

Options to Revise Radiation Protection Regulations

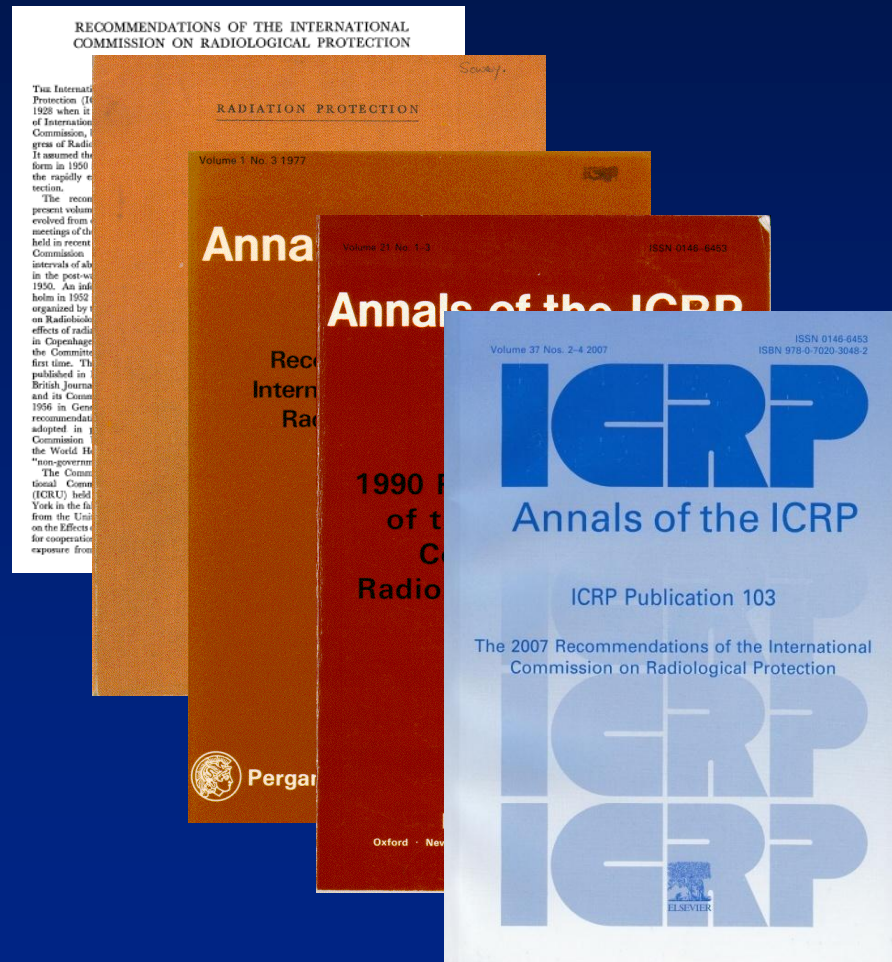
Background

*Washington D.C. Workshop
October 25, 2010*

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

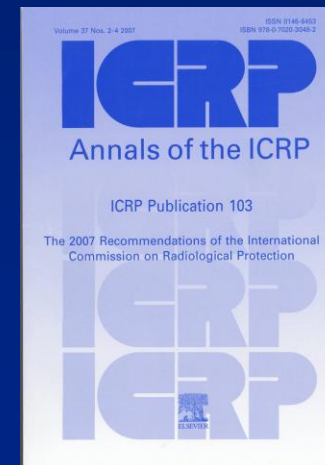
History

- ICRP Recommendations published in
 - Earlier fundamental recommendations: 1928, 1934, 1937, 1950, 1954
 - 1959 Publication 2
 - 1977 Publication 26
 - 1990 Publication 60
 - 2007 Publication 103



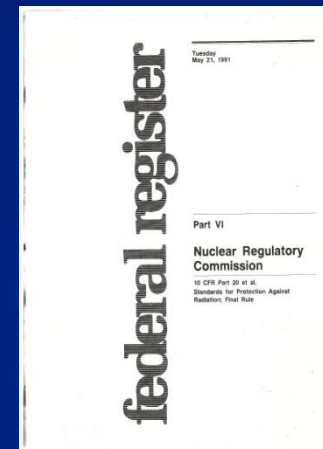
Overview on ICRP 103

- **Consolidated updates since 1990 (ICRP-60)**
- **Updated science, but no fundamental change**
 - New radiation and tissue weighting factors
 - Overall detriment still 5% per Sv
- **Process based → Situation based**
- **Stability**
 - Fundamental principles unchanged (with more emphasis on optimisation in all situations)
 - Dose limits unchanged



NRC Regulation Updates

- Most recent rulemaking to incorporate the recommendations of the ICRP into 10 CFR 20 was completed in 1991, and was based primarily on ICRP Publications 26 (1977)
- Regulations that contained explicit dose criteria, rather than cross-references to Part 20, were not updated in 1991, and remain based primarily on ICRP Publications 1 (1958) and 2 (1959)



Background of NRC Revision

- NRC staff recommended in 2001 that the Commission wait for next set of ICRP recommendations, and begin Technical Basis development
- Commission agreed in April, 2002, but did not approve Technical Basis efforts
- ICRP Recommendations published in December, 2007 as Publication 103, following considerable public consultation



SECY-08-0197

- Policy Issue Notation Vote paper provided to Commission on December 18, 2008
- Provided Options for next steps regarding NRC radiation protection standards
- Provided Background on technical issues in 10 CFR Part 20 and 10 CFR Part 50
- Recommended Commission approval for staff to undertake stakeholder dialogue and technical basis development

| POLICY ISSUE (Notation Vote) | |
|---------------------------------|---|
| <u>December 18, 2008</u> | <u>SECY-08-0197</u> |
| <u>FOR:</u> | The Commissioners |
| <u>FROM:</u> | R. W. Borchardt Executive Director for Operations |
| <u>SUBJECT:</u> | OPTIONS TO REVISE RADIATION PROTECTION REGULATIONS AND GUIDANCE WITH RESPECT TO THE 2007 RECOMMENDATIONS OF THE INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION |

SRM-SECY-08-0197

- On April 2, 2009, Commission approved staff recommendation.
- Objective is to explore implications, as appropriate and where scientifically justified, of greater alignment with ICRP Publication 103.
- Given adequate protection, discussion is to focus on discerning the benefits and burdens associated with revising the radiation protection regulatory framework.

| | |
|----------------|---|
| April 2, 2009 | |
| MEMORANDUM TO: | R. W. Borchardt Executive Director for Operations |
| FROM: | Annette L. Vietti-Cook, Secretary /RA/ |
| SUBJECT: | STAFF REQUIREMENTS – SECY-08-0197 – OPTIONS TO REVISE RADIATION PROTECTION REGULATIONS AND GUIDANCE WITH RESPECT TO THE 2007 RECOMMENDATIONS OF THE INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION |

Outreach Activities

- **Phase I of outreach has included:**
 - Presentations to numerous organizations and groups
 - FRN published inviting inputs (72 FR 32198)
 - Dedicated web address for comments
- **Phase II Workshops**
 - FRN published with issues and questions (75 FR 59160)
 - Comments accepted through January 31, 2011



These Meetings

- Engage wide diversity of stakeholders in facilitated round tables meetings
- Objective to hear from you on issues and options
- Explore in detail the implications for different types of licensed uses, to develop the information needed to make recommendations to the Commission



What Comes Next?

- Assemble viewpoints and comments from workshops and Federal Register
- Develop issues paper for Commission with background, information received, and options
- Commission direction on key issues
- Completion of technical basis development and preparation of proposed rule
- More Public comment



Questions ?

