Options to Revise Radiation Protection Recommendations

ISOE ALARA Symposium
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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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Outreach Activities

- **Phase I of outreach included:**
  - **Presentations to numerous organizations and groups**
  - **FRN published inviting inputs (72 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)**
  - **Comments due by October 31, 2011**

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Path Forward

- Policy paper for Commission consideration in April 2012
- Development of Technical Basis to support Commission decisions
- It is still “too soon to tell” what the staff will ultimately recommend
- Comments and views welcomed

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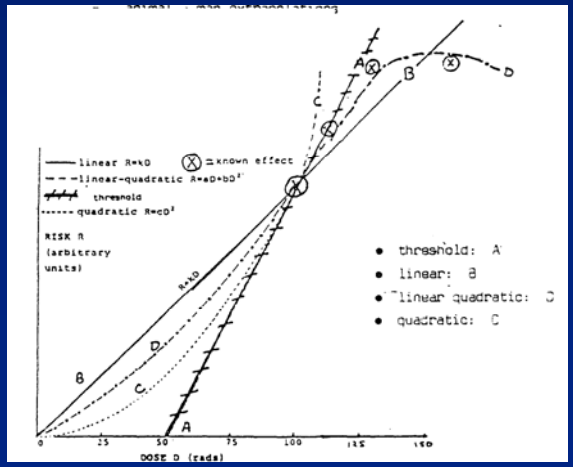
The Case for Change

- **Scientific Factors:**
  - **Radiation Risk increased factor of 4 from 1977**
  - **Revised dosimetry systems**
  - **Continued examination of effects beyond cancer morbidity and mortality**
  - **Basis for limits changed from comparable industry to 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**
  - **Tail of occupational dose distribution at high doses in many licensee categories, where ALARA is not strong and reporting is not required**
- **External Factors:**
  - **International standards have all changed, leading to increased issues of compatibility and global trade impacts**
  - **Increasing pressure for consistency with international standards (e.g. Fukushima Action Plan)**

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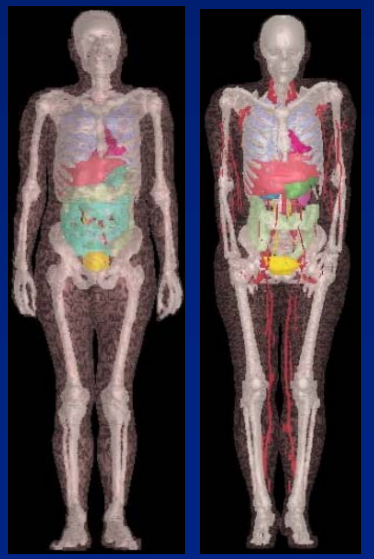
TED and Numerical Values

- **Issue: Update terms and scientific information?**
- **Feedback:**
  - **General support for updating numerical values and scientific base**
  - **Mixed views on terminology**
  - **Many suggested delaying rulemaking until ICRP completes work on dose coefficients**
  - **Some discussion of moving from Regulation to Guidance**
- **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)**
  - **Legal Boundary for enforcement needs to remain as is**
  - **ALARA has resulted in achieving desired dose reductions**
  - **Many do not believe changes in risk justify change to limit**
- **Preliminary Thinking**
  - **Consider revising limits**

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Lens of the Eye

- **Issue: New Recommendation from ICRP**
  - ICRP recommendation is now 20 mSv (2 rem) over 5 years, with a maximum of 50 mSv (5 rem) in any one year
  - Part 20 limit is 150 mSv (15 rem) per year
  - Fluoroscopy and other procedures contribute significantly
- **Feedback:**
  - Caution needed in making any changes
  - Numeric value for LDE could be the same as the numeric value of TED, to avoid compliance issues
- **Preliminary Thinking**
  - Consider revising limit

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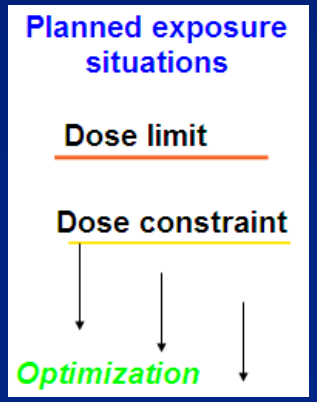
ALARA Planning

- **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**
- **Preliminary Thinking**
  - **Consider depending on limits discussion**



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Interagency

- NRC working with interagency through ISCORS to keep them up to date on stakeholder dialogue
- Federal Agencies funding for development of dose coefficients
- Discussions underway on need to update Federal Guidance documents and Generally Applicable Environmental Standards (EPA lead)

Resources

- **Web pages**

  http://www.nrc.gov/about-nrc/regulatory/rulemaking/potential-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

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Questions?

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