

CONGRESSIONAL MANDATE

- **ASSESS SCIENTIFIC BASIS FOR YUCCA MOUNTAIN STANDARD**

CONGRESSIONAL QUESTIONS

- **DOES INDIVIDUAL DOSE STANDARD PROTECT HEALTH?**
- **DO INSTITUTIONAL CONTROLS MITIGATE HUMAN INTRUSION?**
- **IS THERE A SCIENTIFIC BASIS FOR PREDICTING INTRUSION?**

BASIC APPROACH TO THE STANDARD

- **A RISK-BASED STANDARD**
- **TO PROTECT THE PERSONS AT HIGHEST RISK**
- **AT THE TIME THE RISK IS THE HIGHEST**

ELEMENTS OF A RISK-BASED STANDARD

- **LEVEL OF PROTECTION ESTABLISHED BY RULE**
- **PROTECT A CRITICAL GROUP**
- **APPLY WITHOUT TIME LIMIT**

COMPLIANCE ASSESSMENT

- **ADEQUATE SCIENTIFIC BASIS EXISTS FOR MODELING CONCENTRATIONS OF RADIONUCLIDES**
- **EXPOSURE SCENARIO REQUIRES ASSUMPTIONS ABOUT HUMAN BEHAVIOR**
- **TWO APPROACHES TO EXPOSURE SCENARIOS**
 - ⇒ **PROBABILISTIC (MAJORITY VIEW)**
 - ⇒ **BOUNDING**

QUESTION #1: PUBLIC HEALTH

- **HIGHEST RISK PERSONS PROTECTED**
- **INDIVIDUAL, NOT POPULATION, STANDARD PREFERRED**
- **CONSIDER NEGLIGIBLE INCREMENTAL RISK**

QUESTION #2 AND #3: HUMAN INTRUSION

- **SHOULD NOT ENTER INTO PROBABILISTIC PERFORMANCE ASSESSMENT**
- **INSTITUTIONAL CONTROLS USEFUL BUT NOT PREDICTABLE**
- **CONDUCT CONSEQUENCE ANALYSIS**

TECHNOLOGY-BASED STANDARDS

- **ALARA SHOULD NOT APPLY**
- **SUBSYSTEM STANDARDS SHOULD NOT SUBOPTIMIZE**

ADMINISTRATIVE ISSUE

- **RULE-MAKING WILL TAKE LONGER THAN ONE YEAR**
- **NEED NOT DELAY SITE CHARACTERIZATION**

MEMBERSHIP

Robert W. Fri, *chair*, Resources for the Future, Inc.

John F. Ahearne, Sigma Xi

Jean M. Bahr, University of Wisconsin, Madison

R. Darryl Banks, World Resources Institute

Robert J. Budnitz, Future Resources Associates

Sol Burstein, Wisconsin Energy Corporation, *retired*

Melvin W. Carter, Georgia Institute of Technology, *emeritus*

Charles Fairhurst, University of Minnesota

Charles McCombie, Swiss Cooperative for the Disposal of Radioactive Waste

Fred M. Phillips, New Mexico Institute of Mining and Technology

Thomas H. Pigford, University of California, Berkeley

Arthur C. Upton, New York University School of Medicine, *emeritus*

Chris Whipple, ICF Kaiser Engineers

Gilbert F. White, University of Colorado, *emeritus*

Susan D. Wiltshire, JK Research Associates