

# U. S. Army Possession Only License Application for Depleted Uranium

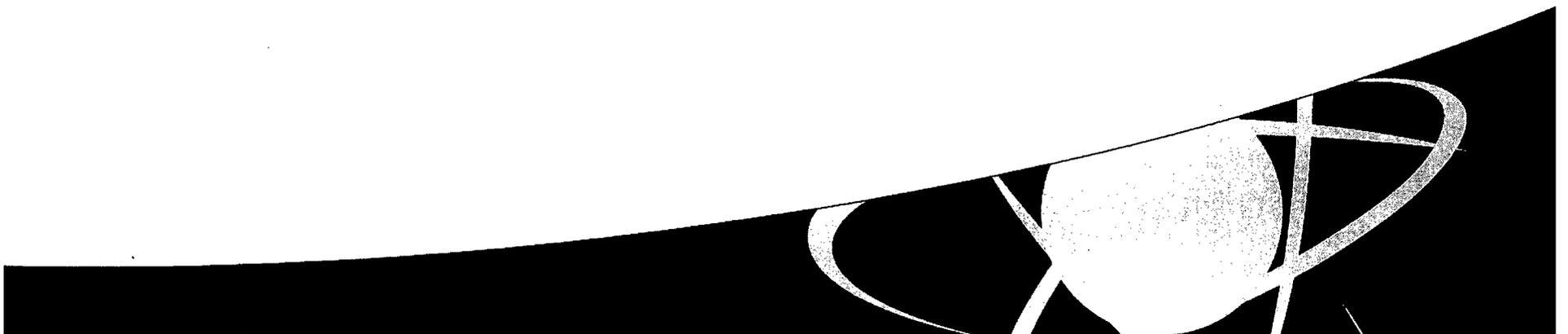
Keith McConnell

U.S. Nuclear Regulatory Commission

# Reason for meeting



U. S. Army's possession  
only license application for  
depleted uranium



## Meeting Topics

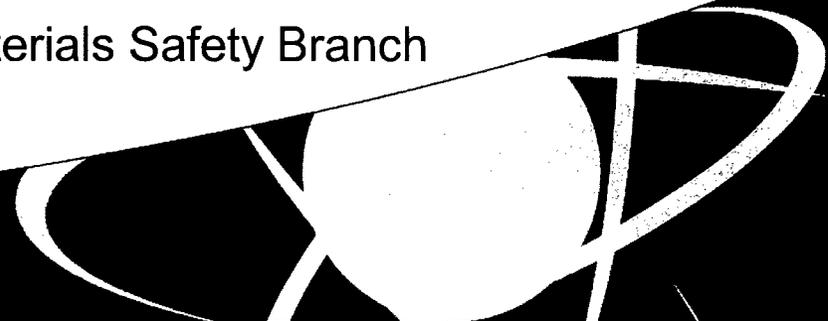
- Action precipitating NRC involvement
- Background on NRC
- NRC Licensing, Inspection & Enforcement Processes
- Overview of U. S. Army's license application
- Mechanisms for Stakeholder involvement
- Solicitation of public comments



# NRC Presenters



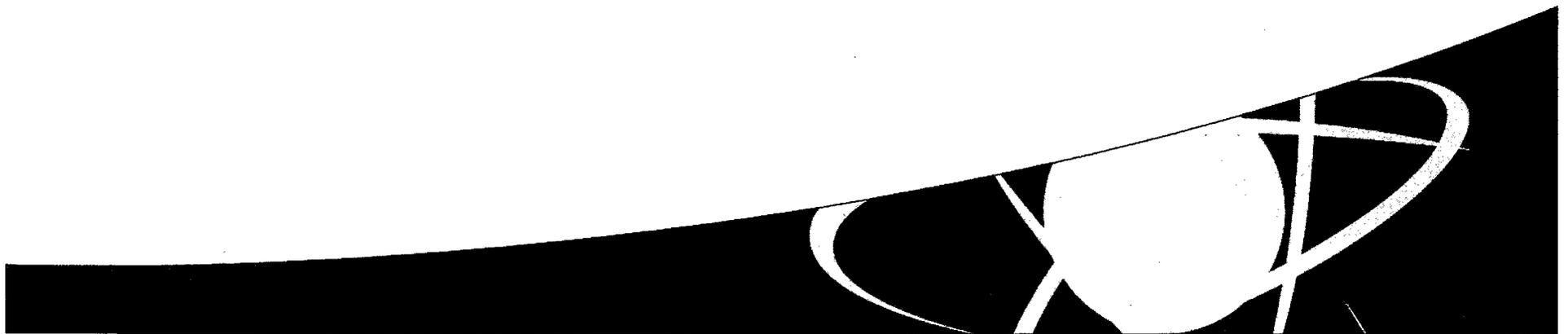
- Keith McConnell
  - Deputy Director, Decommissioning and Uranium Recovery Licensing Directorate
- Rebecca Tadesse
  - Chief, Materials Decommissioning Branch
- Chris McKenney
  - Chief, Performance Assessment Branch
- John Hayes
  - Project Manager, Materials Decommissioning Branch
- Robert Evans
  - Region IV Inspector Nuclear Materials Safety Branch



# Meeting Purpose



- Inform public of U. S. Army's possession only license application for depleted uranium
- Inform public of opportunity to participate in NRC's review process and ways to participate
- Solicit public comments, questions and concerns



# NRC Process

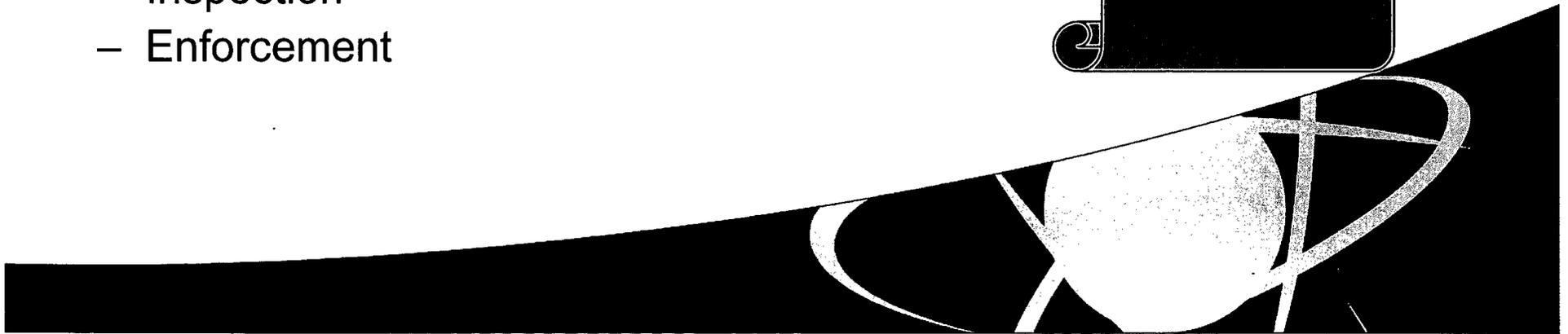
Rebecca Tadesse

U.S. Nuclear Regulatory Commission

# Who is the NRC?



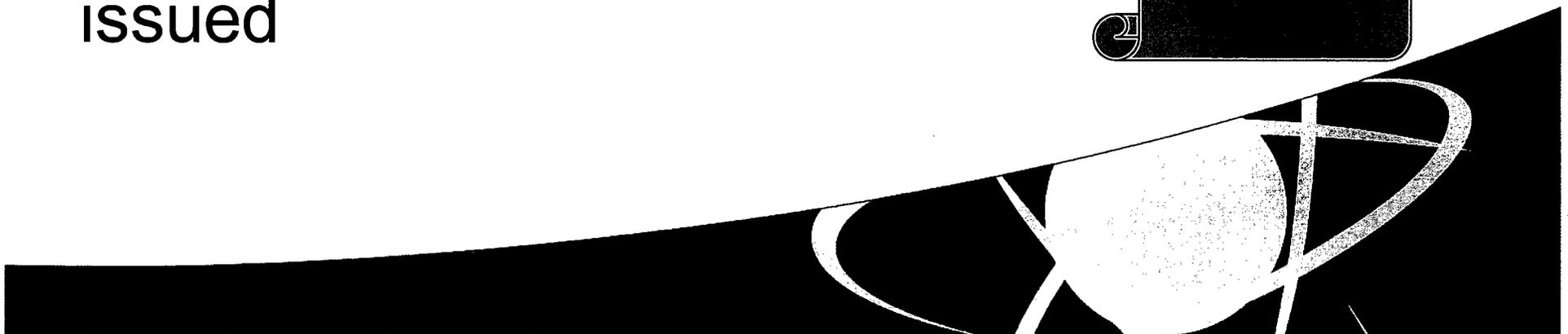
- **INDEPENDENT** Federal agency
- Report directly to **CONGRESS**
- Regulatory **RESPONSIBILITY**
  - Safety and security review
  - Environmental review
  - Licensing
  - Inspection
  - Enforcement



# NRC's Role



- All nuclear projects must meet strict safety, security, and environmental requirements
- After the requirements have been met, the license is issued



# NRC's Review Process

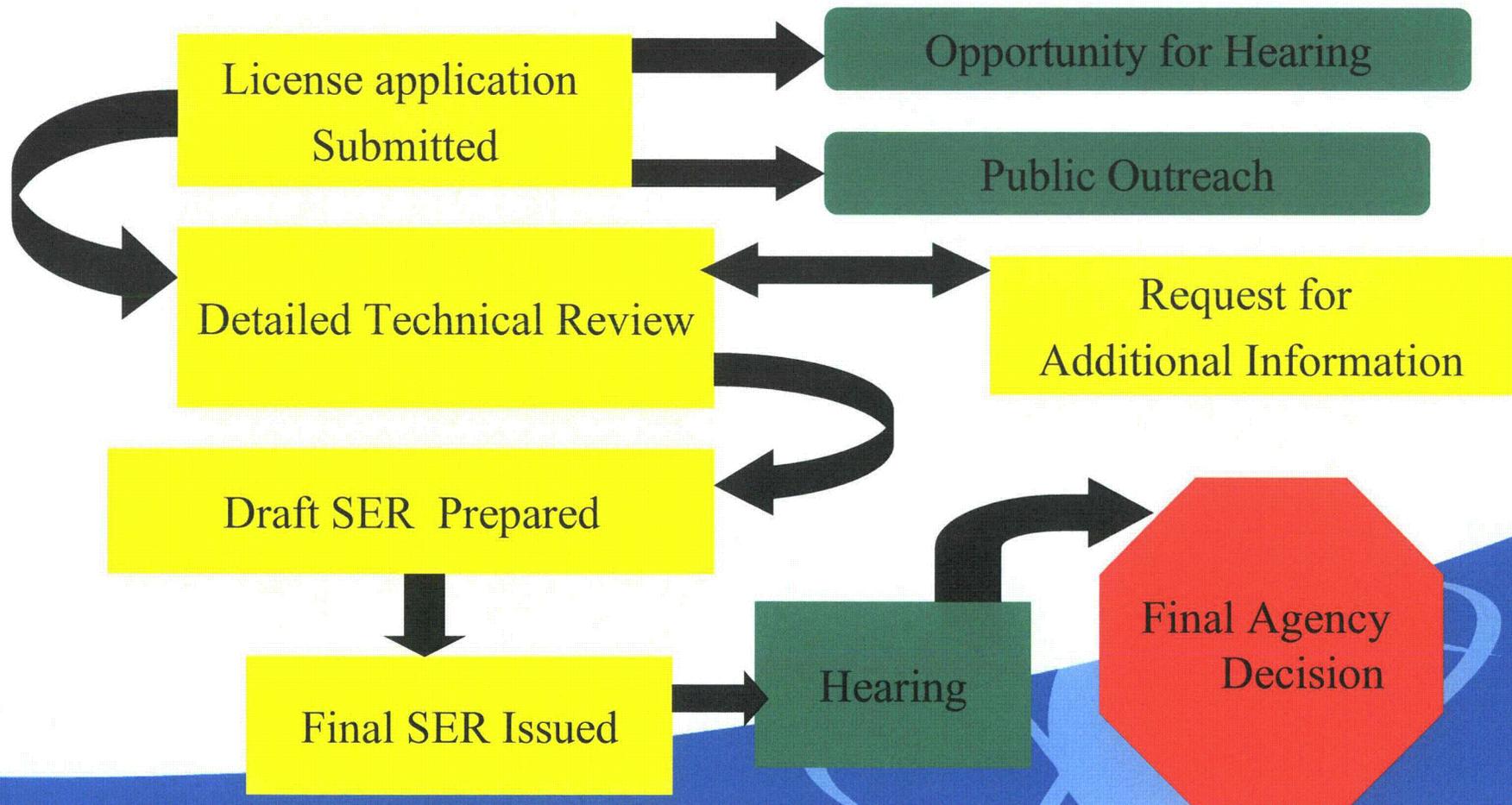


- Three Reviews are performed
  1. Safety review documented in Safety Evaluation Report (SER)
  2. Security review documented in SER
  3. Environmental review documented in Environmental Impact Statement (EIS) or Environmental Assessment

NRC  
strives to  
maintain  
openness  
in license  
review

A vertical scroll graphic with a dark background and white text. The scroll is unrolled at the top and bottom, with small circular details at the corners. The text is centered and reads: "NRC strives to maintain openness in license review".

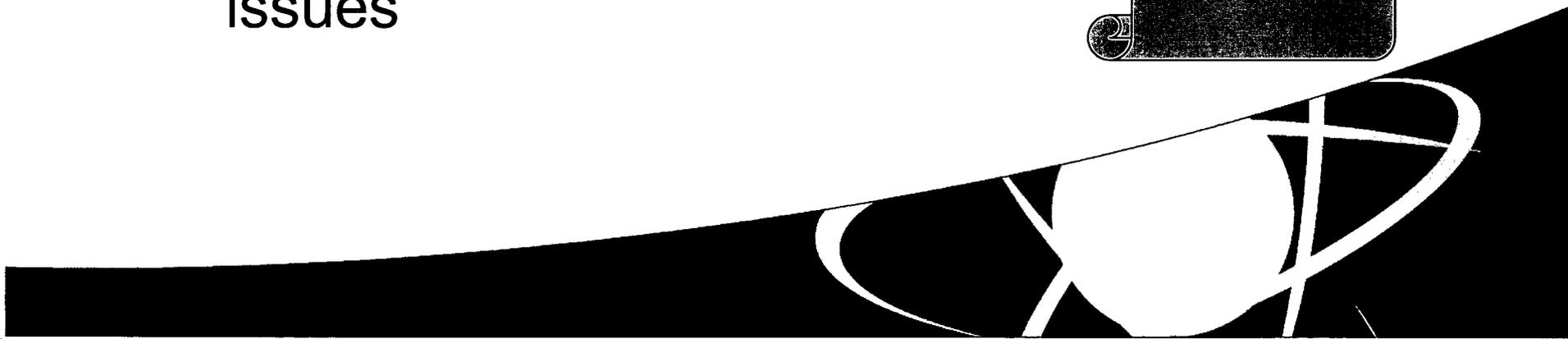
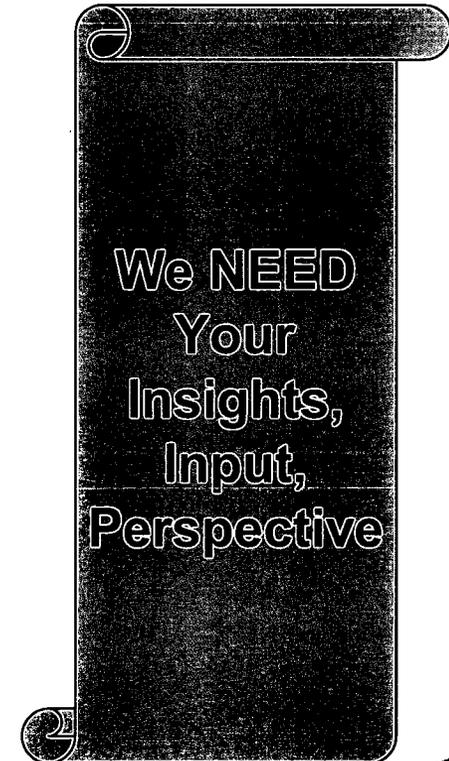
# Licensing Review Process



# Public Involvement



- Comment periods
- Public meetings
- Atomic Safety & Licensing Board Hearing
  - Hearing covers both safety and environmental issues



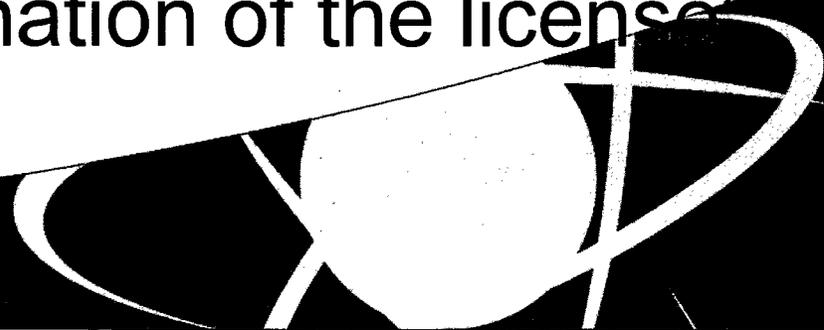
# Decommissioning

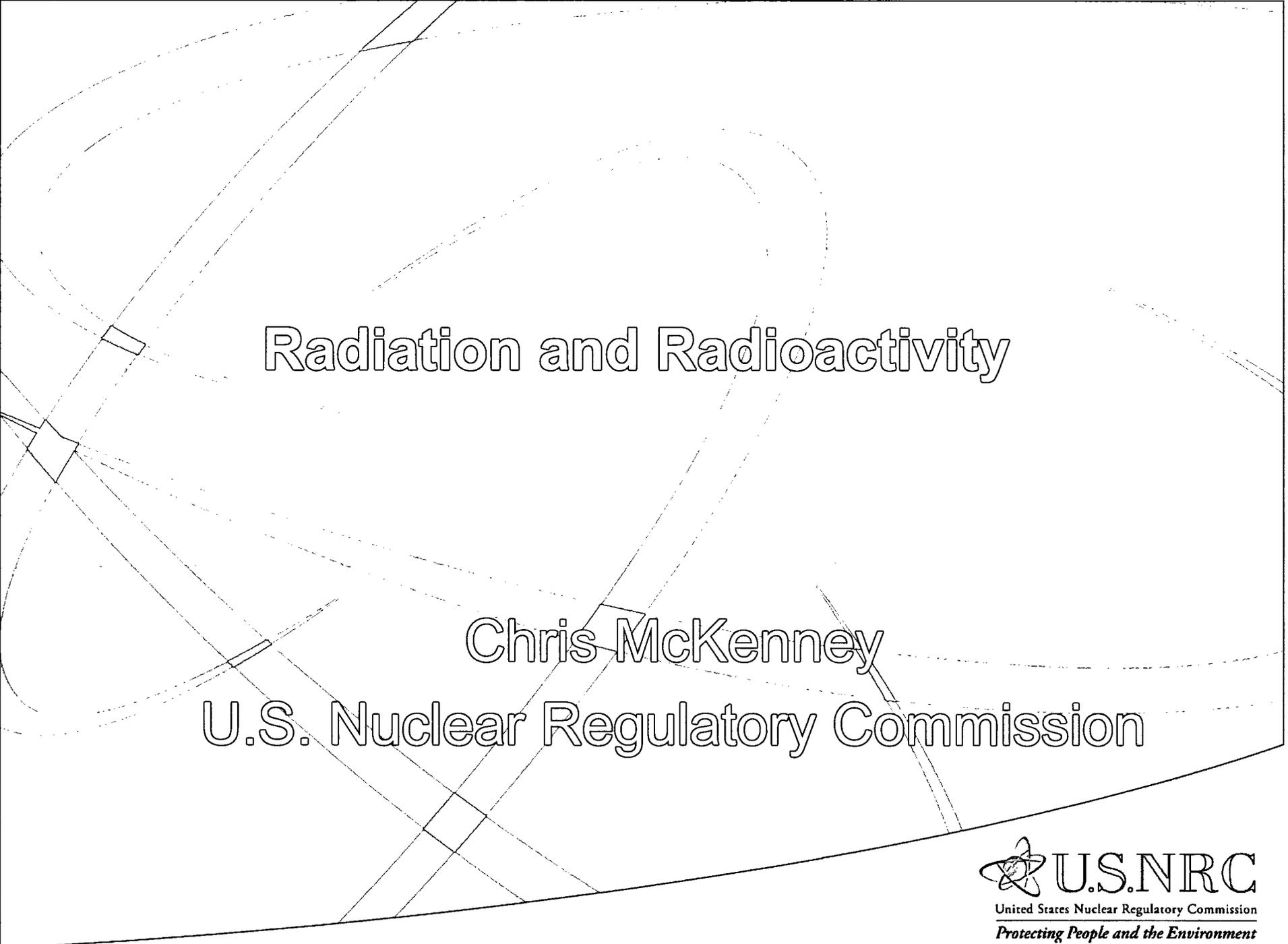


“To remove (as a facility) safely from service and reduce radioactivity to a level that permits:

Release of the property for unrestricted use and termination of the license; or

Release of the property under restricted conditions and termination of the license”





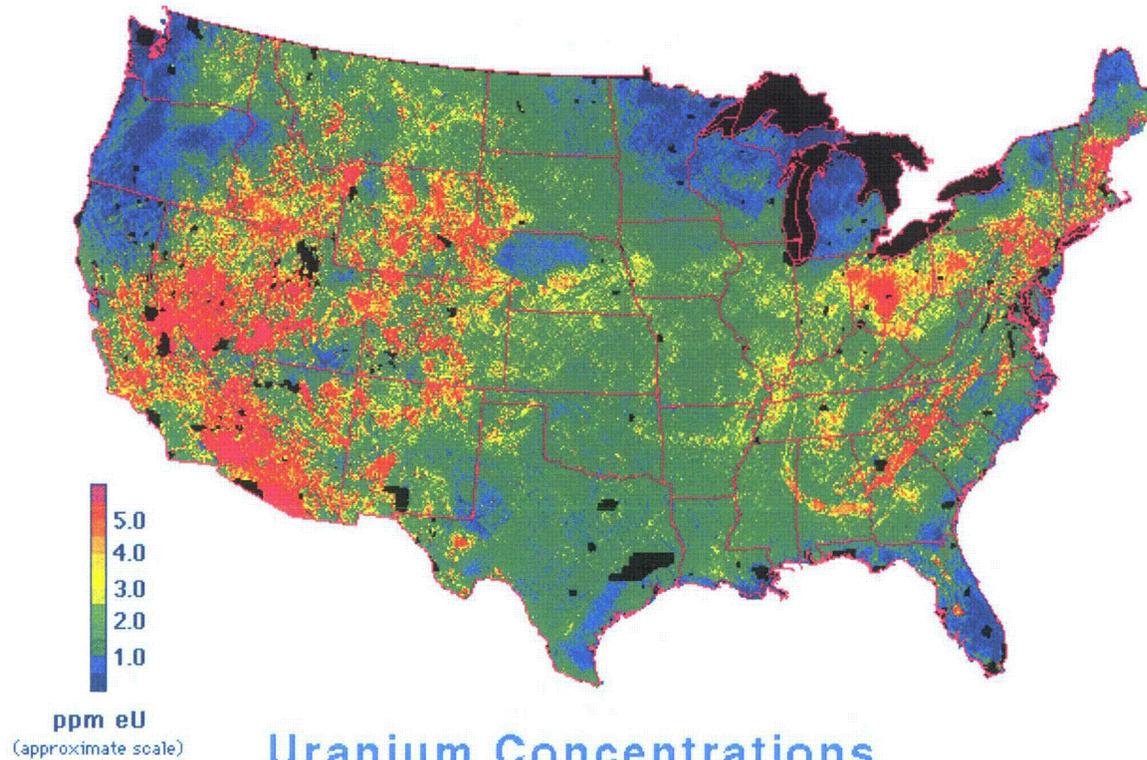
# Radiation and Radioactivity

Chris McKenney

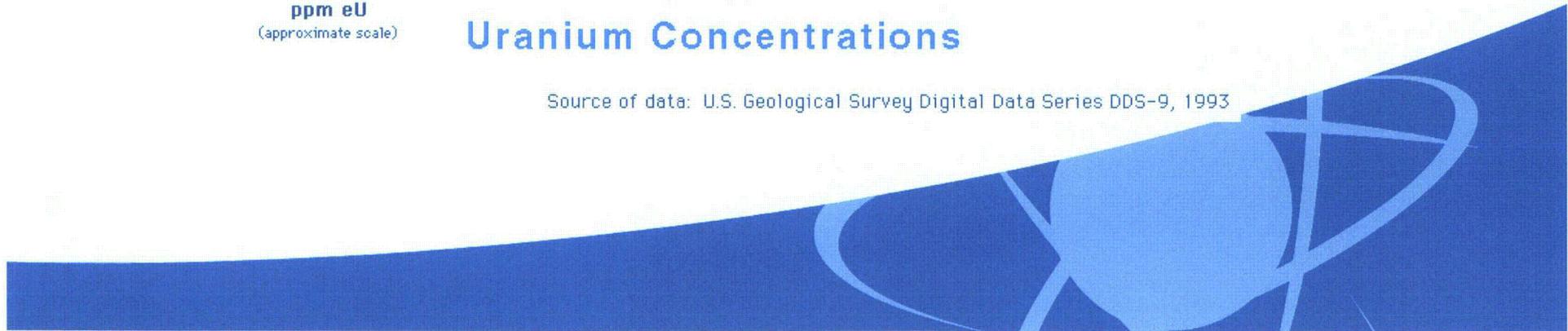
U.S. Nuclear Regulatory Commission



# Radiation all around us

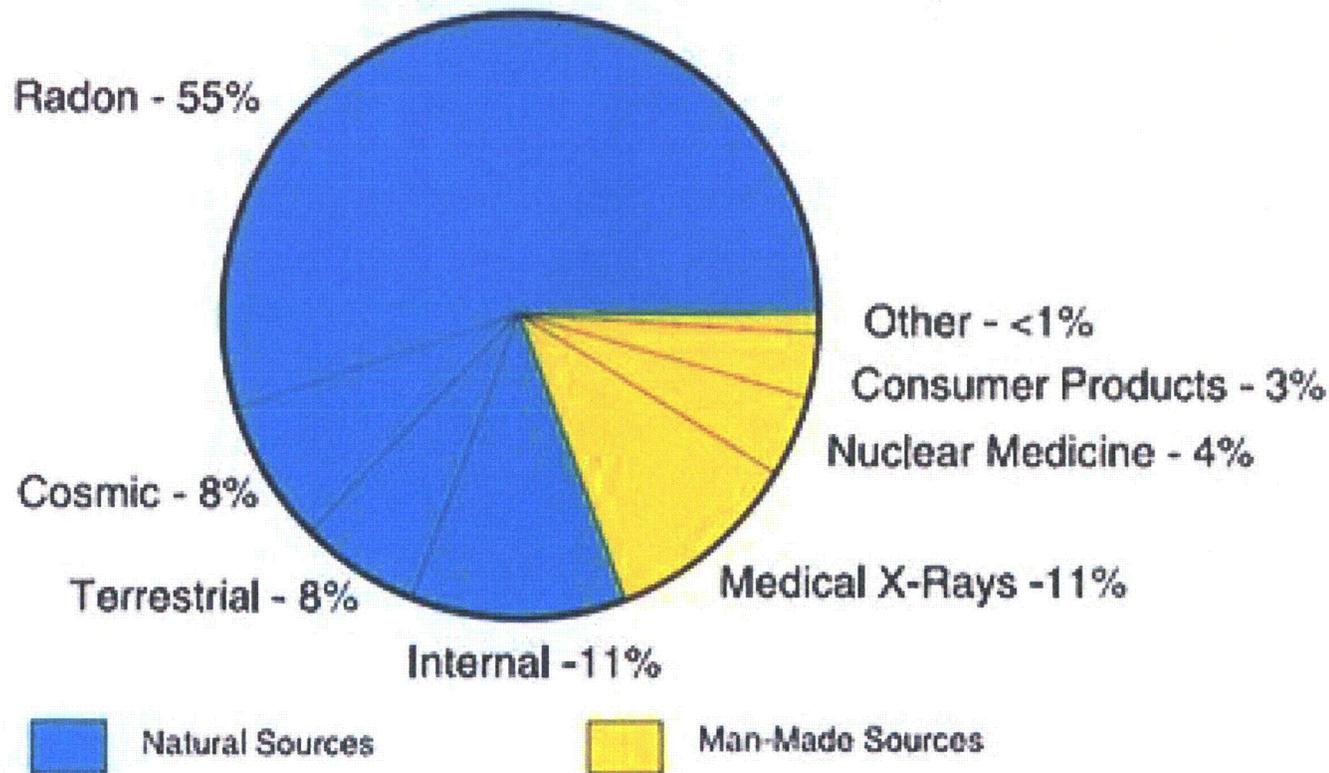


Source of data: U.S. Geological Survey Digital Data Series DDS-9, 1993



## Sources of Radiation Exposure in the United States\*

Total exposure is 360 millirem/yr



\* Source: National Council on Radiation Protection (NCRP) Report 93, 1987.

# Depleted Uranium (DU)

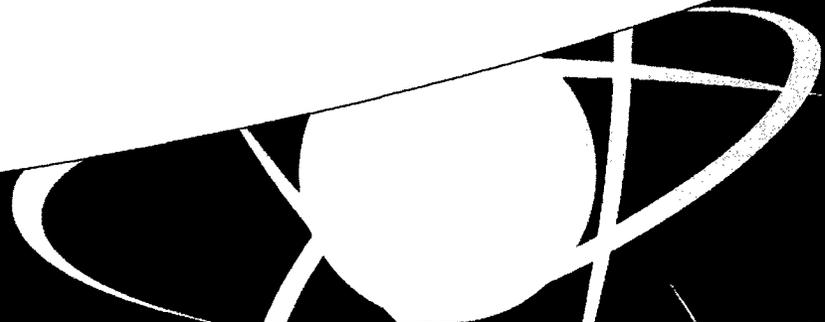


- Natural uranium
  - U-234, U-235 & U-238
- Enriched uranium
  - uranium with U-235 levels greater than 0.71%
- Depleted Uranium
  - Uranium remaining following extraction of U-235 for enrichment purposes



# Depleted Uranium (DU)

- DU used in military and civilian applications
- Greater harmful effects from chemical toxicity of DU than from radiological



# Overview U. S. Army License Application

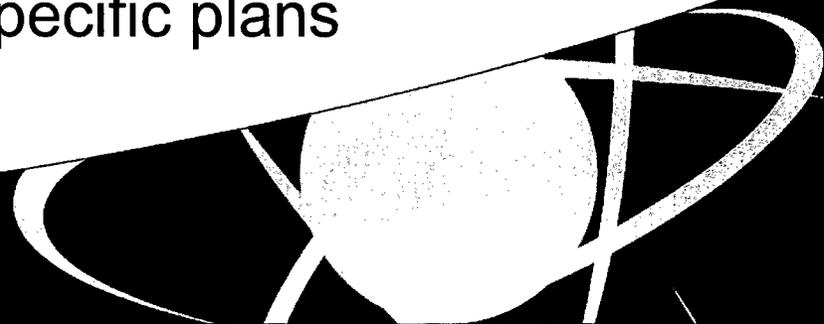
John Hayes

U.S. Nuclear Regulatory Commission

# U. S. Army Application



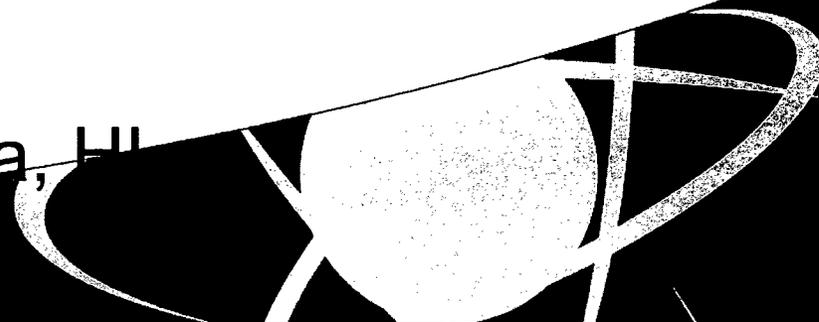
- NRC Part 40 Source Material license
  - uranium or thorium in any physical or chemical form or combination  $>0.05\%$  weight
- Possession only request
- License will cover multiple Army locations
- Piecemeal incorporation of Army locations
- Initially, generic physical security and radiation monitoring plans with site specific plans



# Identified Army Depleted Uranium Sites



- Fort Benning, GA
- Fort Campbell, KY
- Fort Carson, CO
- Fort Hood, TX
- Fort Knox, KY
- Fort Lewis, WA
- Fort Riley, KS
- Schofield Barricks, HI
- Pohakuloa Training Area, HI



# Army Submittals of Interest



- US Department of Army Installations Application for Materials License; ADAMS No. ML090070095
- Final Schofield Characterization Survey Report; ADAMS No. ML090900423
- Final Schofield Makua Pohakuloa Scoping Surveys Tech Memo; ADAMS No. ML091170322
- Environmental Monitoring and Physical Security Plans. ADAMS No. Package ML091950280

# NRC Review Status

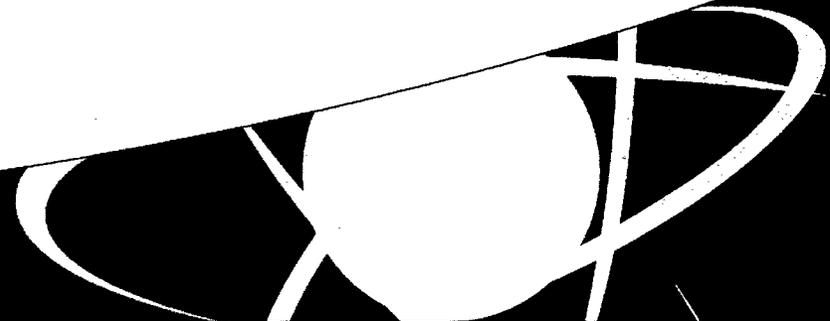
- NRC is reviewing the application now
- NRC will complete a Safety Evaluation Report
- Oct 13 – due date for request for hearing and comments



# NRC Review Activities



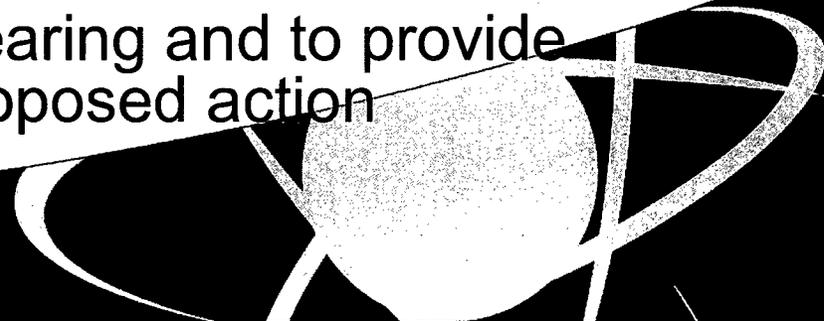
- November 6, 2008 – U. S. Army license application
- July 8, 2009 Submittal of Generic Physical Security and Radiation Monitoring Plans & Schofield and Pohakuloa Radiation Monitoring Plans
- August 3, 2009 - Application accepted for review by NRC
- August 13, 2009 - *Federal Register* notice offers an opportunity to comment and to request a hearing (74 FR 40855)



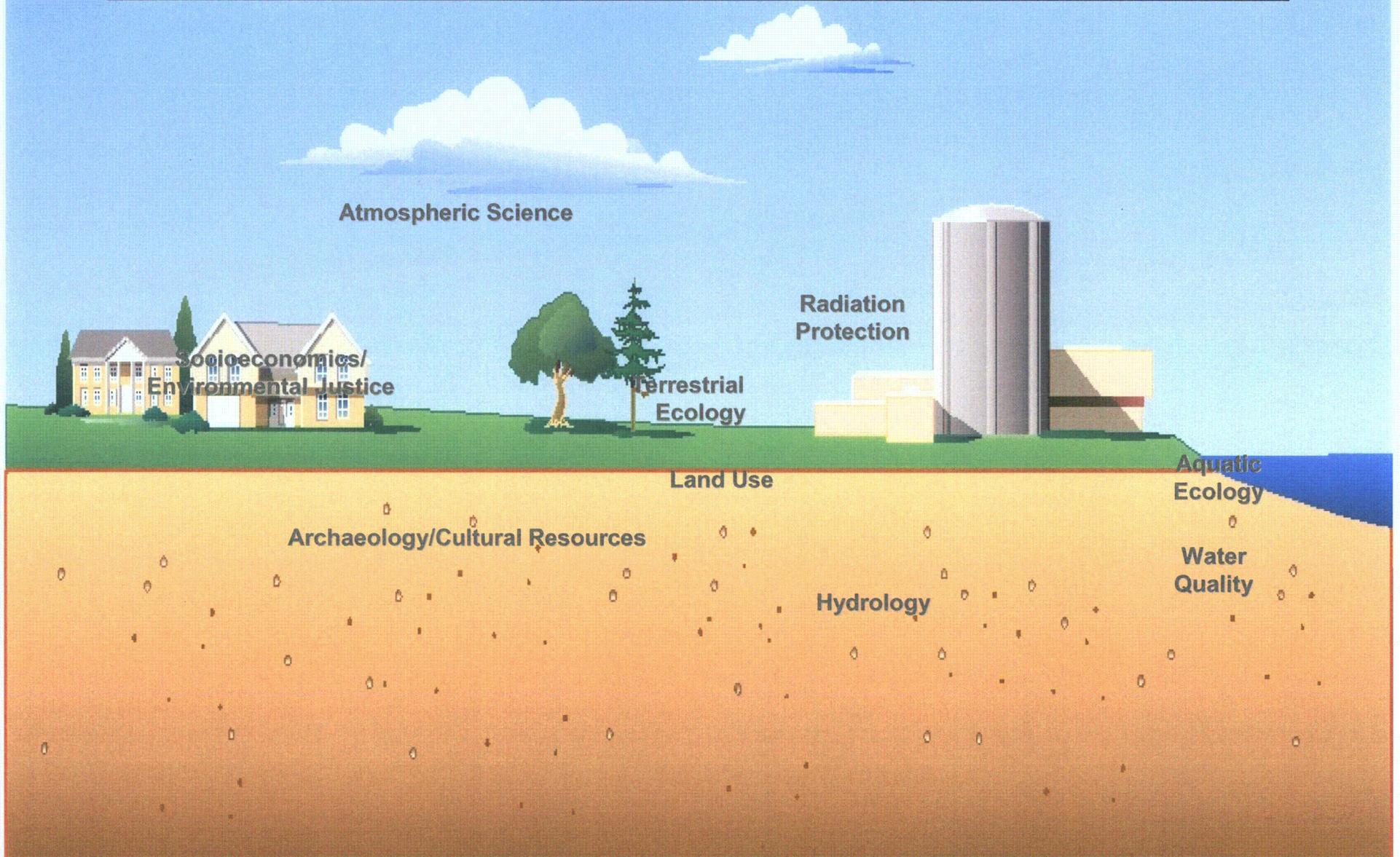
## **NRC Review Activities (continued)**

- August 24, 2009
  - Schofield Site Visit
  - Publicly Noticed Category 1 Meeting with Army
- August 25 - 27, 2009
  - Meet with Hawaii Department of Health
  - Category 3 Public Meetings at Wahiawa (Schofield) & Kona (Pohakuloa) & Hilo (Pohakuloa)
- October 13, 2009

Deadline to request a hearing and to provide comments on Army's proposed action



# Team Expertise



# Public Participation



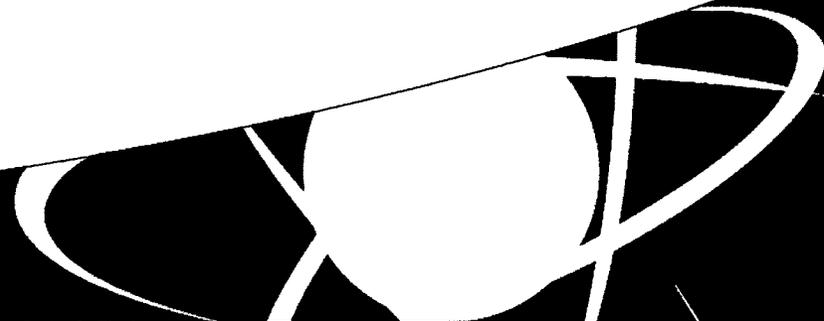
- Comments may be sent to:  
John Hayes  
U.S. Nuclear Regulatory Commission  
Two White Flint North, Mail Stop T8F5  
11545 Rockville Pike  
Rockville, MD 20852–2738

Telephone: (301) 415–5928;

Fax: (301) 415–5369;

e-mail: [john.hayes@nrc.gov](mailto:john.hayes@nrc.gov).

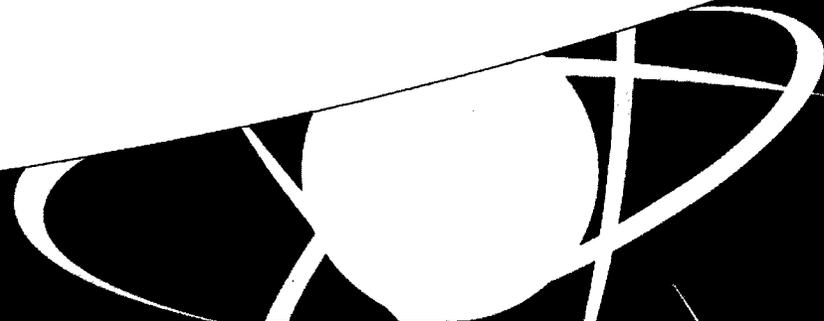
- Request a hearing by October 13, 2009, as described in the *Federal Register* notice.



# Summary



- NRC will independently determine if Army's physical security & radiation monitoring plans will protect public health & safety
- NRC will inspect Army's implementation of the physical security and radiation monitoring plans to ensure they are being performed as proposed
- NRC will assess the adequacy of radiation monitoring program as data is received to determine if changes to the program are warranted.
- NRC will take action it believes is necessary to protect public health & safety



# NRC Documents



- <http://www.nrc.gov/reading-rm/adams/web-based.html>
- Select “Begin ADAMS Search”
- Select “Advanced Search”
- Enter Docket Number “04009083”
- Use Date Added field to narrow search





**U.S. NRC**  
UNITED STATES NUCLEAR REGULATORY COMMISSION

*Protecting People and the Environment*

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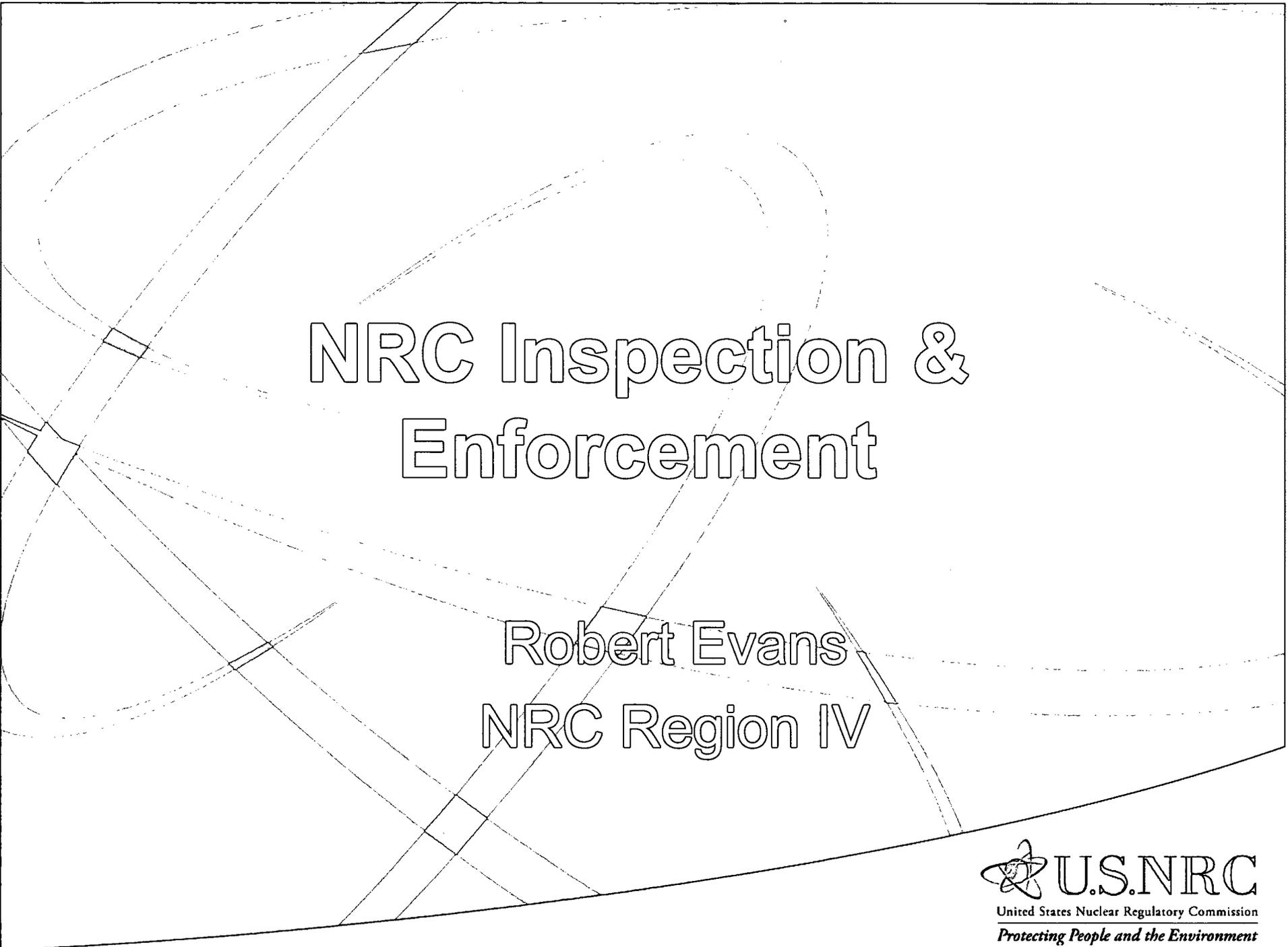
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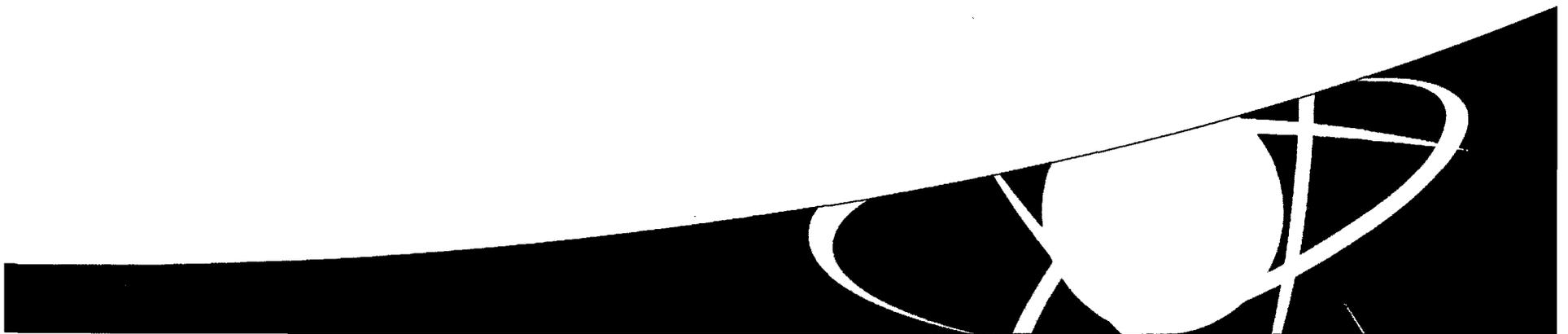
# NRC Inspection & Enforcement

Robert Evans  
NRC Region IV

# NRC Inspected Activities



- Compliance with commitments, regulatory requirements, and procedures
- Follow up on previously identified violations or weaknesses
- Significant changes in site staffing or procedures



# NRC Inspected Activities (continued)



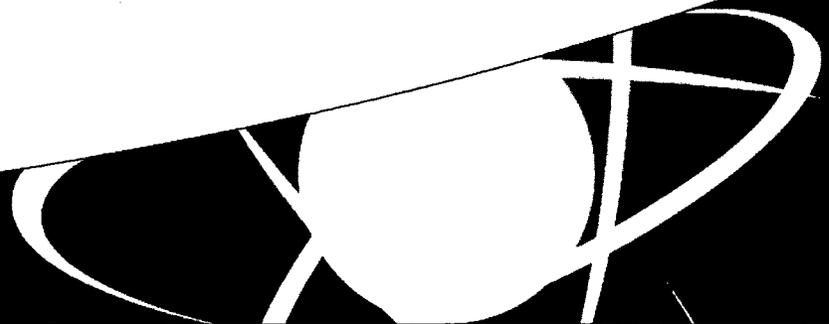
- Occupational exposure records and environmental monitoring results
- Removal or dismantlement of radioactive components
- Performance of radiological surveys



# Confirmatory Measurements



- Split sampling and side-by-side radiological surveys with licensees
- Soil and water samples analyses performed by an independent laboratory for analysis

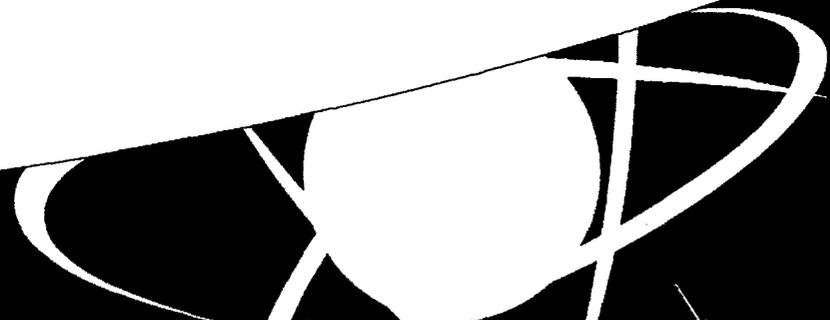


# Enforcement



## WHY ENFORCEMENT?

- Emphasize importance of compliance with regulatory requirements
- Encourage prompt identification and correction of compliance & license issues by licensees

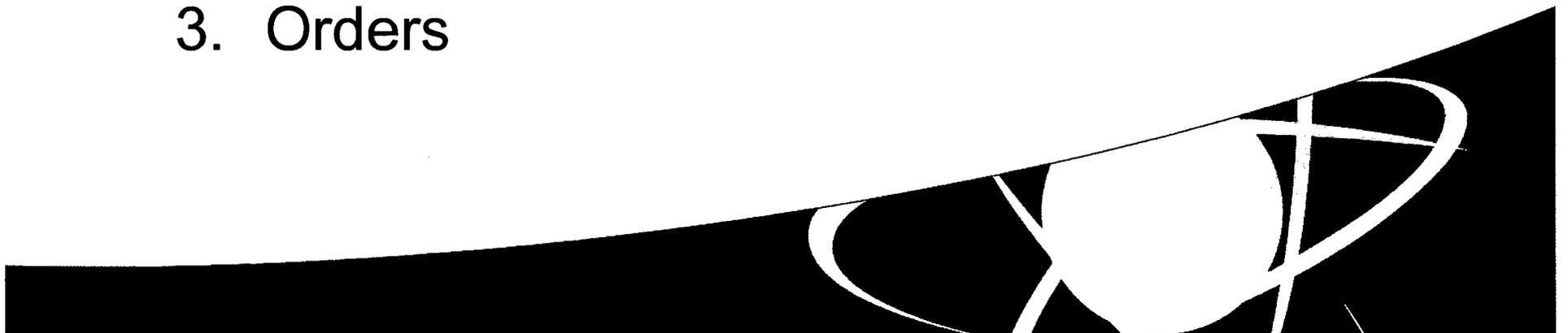


# Enforcement (cont.)



## Three Primary Enforcement Sanctions

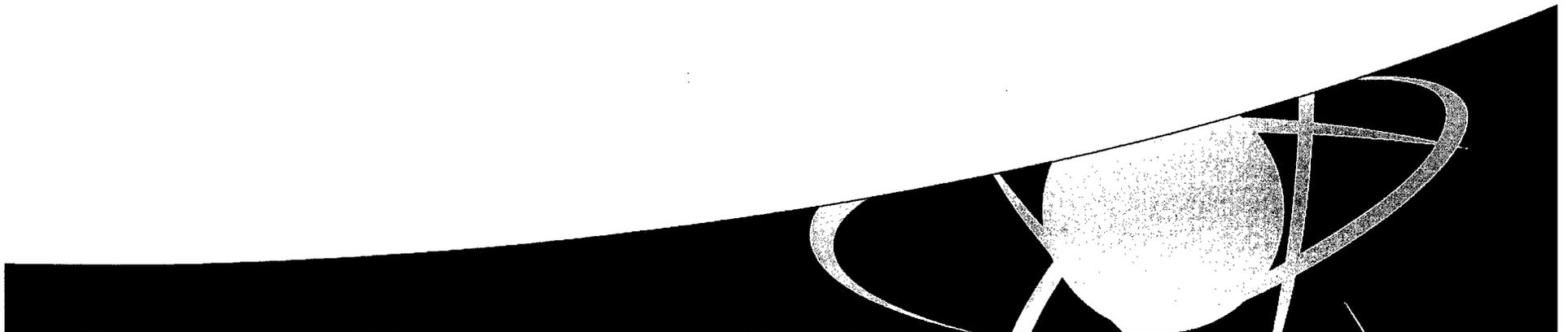
1. Notice of Violation
2. Civil Penalties
3. Orders



# Enforcement (cont.)



- Violations stem from non-compliances with regulations and/or license conditions
- Violations identified through inspections and investigations

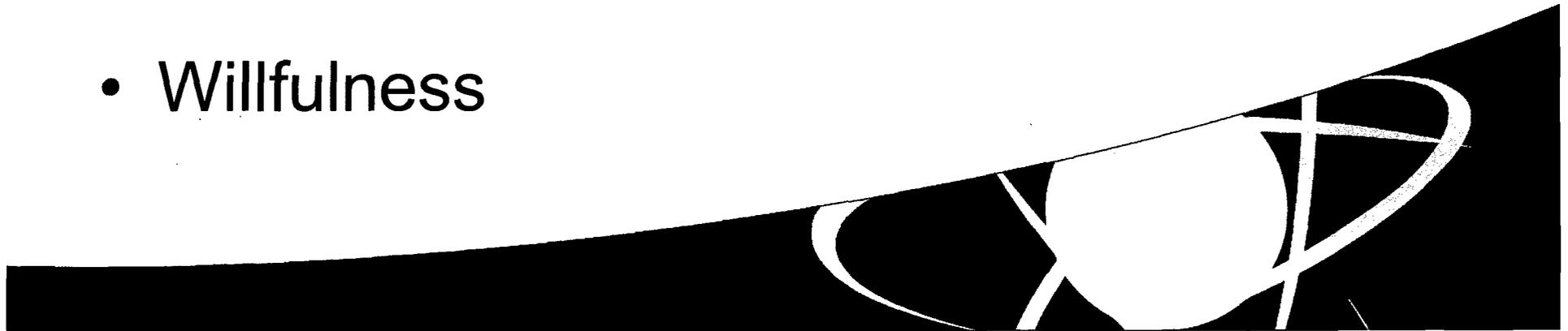


# Enforcement (cont.)



Basis for violation significance:

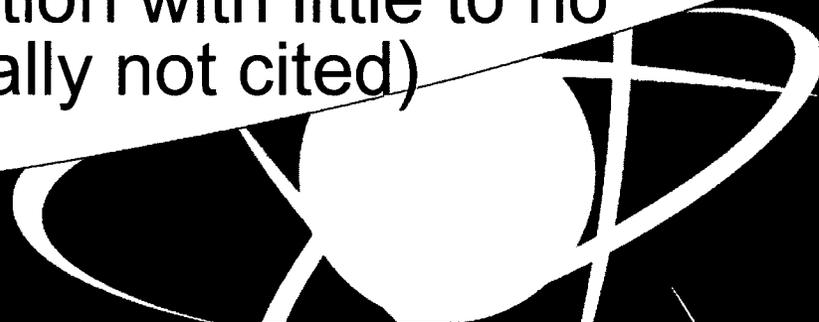
- Actual and potential safety consequences
- Potential impact on regulatory function
- Willfulness

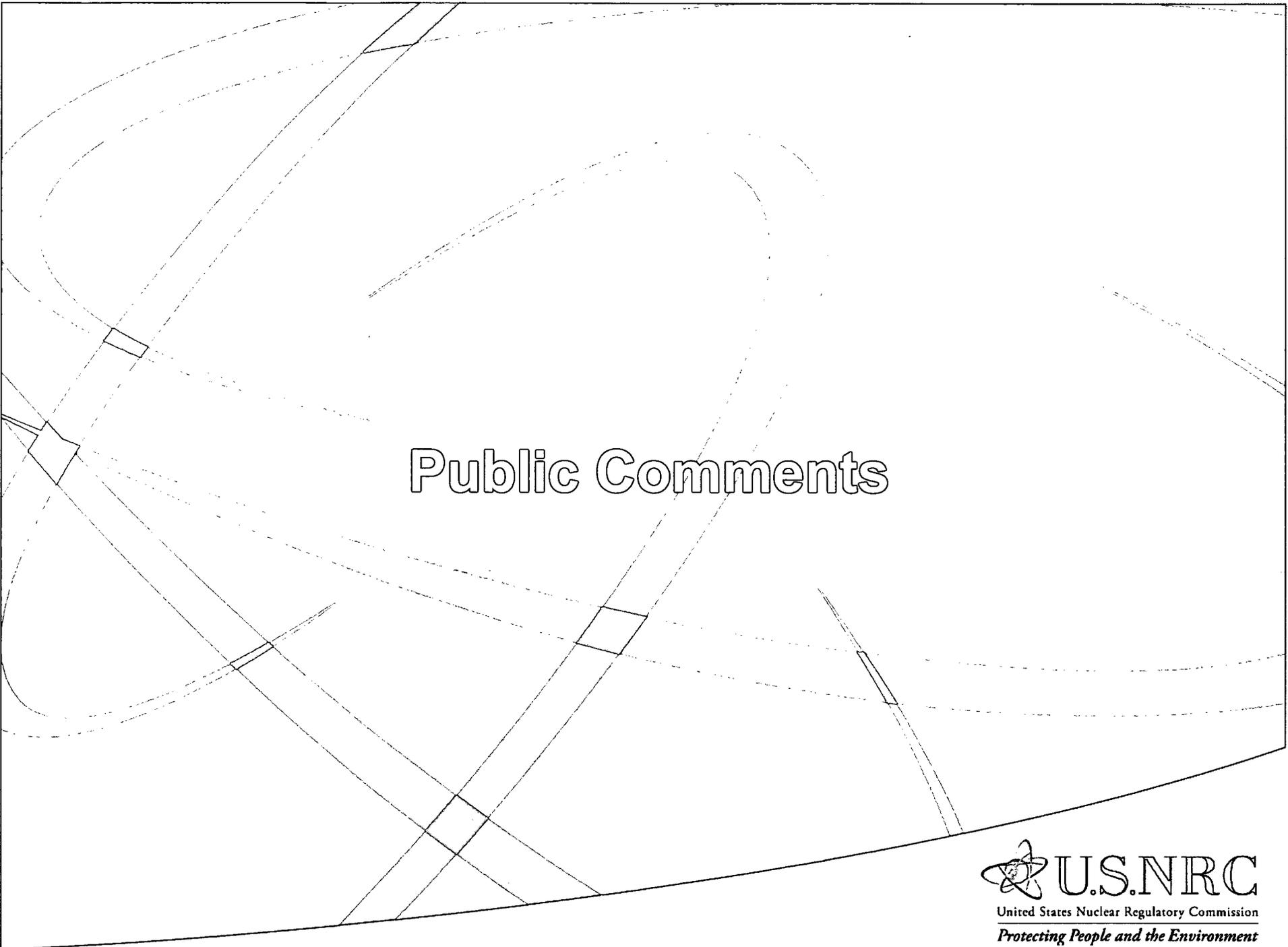


# Enforcement (cont.)



- Severity Level (SL) to violations
  - SL I most severe
  - SL II
  - SL III
  - SL IV least severe
- Non-Cited Violation – a SL IV violation that meets certain criteria
- Minor Violation – a violation with little to no safety significance (usually not cited)





# Public Comments