National Council on Radiation Protection & Measurements

NCRP Comments on Enhancing NRC's Radiation Protection Framework In Response to Executive Order 14300 Section 5(b) July 16, 2025

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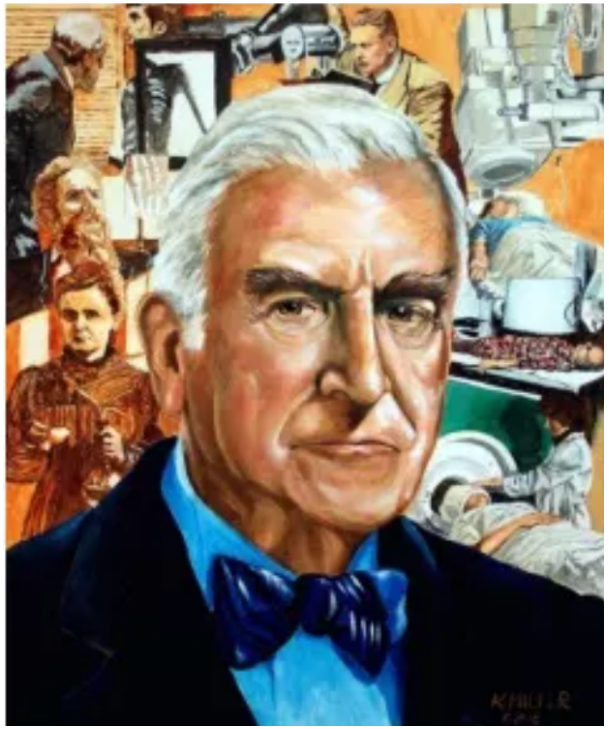
President, National Council on Radiation Protection & Measurements

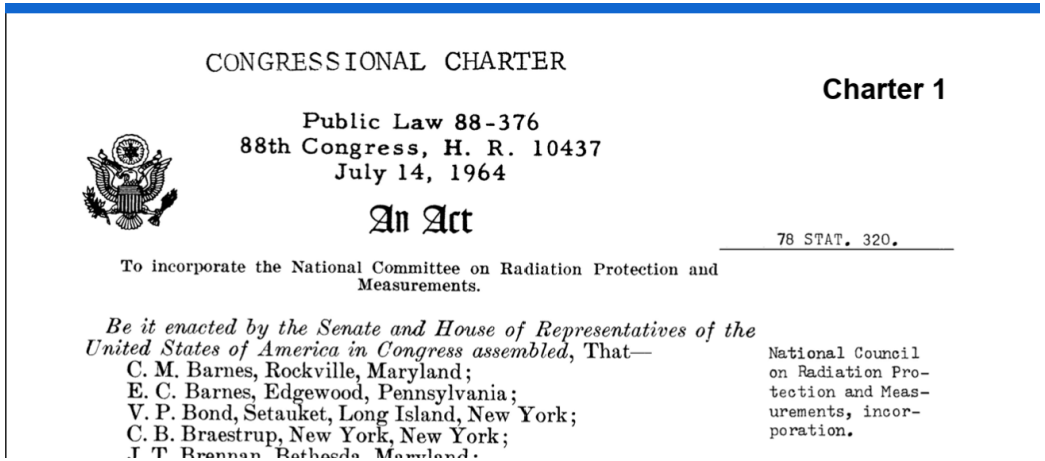
The History of NCRP

- Founded by Congress in 1964 (Public Law 88-376)
- Evolved from the 1929 Advisory Committee on X-Ray and Radium Protection. First President Lauriston Taylor
- Mission: Provide guidance on radiation protection and measurements
- Longstanding advisory role to NRC and other federal agencies



NCRP's Congressional Charter

- Develop & disseminate radiation protection recommendations



CONGRESSIONAL CHARTER

Charter 1

Public Law 88-376
88th Congress, H. R. 10437
July 14, 1964

An Act

78 STAT. 320.

To incorporate the National Committee on Radiation Protection and Measurements.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That—

C. M. Barnes, Rockville, Maryland;
E. C. Barnes, Edgewood, Pennsylvania;
V. P. Bond, Setauket, Long Island, New York;
C. B. Braestrup, New York, New York;
J. T. Brennan, Bethesda, Maryland;

National Council on Radiation Protection and Measurements, incorporation.

- Collaborate with national & international organizations
- Provide guidance on topics such as ALARA and LNT
- Support regulatory decision-making

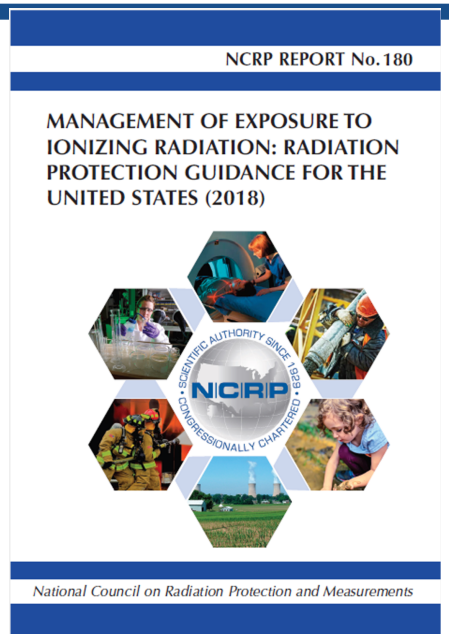
NCRP's Support of NRC Over the Decades

- 1980s–1990s: Input on worker reporting requirements
- 1994: Helped develop NRC's Radiation Exposure Information and Reporting System (REIRS)worker registry

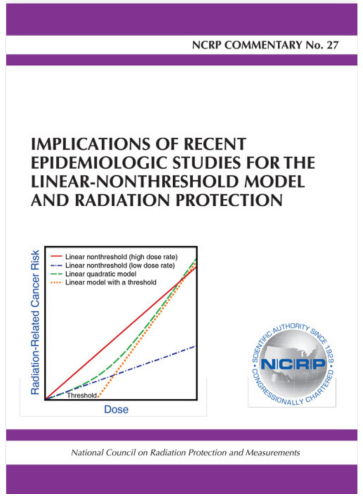
- 2012–present: Analysis of worker dose data (as part of Million Person Study)
- Issued guidance on lens of the eye dose limits

NCRP Reports in Support of NRC

- Report No. 180: Comprehensive Radiation Protection Guidance for Workers, the Public, and the Environment



- Commentary No. 27: Scientific basis for LNT



- Provided input on petitions regarding LNT model (Federal Register documentation)

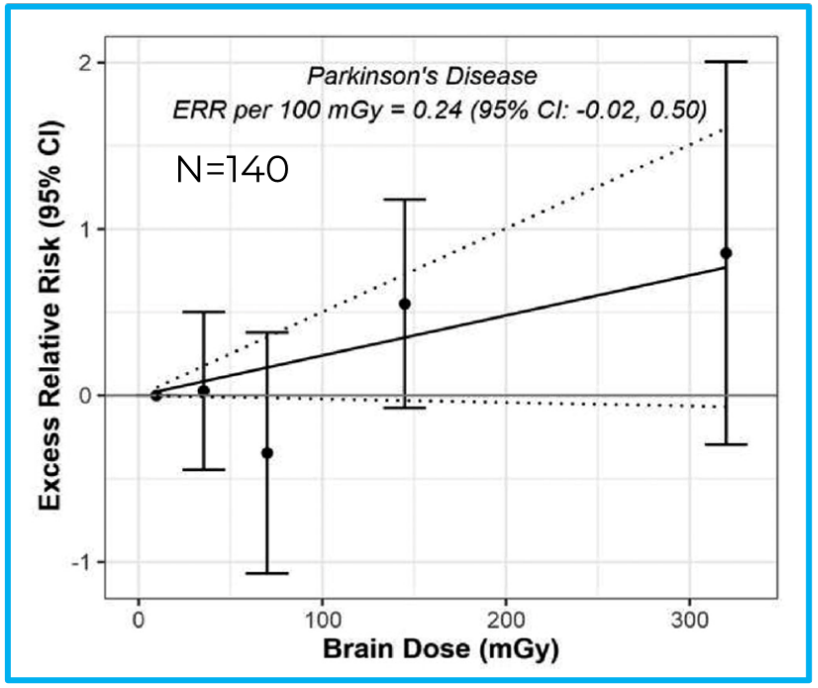
The Million Person Study (MPS)

- Launched early 2000s by NCRP
- Studies >1 million U.S. workers and veterans
- Focus: Chronic, low-dose radiation exposure
- Includes atomic veterans, power plant, medical, and weapons workers

MPS and Public Health Impact

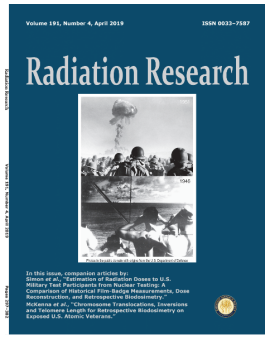
- Addresses cancer ***and noncancer*** outcomes (e.g., cardiovascular disease, neurodegenerative disorders, cognitive decline)
- Improves dose-response estimates
- Enhances understanding of long-term, low-level exposures
- Strengthens scientific foundation for dose limits

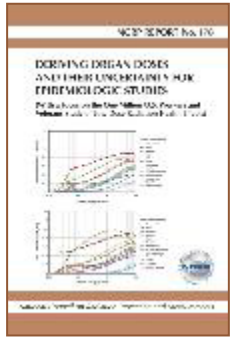
Nuclear Power Workers
Mean 33.2 mGy, Max 834 mGy

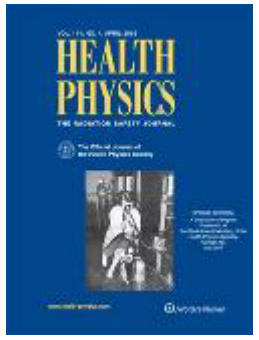


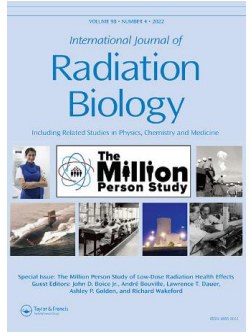
Rigorous Methods, Transparency & Public Data Access

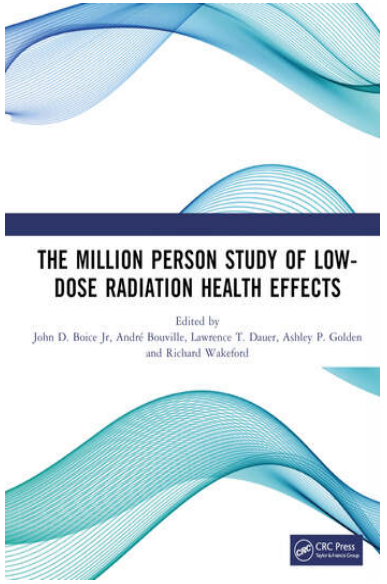
- Retrospective cohort design with linked health records
- Uses Medicare/Medicaid data for noncancer endpoints
- Over 100 peer-reviewed publications
- Public data archive at DOE's Comprehensive Epidemiology Data Resource (CEDR)











NCRP's Approach to Stakeholder Topics

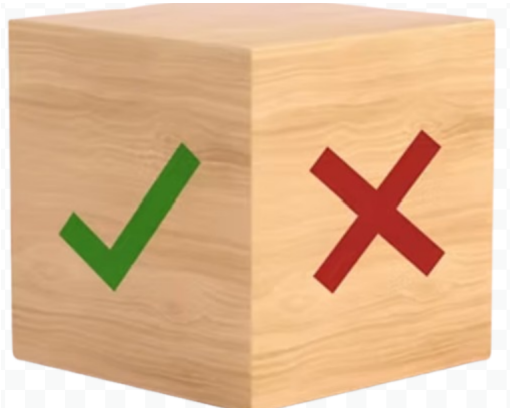
- Consensus-driven recommendations by 100 expert Council Members and other technical volunteers
- Commitment to revisiting guidance as science evolves
- ALARA guidance (Report No. 107)
  - Balances dose reduction with need for clear imaging
- Report No. 180:
  - Revised ALARA under 'optimization of protection'
  - Emphasizes considering societal, economic, and environmental factors
  - NCRP can revisit to ensure all factors are appropriately valued

NCRP's Position on LNT

- Nearly 25 years ago: Report No. 136 (2001):
  - LNT prudent and science-based
- 2018: Commentary No. 27
  - 29 epidemiological studies reviewed; reaffirmed LNT
  - No superior alternative model currently available for low dose and lose dose rate exposures
  - Pragmatic and protective
- Willing to revisit if requested by NRC, as 7 years have elapsed
  - Can incorporate insights from MPS

NCRP Guidance on Negligible Dose

- NCRP has considered a dose ‘floor’
- Report No. 116: 0.01 mSv (1 mrem) annual dose as negligible
- Revisited in Report No. 180
- NCRP is ready to re-examine this recommendation at NRC’s request



NCRP's Continued Commitment

- Decades of independent, scientifically grounded, consensus-based guidance
- Ready to assist NRC in addressing EO 14300
- Ensuring policies reflect current science and protect public health

National Council on Radiation Protection & Measurements

Thank You