



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Radiation Protection

Pennsylvania's Radiation Protection Program

David J. Allard, CHP

CAC Meeting

February 20, 2018

Tom Wolf, Governor

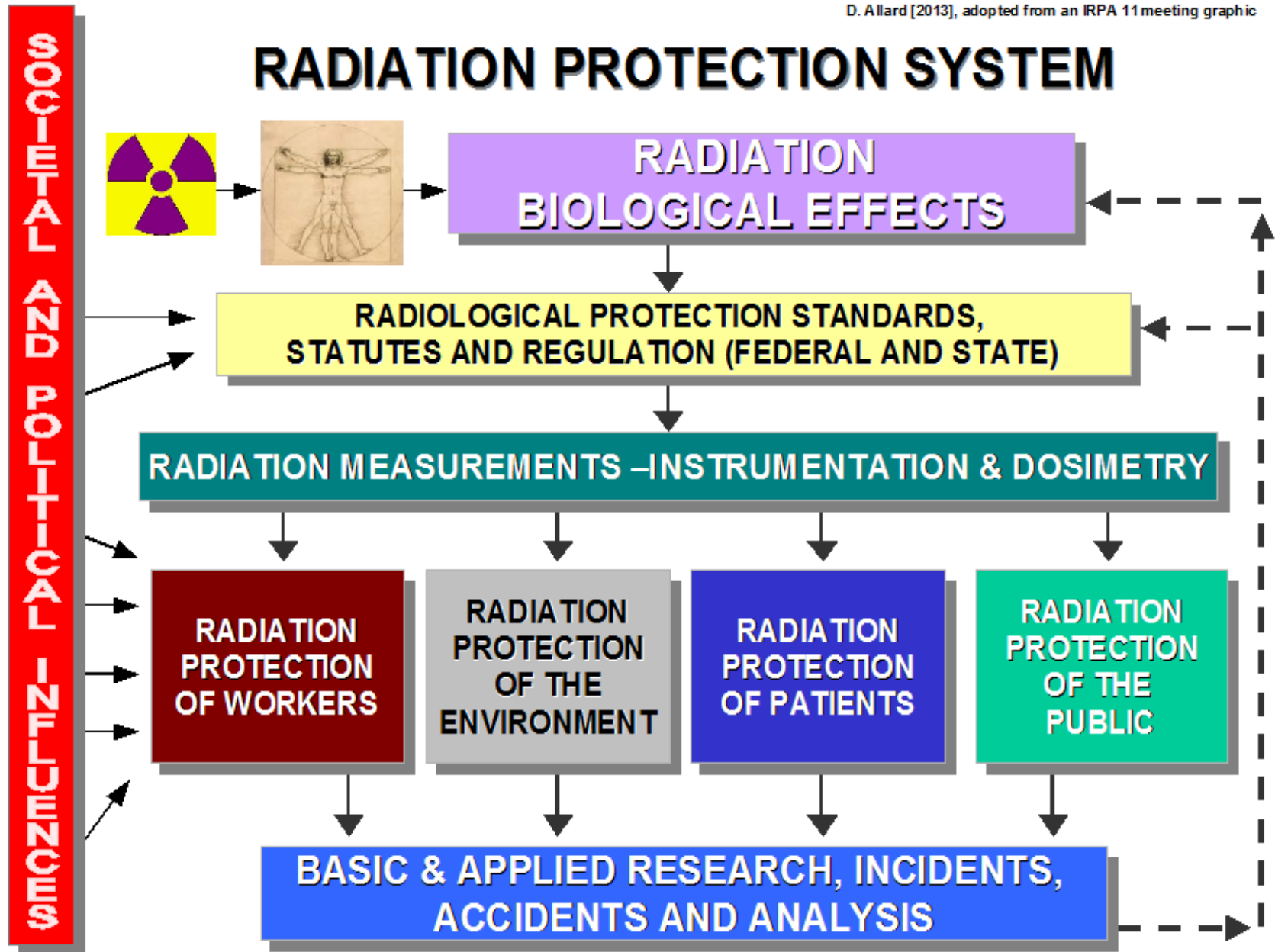
Patrick McDonnell, Secretary

PA Radiation Protection Program

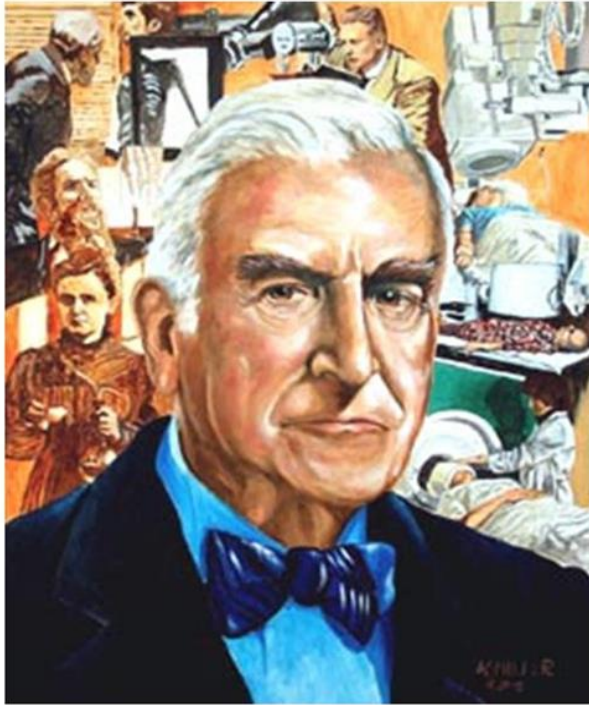
Objectives of this presentation:

- Discuss Radiation Protection (RP) Standards
- PA Statutory & Regulatory Structure
- Describe RP Program Functional Areas
- Review RP Program Staffing
- Outline Funding Sources
- Q&A

RADIATION PROTECTION SYSTEM



NCRP – Lauriston S. Taylor



Taylor painting by Ken Miller

“Radiation protection is not only a matter of science. It is a problem of philosophy, and morality, and the utmost wisdom.”

(L.S. Taylor, 1956)

Radiation Control in USA



DEP: X rays, Accelerators, Radon, and Radioactive Materials (RAM), Emergency Preparedness & Response (EP/ER)

Legislative Authority

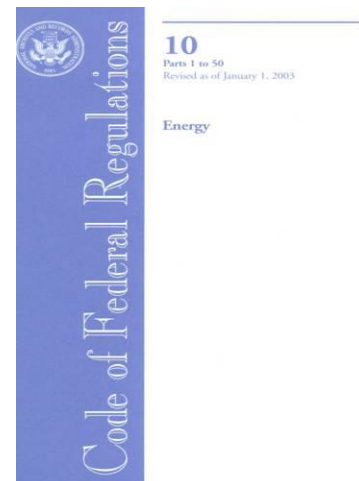
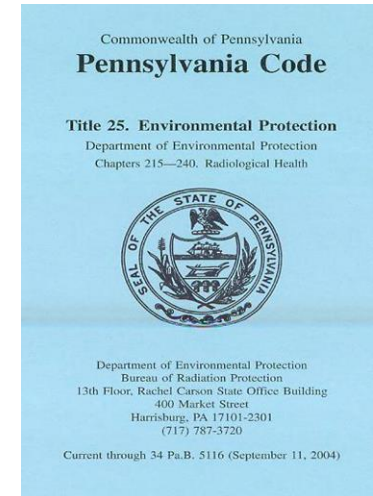
- Radiation Protection Act (Act 1984-147)
- Appalachian States LLRW Compact Act (Act 1985-120)
- LLRW Disposal Act (Act 1988-12)
- LLRW Disposal Regional Facility Act (Act 1990-107)
- Radon Certification Act (Act 1987-43)

PA RP Regulations

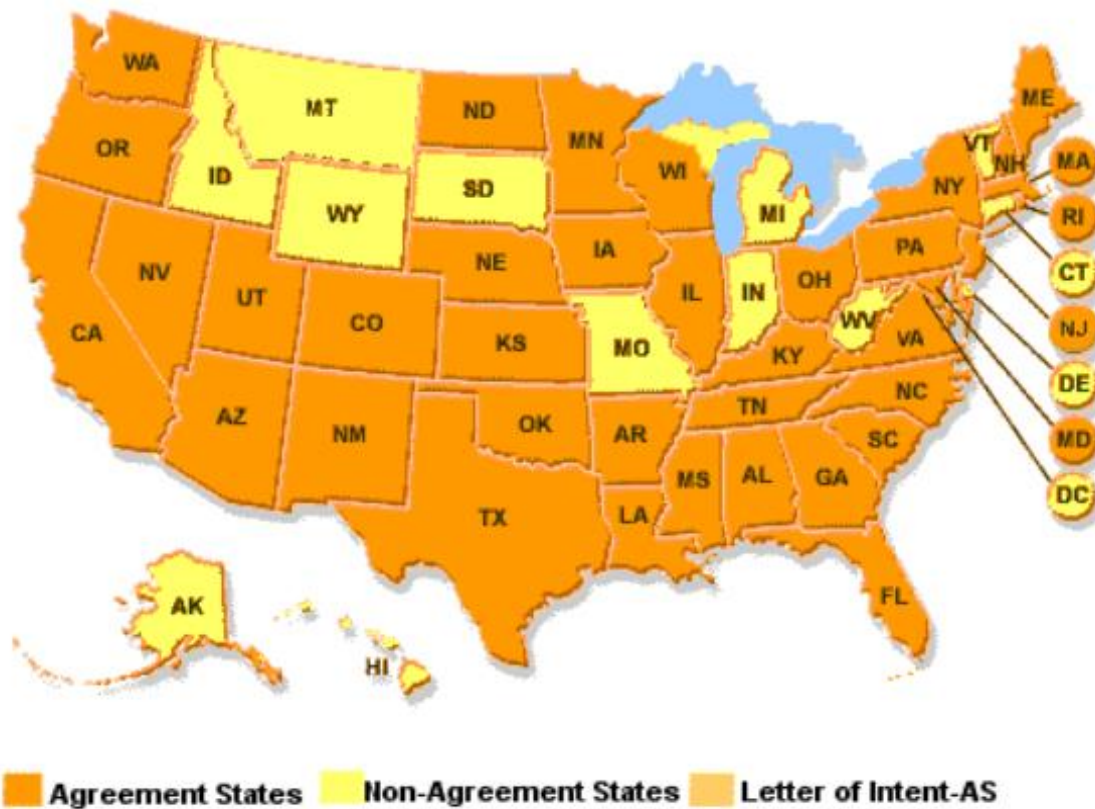
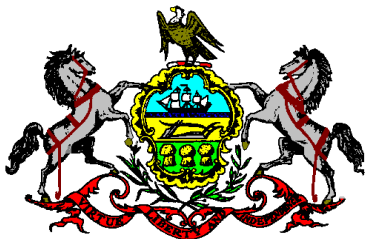
PA Code: Title 25 Environmental Protection

- > Article V. Radiological Health*
- 215. General Provisions
- 217. Lic. of Radioactive Materials (RAM)
- 219. Standards for Protection Against Rad.
- 220. Notice, Instructions & Reports
- 221. X-rays in the Healing Arts
- 230. Packaging & Transport of RAM
- 236. LLRW Management & Disposal
- 240. Radon Certification

*Note: Partial list of Chapters; in Nov. 2001 PA incorporated NRC regs in Title 10 CFR by reference



NRC Agreement State Program



RP Program Scope

- 9 Nuclear power plants, Nuclear Safety, Env. Surveillance, EP/ER
- 1 Research reactor at Penn State Univ., EP/ER
- 1 Navy / DOE facility; Bettis Atomic Lab; EP/ER
- 2 Uranium tailings cells, several radium site clean-ups
- Several old rare earth processors with U / Th slag
- NRC AS w/ ~850 RAM licensees; ~ 10 complex D&D sites
- 630 Certified radon testers, labs and mitigators
- 250 Accelerators (medical and industrial)
- 30,000 X-ray units in 11,000 facilities
- 360 FDA mammography units
- 170 Solid waste facilities monitoring for radiation; ER
- Many metal recyclers monitoring for radiation; ER
- Major transportation routes carrying RAM & SNF; EP/ER

RP Program Activities

- Nuclear Safety: ~700 power reactor oversight visits per year
- EP/ER: 2/3 FEMA-graded exercises and numerous drills per year
- EP/ER: dozens of RAM & SNF transportation assessments for escort
- Low-level Radioactive Waste: data download from DOE / analysis and reports
- Env. Surveillance: ~3,000 samples and radiation measurements per year
- Decommissioning: dozens of license termination, clean-up surveys, special studies

RP Program Activities

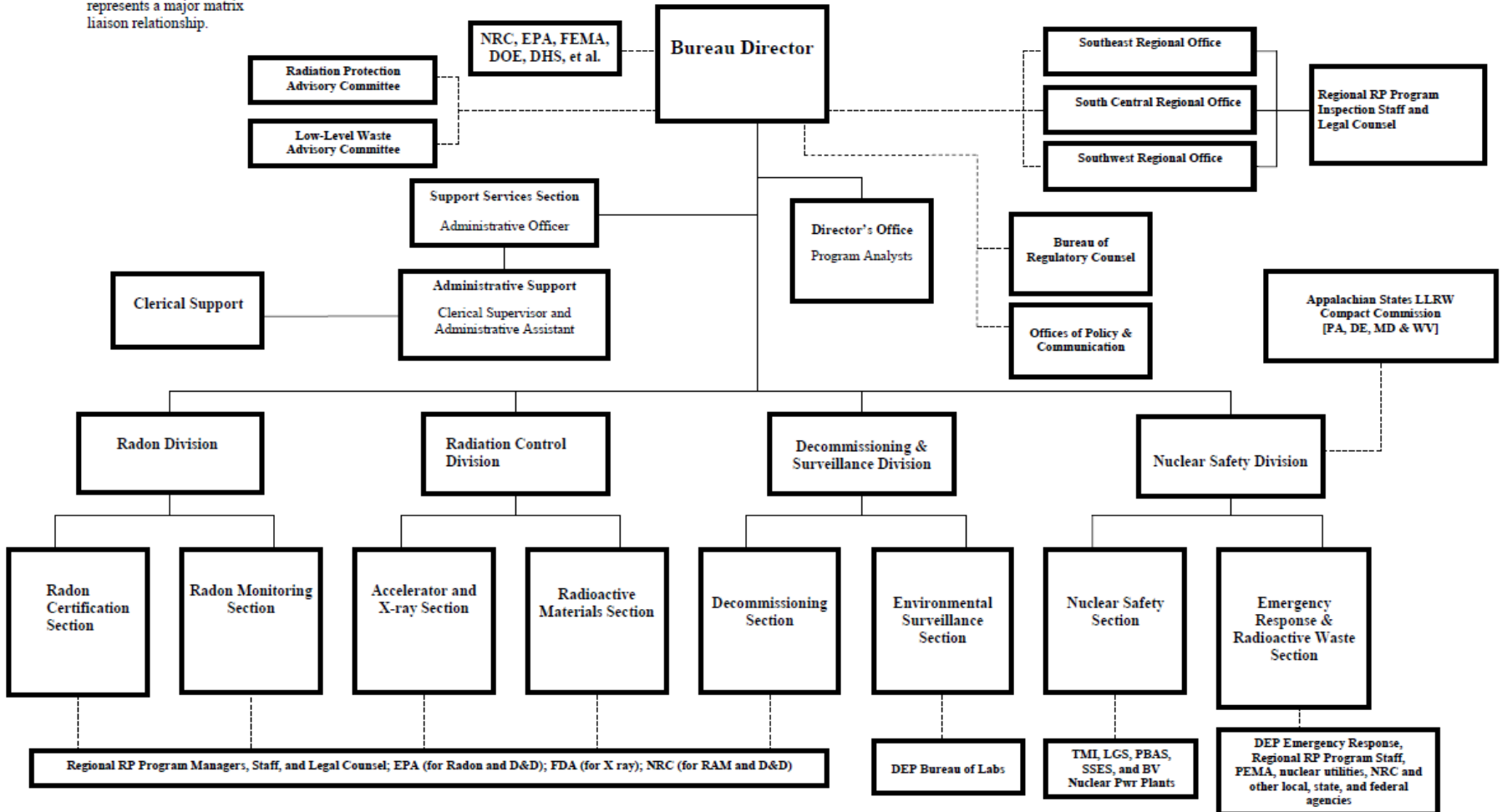
- Radon: ~315 re-certification actions per year
- Radon: ~100 inspections / audits per year; special studies and outreach
- Radiation Control: ~1,140 RAM renewals, amendments and new applications
- Radiation Control: ~630 RAM industrial, medical and academic inspections
- Radiation Control: ~2,600 industrial, dental and medical X-ray inspections
- Radiation Control: dozens of responses to solid waste / metal recycle facilities
- RP Program: federal agency interface (i.e., NRC, EPA, FEMA, DOT, DOE, et al.)
- RP Program: RPAC, LLWAC and Appl. States LLRW Commission meetings
- RP Program: regulation / guidance updates, event response, staff training, etc.

RP Program Org Chart

107 RP Program Staff;
Expect 35-40% Retirements

NOTE: A dotted line
represents a major matrix
liaison relationship.

BUREAU RADIATION PROTECTION



RP Program Funding

***RP Program -
~\$13M/yr Budget***

- Nuclear Power Plant Fees
- Radioactive Materials License Fees
- Decommissioning Cost Recovery
- Accelerator License Fees
- X-ray Equipment Registration Fees
- Radon Certification Fees
- Transportation Fees
- FDA Mammography Contract
- EPA Radon Grants

- 2014 RP Program Fee Review for EQB
- 2017 Nuclear Power Plant Fee Review Report

http://files.dep.state.pa.us/RadiationProtection/BureauOfRadiationProtection/BRPPortalFiles/RP_Three_Year_Fee_Report_to_EQB.pdf

<http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-117463/2900-RE-DEP4874.pdf>

Thank You

Questions?



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Bureau of Radiation Protection

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