



RADIATION PROTECTION AT EPA

Over the Decades

1970s

1980s

1990s

EPA Administrator
Asst. Admin. (OAR)
Office Director (ORIA)

Statutes and Authorities

EPA Implementation Activities

External Factors

W. Ruckleshaus ('70)
 D. Dominick ('70)
 D. Mosiman ('71)
 R. Sansom ('72)
 J. Lieberman ('70)

R. Train ('74)
 R. Strelow ('74)
 W. Rowe ('73)

D. Costle ('77)
 D. Hawkins ('77)
 W. Mills (acting) ('79)
 D. Rosenbaum ('80)

- ▶ PHS Authorizes Response to Health Emergencies ('44, '57, '58, '60, '76)
- ▶ AEA Authorizes Regulation of Nuclear Industry ('46, '54)
- ▶ Federal Reorganization Plan No. 3 Creates EPA ('70)
- ▶ CAA Authorizes EPA to Regulate Air Emissions ('70, '77, '90)
- ▶ MPRSA Authorizes EPA to Regulate Ocean Dumping ('72, '77)
- ▶ FWPCA ('72) Amended by CWA Authorizes EPA to Regulate Discharges of Pollutants into U.S. Waters ('77, '87)
- ▶ SDWA Authorizes EPA to Regulate Contaminants in Drinking Water ('74, '86, '96)
- ▶ RCRA Authorizes EPA to Regulate Hazardous Waste ('76, '85, '86)
- ▶ UMTRCA Authorizes EPA to Regulate Uranium and Thorium Mill Tailings ('78)

- ▶ FG for Underground Mining of Uranium Ore ('71)
- ▶ ERAMS Established ('73)
- ▶ PAGs for Nuclear Incidents ('75)
- ▶ National Interim Primary Drinking Water Standards ('76)
- ▶ Standards for Nuclear Power Operations ('77)
- ▶ Ocean Dumping Regulations ('77)
- ▶ FG for Diagnostic X-Rays (EPA and HEW) ('78)
- ▶ Radionuclides Designated as HAPs ('79)
- ▶ Environmental Monitoring at TMI ('79 - '88)

- ▶ NAS BEIR I - The Effects on Populations of Exposure to Low Levels of Ionizing Radiation ('72)
- ▶ ERA Abolishes AEC, Establishes ERDA & NRC ('74)
- ▶ Department of Energy Organization Act Creates DOE ('77)
- ▶ NAS BEIR II - Considerations of Health Benefit/Cost Analysis for Activities Involving Ionizing Radiation Exposure and Alternatives ('77)
- ▶ CRCPD Report 1 - Natural Radioactivity Contamination Problems ('78)
- ▶ Accident at TMI Nuclear Power Plant ('79)
- ▶ E.O. 12148 Creates FEMA ('79)

A. Gorsuch ('81)
 K. Bennett ('81)
 G. Burley (acting) ('81)

W. Ruckleshaus ('84)
 J. Cannon ('84)
 G. Sjoblom ('83)

L. Thomas ('85)
 C. Elkins (acting) ('85)
 J. C. Potter ('86)
 D. Clay (acting) ('88)
 S. Myers ('85)
 R. Guimond ('88)

W. Reilly ('89)
 W. Rosenberg ('89)
 M. Oge ('91)

- ▶ CERCLA Governs Federal Response to Releases of Hazardous Substances ('80, '86, '90)
- ▶ NWPAA Governs Disposal of HLW & SNF ('82)
- ▶ NWPAA Requires Characterization of Only Yucca Mountain Site ('87)
- ▶ IRAA Establishes National Goal of Achieving Indoor Levels of Radon No Greater than Outdoor Levels ('88)
- ▶ E.O. 12656 Establishes Federal Roles for Emergency Response ('88)

- ▶ PAGs for Nuclear Incidents Rev. ('80)
- ▶ Standards for Releases from Production of U, Ra, and V to Surface Waters ('82)
- ▶ Standards for Remedial Actions at Inactive Uranium Processing Sites ('83)
- ▶ Standards for Uranium and Thorium Mill Tailings at Licensed Commercial Processing Sites ('83)
- ▶ FGR 10 - The Radioactivity Concentration Guides ('84)
- ▶ Standards for the Management and Disposal of SNF, HLW, and TRU ('85)
- ▶ A Citizen's Guide to Radon ('86)
- ▶ Final National Drinking Water Standards ('86)
- ▶ RERP ('86)
- ▶ FG for Occupational Exposure ('87)
- ▶ FGR 11 - Limiting Values of Radionuclide Intake and Air Concentration and Dose Conversion Factors for Inhalation, Submersion, and Ingestion ('88)
- ▶ Radionuclide NESHAPs ('89)

- ▶ NAS BEIR III - The Effects on Populations of Exposure to Low Levels of Ionizing Radiation ('80)
- ▶ E.O. 12241 Directs FEMA to Develop FRERP ('80)
- ▶ LLRWPA Requires States to Dispose of Own LLRW ('80, '85)
- ▶ FEMA Establishes FRPCC ('82)
- ▶ CRCPD Report 2 - Natural Radioactivity Contamination Problems ('83)
- ▶ Very High Levels of Radon Discovered in Homes ('84)
- ▶ FEMA Publishes FRERP ('85)
- ▶ Accident at Nuclear Power Plant in Chernobyl, Soviet Union ('86)
- ▶ Vinyl Chloride Decision Alters EPA's Approach to Radiation Standards ('87)
- ▶ NAS BEIR IV - Health Risks of Radon and Other Internally Deposited Alpha-Emitters ('88)

C. Browner ('93)
 M. Shapiro (acting) ('93)
 M. Nichols ('94)
 E. R. Trovato ('95)

C. Browner ('97)
 R. Wilson (acting) ('97)
 R. Perciasepe ('98)
 L. Weinstock (acting) ('97)
 S. Page ('99)

- ▶ WIPP LWA Authorizes EPA to Certify and Oversee DOE WIPP Activities ('92)
- ▶ EnPA Requires EPA to Promulgate Yucca Mountain Standards ('92)
- ▶ NCP Includes RERT as Special Force in Responding to Radiological Emergency ('94)
- ▶ Protection Against Unconventional Threat to the Homeland and Americans Overseas (PDD-62) Establishes EPA's Role in Federal Response to a Terrorist Event ('98)

- ▶ PAGs for Nuclear Incidents Rev. ('92)
- ▶ FGR 12- External Exposure to Radionuclides in Air, Water, and Soil ('93)
- ▶ Individual and Ground Water Protection Standards for the Disposal of SNF, HLW, and TRU ('93)
- ▶ A Citizen's Guide to Radon Rev. ('94)
- ▶ Groundwater Standards for Remedial Actions at Inactive Uranium Processing Sites ('95)
- ▶ Criteria for Certification & Recertification of WIPP's Compliance with 40 CFR 191 ('96)
- ▶ Compliance Application Guidance for WIPP ('96)
- ▶ Cleanup Levels Established for Radioactive CERCLA Sites ('97)
- ▶ MARSSIM ('97)
- ▶ Use of Soil Cleanup Criteria in 40 CFR 192 as Remediation Goals at CERCLA Sites ('98)
- ▶ WIPP Certified to Accept TRU Waste ('98)
- ▶ FGR 13 - Cancer Risk Coefficients for Environmental Exposure to Radionuclides ('99)
- ▶ RERP Rev. ('00)

- ▶ NAS BEIR V - Health Effects of Exposure to Radon ('90)
- ▶ Protecting the Nation's Ground Water: EPA's Strategy for the 1990s ('91)
- ▶ NAS Report on Yucca Mountain Standards ('95)
- ▶ FEMA Revised FRERP ('96)
- ▶ NAS BEIR VI - Health Effects of Exposure to Radon ('99)
- ▶ NAS Risk Assessment of Radon In Drinking Water ('99)
- ▶ NAS Evaluation of Guidelines for Exposures to TENORM ('99)
- ▶ WIPP Receives First Shipment of TRU Waste ('99)

Acronym List	
AEA	Atomic Energy Act
BEIR	Biological Effects of Ionizing Radiation
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CRCPD	Conference of Radiation Control Program Directors
CWA	Clean Water Act
DOE	Department of Energy
EnPA	Energy Policy Act
ERA	Energy Reorganization Act
ERAMS	Environmental Radiation Ambient Monitoring System
ERDA	Energy, Research and Development Administration
EO	Executive Order
FEMA	Federal Emergency Management Agency
FG	Federal Guidance Report
FRERP	Federal Radiological Emergency Response Plan
FRPCC	Federal Radiological Preparedness Coordinating Committee
FWPCA	Federal Water Pollution Control Act
HAPs	Hazardous Air Pollutants
HEW	Health, Education and Welfare
HLW	High-Level Waste
IRAA	Indoor Radon Abatement Act
LLRW	Low-Level Radioactive Waste
LLRWPA	Low-Level Radioactive Waste Policy Act
MARSSIM	Multi-Agency Radiation Survey and Site Inventory Manual
MPRSA	Marine Protection, Research, and Sanctuaries Act
NAS	National Academy of Science
NAS	National Oil and Hazardous Substances Pollution Contingency Plan
NCP	National Emission Standards for Hazardous Air Pollutants
NESHAPs	Nuclear Regulatory Commission
NRC	Nuclear Waste Policy Act
NWPA	Nuclear Waste Policy Act Amendments
NWPAA	Nuclear Waste Policy Act
OAR	Office of Air and Radiation
ORIA	Office of Radiation and Indoor Air
PAGs	Protective Action Guides
PDD	Presidential Decision Directive
PHSA	Public Health Service Act
Ra	Radium
RCRA	Resource Conservation and Recovery Act
RERP	Radiological Emergency Response Plan
RERT	Radiological Emergency Response Team
SDWA	Safe Drinking Water Act
SNF	Spent Nuclear Fuel
TENORM	Technologically Enhanced Naturally Occurring Radioactive Materials
TMI	Three Mile Island
TRU	Transuranic Waste
UMTRCA	Uranium Mill Tailings Radiation Control Act
U	Uranium
V	Vanadium
WIPP	Waste Isolation Pilot Plant
WIPP LWA	WIPP Land Withdrawal Act