommendations due to Commission April, 2012**

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The Case for Change

- **Scientific Factors:**
 - Radiation Risk increased by factor of 4 from 1977
 - Revised dosimetry systems
 - Continued examination of effects beyond cancer morbidity and mortality
 - Basis for limits now a risk informed decision point using morbidity and mortality



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The Case for Change

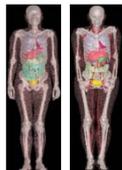


- **Regulatory History Factors:**
 - Public Dose limit reduced in Part 20 Final Rule 1991
 - Occupational Dose limit not changed for Part 20 Final Rule
 - Despite ALARA, occupational dose at levels close to limits continues in some licensee categories
- **External Factors:**
 - International standards have all changed, leading to increased issues of compatibility and global trade impacts
 - Increasing pressure for consistency with international standards

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TED and Numerical Values

- **Issue:** Update terms and scientific information?
- **Feedback:**
 - General support for updating numerical values and scientific base
 - Mixed views on terminology
- **Staff Preliminary Thinking:**
 - Update when available



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Occupational Dose Limits

- **Issue:** Change the Occupational Dose Limit?
- **Feedback:**
 - Little support for change to regulation
 - Certain groups of licensees continue to have individuals above 20 mSv/yr (2 rem)
 - Many do not believe changes in risk justify change to limit
- **Staff Preliminary Thinking:**
 - Consider revising limits



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Special Populations

- **Issue:** Revise Embryo/Fetus limit to match public limit?
- **Feedback:**
 - Mixed feedback
 - Current limit not an issue
 - How can we not protect children?
- **Staff Preliminary Thinking**
 - Consider revising limit



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Lens of the Eye

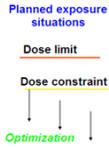
- **Issue:** Adopt New Recommendation from ICRP?
- **Feedback:**
 - Caution needed in making any changes
 - Numeric value for LDE should be the same as the numeric value of TED, to avoid compliance issues
- **Staff Preliminary Thinking**
 - Consider revising limit



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ALARA Planning

- **Issue: Add to requirements for ALARA?**
- **Feedback:**
 - Most licensees do planning to reduce exposures and use a variety of criteria to trigger actions
 - Little support for using the term "constraint"
 - Many concerned that any numerical values in regulations will be a de facto limit
 - Some support for explicitly requiring planning, but with reservations of what inspectors would be expecting in licensing programs
- **Staff Preliminary Thinking**
 - Regulation could be too prescriptive, and not accomplish purpose, but updating guidance could be useful



Resources

- **Web pages**
<http://www.nrc.gov/about-nrc/regulatory/rulemaking/opt-revise.html>
- **Email Address:**
regs4rp@nrc.gov
Rulemaking.Comments@nrc.gov
- **Rulemaking Web Site:**
<http://www.regulations.gov>
Docket ID: NRC-2009-0279