# Extreme Environment – Radiation Workers

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GWU Workshop on Medical Policy Formulation for
Extreme Environments
Tysons Corner, VA
July 24-25, 2003

#### Stakeholders

- The Public
- Federal and State Government
  - DOE
  - DOD
  - NASA
  - HHS
  - FDA
  - Others
- Health Care and Energy Industry
- Homeland Security

## Regulations

- The Atomic Energy Act of 1954
- CPL 2.86 Memorandum of Understanding Between the OSHA and the U.S. Nuclear Regulatory Commission
- 10 CFR, Part 835 Occupational Radiation Protection
- 40 CFR from NRC on Protection

## The Atomic Energy Act of

- The purpose of the Atomic Energy Act (42 U.S.C. Sect. 2011 Sect. 2259) (AEA) is to assure the proper management of source, special nuclear, and byproduct material. The AEA and the statutes that amended it delegate the control of nuclear energy primarily to DOE, the Nuclear Regulatory Commission (NRC), and the Environmental Protection Agency (EPA). DOE authority extends to:
  - source material
  - special nuclear material
  - byproduct material
- The Department of Energy Organization Act of 1977 clarified Congressional intent related to DOE's environmental functions

## **Policy**

- In accordance with the Atomic Energy Act of 1954 as amended in 1974 and 1977, DOE will provide its employees and contractors with *Safe* and *Healthful* working environment
- The Standards will be consistent with the OSH Act of 1970, PL 91-596

#### Risks

- Exposures of workers to different types of radiations
  - Manufacturing and processing
  - Handling and medical research and care
  - Life time risks
- Risks of Exposures to family members
- Environmental impacts and population exposures

#### **Evidence based Data**

- WW II
- Industrial Radiation Accidents
- Intentional Exposures (soldiers during the Nevada A-bomb tests)
- Research into ionizing and non ionizing biological effects
- Individuals exposed in course of medical treatment
- Uranium miners

## Helpers and Obstacles

- National Security Interest
- International Agreements
- Cleaned up sites
- Chernobyl
- Lack of appropriated funds
- State legislation

## Policy Process and Emphasis



### Beneficiaries

- Public
- Industry and Economy
- Radiation Workers