FUTURE LICENSING WORKSHOP

WELCOME

Marsha Gamberoni
NRR Future Licensing Organization

Purpose

To present an overview of the licensing processes and current activities associated with future licensing.

To provide an opportunity for external stakeholders to comment on the processes and raise issues.

Workshop Schedule

Wednesday, July 25, 2001

9:00 am - 9:15 am Statement of workshop protocol (F. Cameron)

9:15 am - 9:30 am Introduction, including a discussion of purpose for the workshop, background information, and workshop organization (M. Gamberoni)

9:30 am - 9:45 Keynote speaker William D. Travers
Executive Director for Operations
Nuclear Regulatory Commission

9:45 am - 10:00 am Break

10:00 am - 10:15 am Introduction of agenda topics (M. Gamberoni)

10:15 am - 11:15 am 10 CFR Part 52 overview and combined licenses (J. Wilson)

11:15 am - 12:00 pm Early site permits (T. Kenyon)

12:00 pm - 1:30 pm Lunch break

1:30 pm - 2:15 pm Design certification (J. Wilson)

2:15 pm - 3:00 pm Construction inspection and reactivation of construction permits (J. Sebrosky)

3:00 pm - 4:00 pm Rulemakings (E. Benner)
- Update to 10 CFR Part 52
- Alternate Site Reviews
- 10 CFR Part 51, Tables S3 and S4

4:00 pm - 5:30 pm Dinner Break

Wednesday, July 25, 2001

Evening Session

5:30 pm - 6:00 pm **Summarization of agenda topics (M. Gamberoni)**

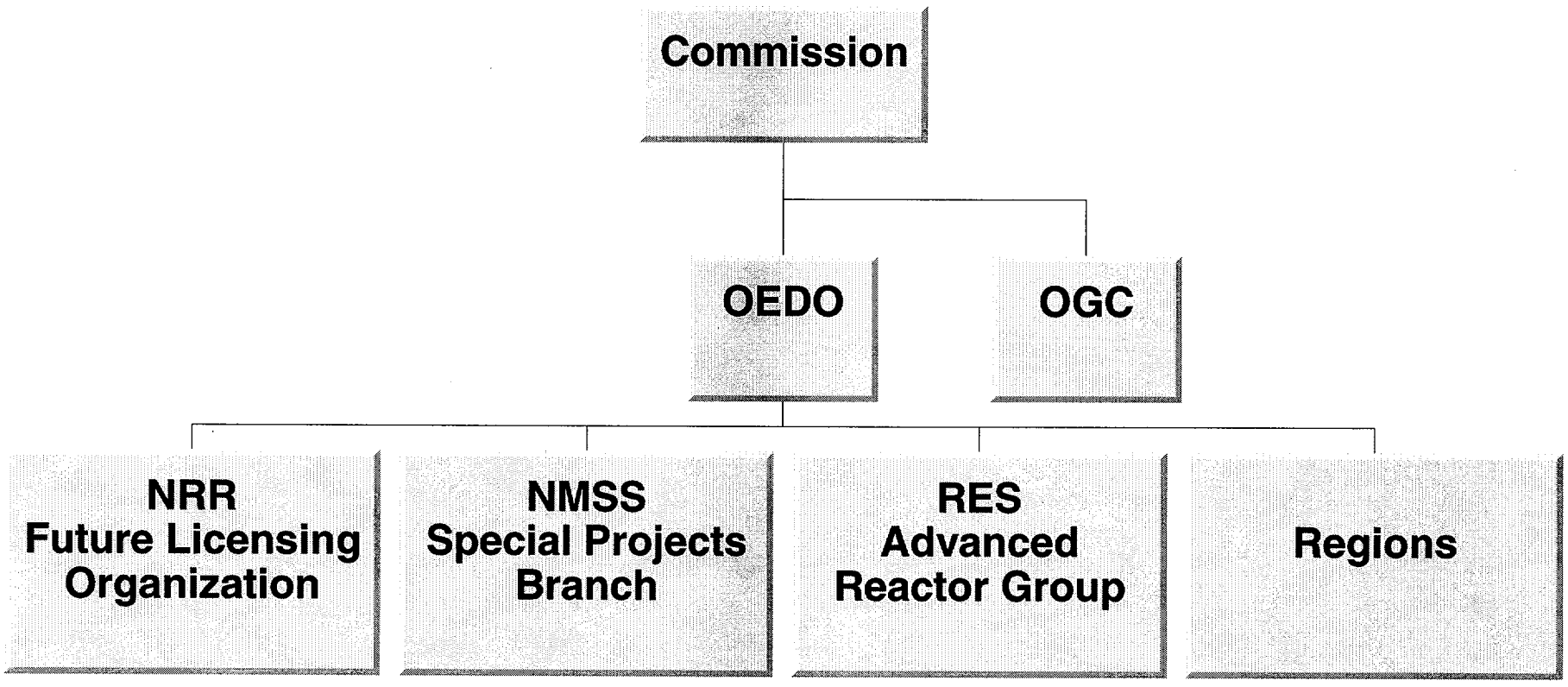
6:00 pm - 6:15 pm **Presentation of current mechanisms for public participation (M. Landau)**

6:15 pm - 8:00 pm **Open Discussion (All)**

Thursday, July 26, 2001

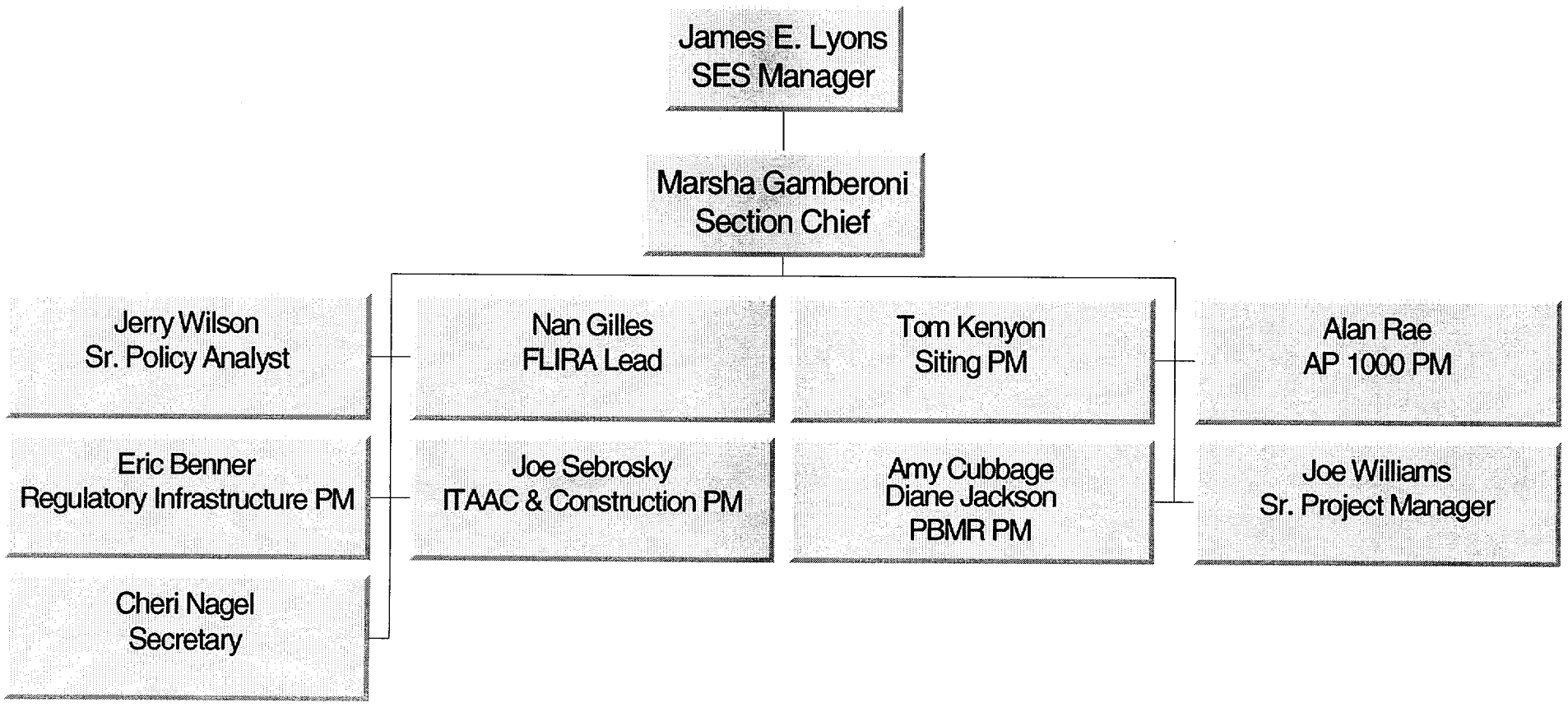
9:00 am - 9:10 am	**Introduction (M. Gamberoni)**
9:10 am - 9:30 am	**Readiness Assessment, Organizational Development, and Staffing (N. Gilles)**
9:30 am - 10:30 am	**Pre-application reviews and licensing approaches(D. Jackson/S. Newberry)** • **Westinghouse AP1000** • **Exelon Pebble Bed Modular Reactor (PBMR)** • **Westinghouse International Reactor Innovative and Secure (IRIS)** • **General Atomics Gas Turbine-Modular Helium Reactor (GT-MHR)**
10:30 am - 11:30 am	**Nuclear Fuel Cycle Issues (S. Steele/B.Leslie)**
11:30 am - 11:45 am	**Break**
11:45 am - 12:45 pm	**Open Discussion (All)**
12:45 pm - 1:00 pm	**Statement of appreciation and followup activities (J. Lyons)**
1:00 pm	**Adjourn**

NRC Organization



Future Licensing Organization

Staffing



Future Licensing Organization

Near-term Objectives

- Provide central point of contact for NRR future licensing efforts
- Manage current activities
  - Pre-application reviews
  - Rulemaking
- Coordinate FLIRA
- Stakeholder interactions

Office of Nuclear Materials Safety & Safeguards

What We Do:

- Uranium Recovery Operations
- Uranium Conversion & Enrichment
- Nuclear Fuel Manufacturing
- High Level Waste Storage, Transportation, Disposal
- Low Level Waste Storage, Transportation, Disposal
- Fresh/Spent Fuel Storage Canisters/Transportation

Office of NMSS

Office of Nuclear Material Safety and Safeguards

Martin J. Virgilio, Director
Margaret V. Federline, Deputy Director

Program Management Policy Development and Analysis Staff

John J. Linehan, Director
Dan Gillen, Deputy Director

Division of Fuel Cycle Safety and Safeguards

Michael F. Weber, Director
Robert C. Pierson, Deputy Director

Division of Industrial and Medical Nuclear Safety

Donald A. Cool, Director
Susan M. Frant, Deputy Director

Division of Waste Management

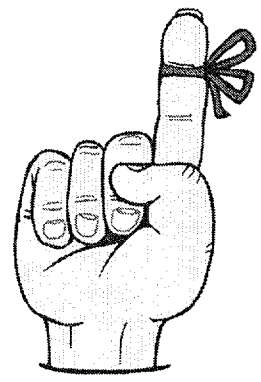
John T. Greeves, Director
Josephine M. Piccone, Deputy Director

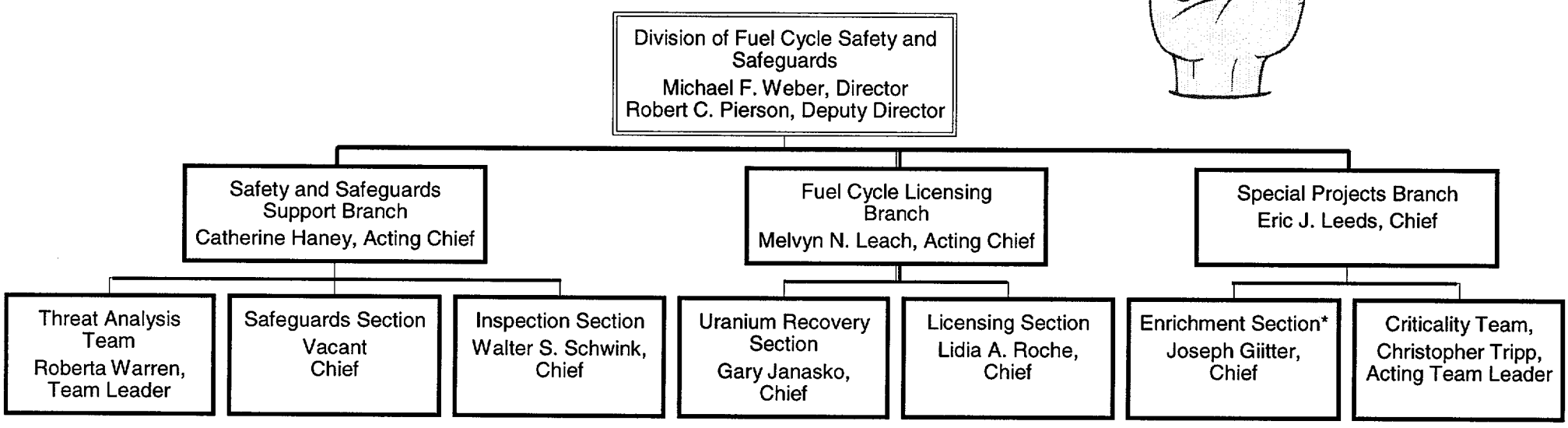
Spent Fuel Project Office

E. William Brach, Director
M. Wayne Hodges, Deputy Dir.
Charles Miller, Deputy Director

Office of NMSS

Division of Fuel Cycle Safety and Safeguards



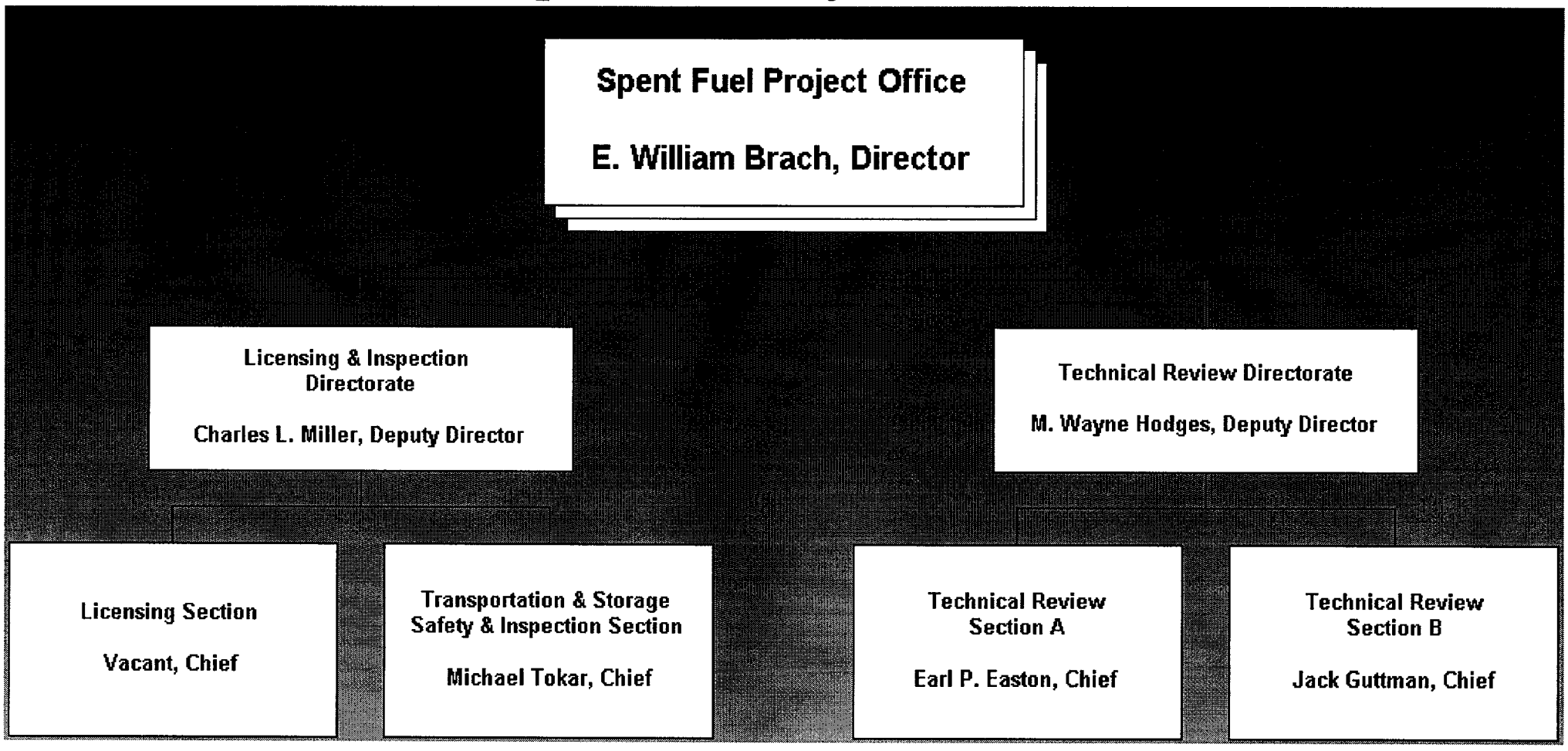


Office of NMSS

Division of Waste Management

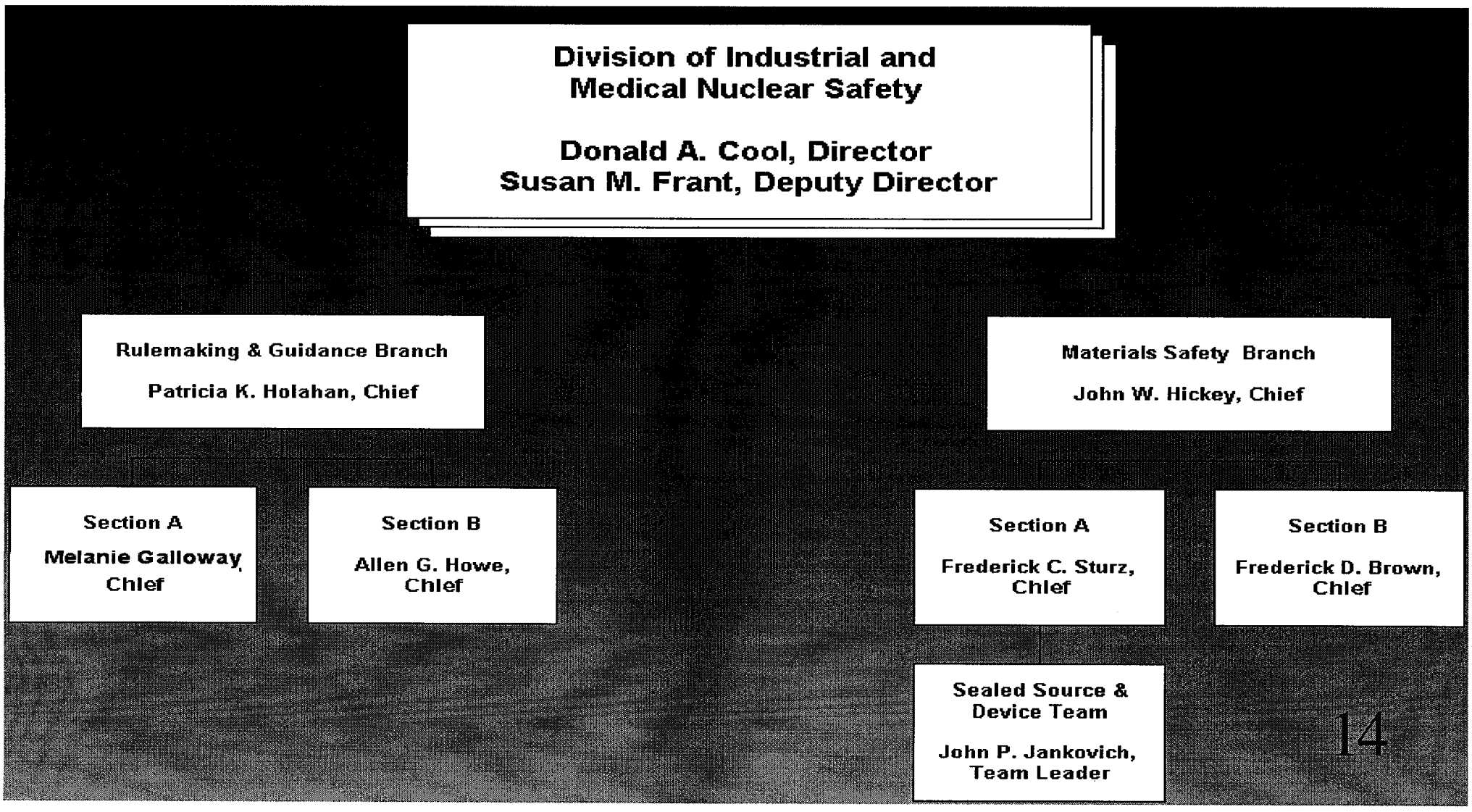
Office of NMSS

Spent Fuel Project Office



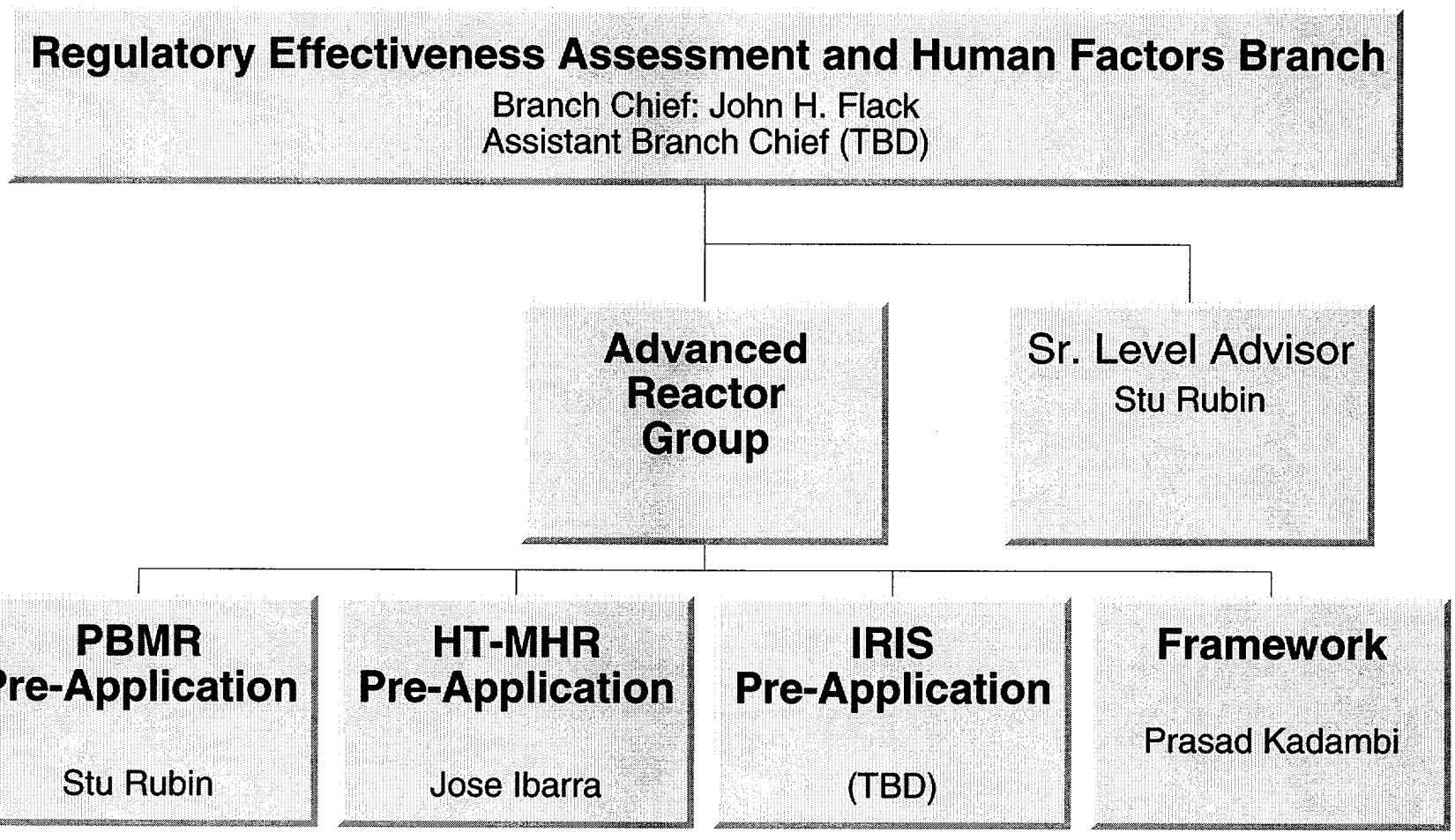
Office of NMSS

Division of Industrial and Medical Nuclear Safety



RES Advanced Reactor Group

Staffing

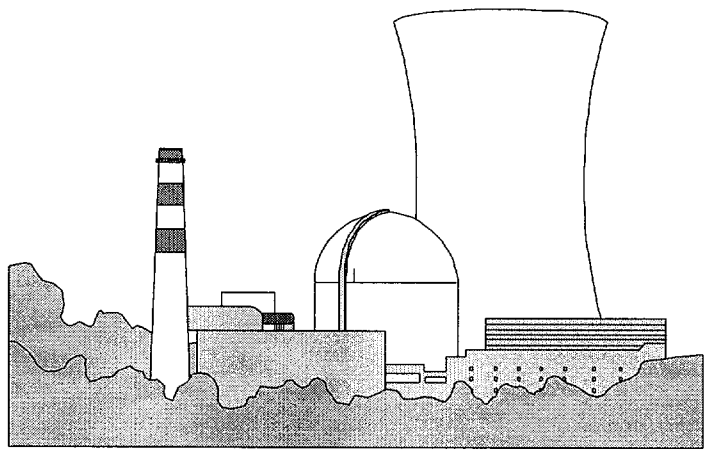


Advanced Reactor Group

Near-term Objectives

- Provide central point of contact for RES advanced reactor research activities
- Current activities
  - Pre-application review of non-LWR designs
  - Generation IV
  - Framework
- Matrix in RES Expertise
- As practicable, capitalize on Agency expertise
- Stakeholder interactions

Licensing under Part 52



Jerry N. Wilson, PE
U.S. Nuclear Regulatory Commission

Part 50 Licensing Process

- Public participation is difficult in the 10 CFR Part 50 process because few design details are available at construction stage
- Construction often had to wait for design completion
- Construction rework was needed because of design changes and regulatory backfits
- Final safety decisions are not made until the nuclear plant is nearly complete
- Public participation was difficult at the operating license stage because the nuclear plant was nearly complete
- Major costs expended before final design approved, resulting in an economic risk for the electric company

Goals for Part 52 Process

- Stable and predictable licensing process
- Resolve safety and environmental issues before authorizing construction of the nuclear plant
- Reduce financial risks to licensees (COL)
- Enhance safety and reliability through standardization of nuclear plant designs

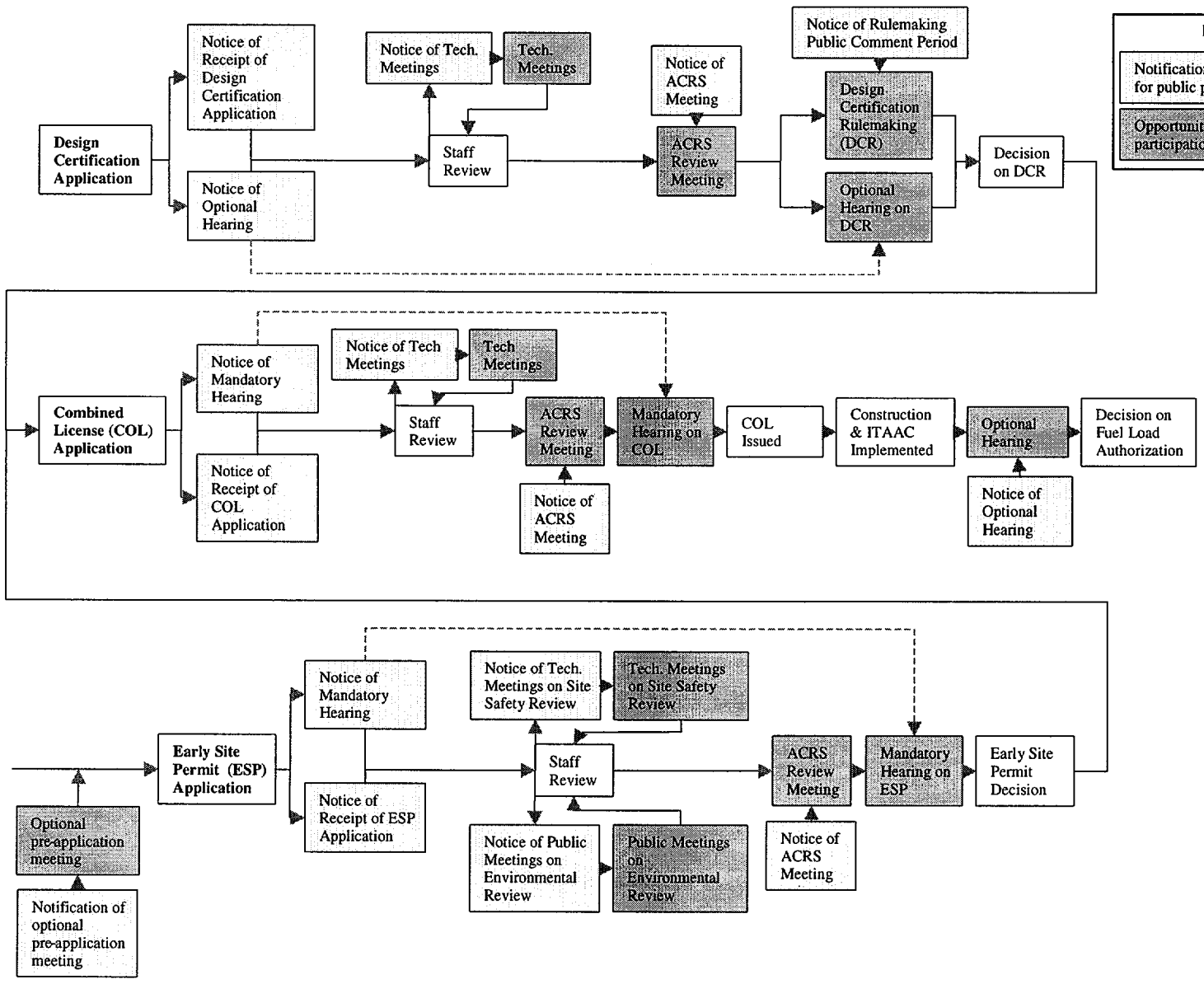
Part 52 Licensing Process

- Provides for public participation at the design stage and prior to siting and construction of nuclear power plants
- Final design complete prior to starting construction
- Resolves safety and environmental issues before construction
- Resolves inspection requirements & acceptance criteria (ITAAC) prior to authorization of construction
- Facilitates standardization of nuclear plant designs
- Reduces financial risks for holders of a combined license

10 CFR Part 52

- Early Site Permits
- Design Certifications
- Combined Licenses
- Appendices M, N, O & Q

10 CFR Part 52 Process

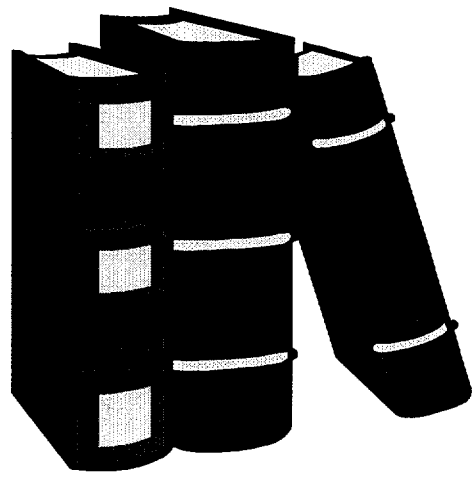


Combined Licenses

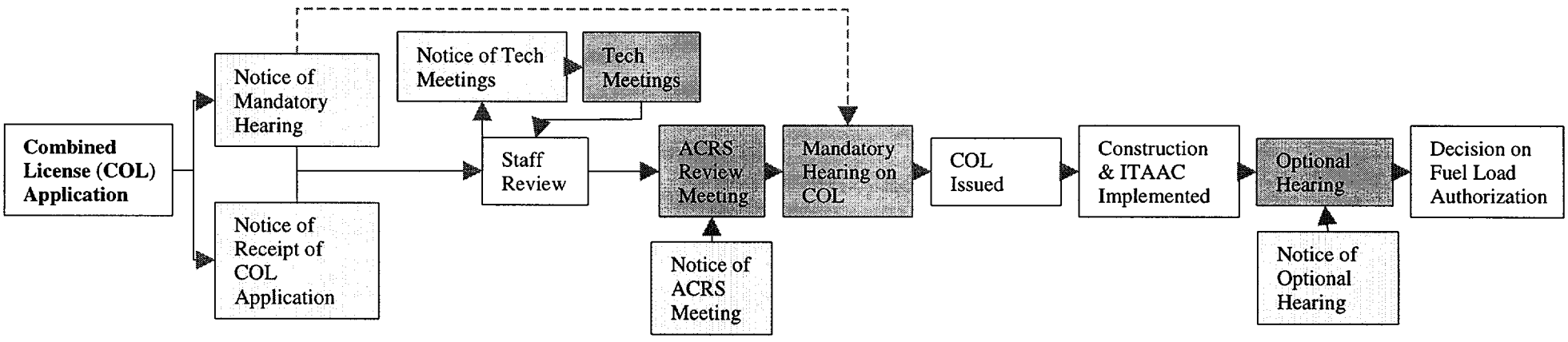
- Combined License (COL) = a combined construction permit and conditional operating license for a nuclear power plant.
- A COL is the fundamental licensing process in Part 52 for reducing the financial risks for electric companies building nuclear plants.
- NRC has initiated a rulemaking to update and clarify the alternative licensing processes in Part 52.
- NRC is planning for the first COL application in late-2002.

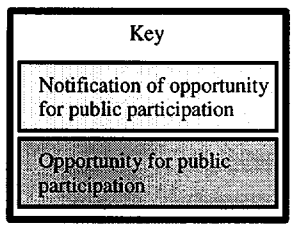
Regulations and Guidance

- Subpart C to 10 CFR Part 52
- Parts 20, 50, 51, 55, 73 & 100
- Regulatory Guides
- Standard Review Plan
- SECY-00-0092 (4/20/2000)

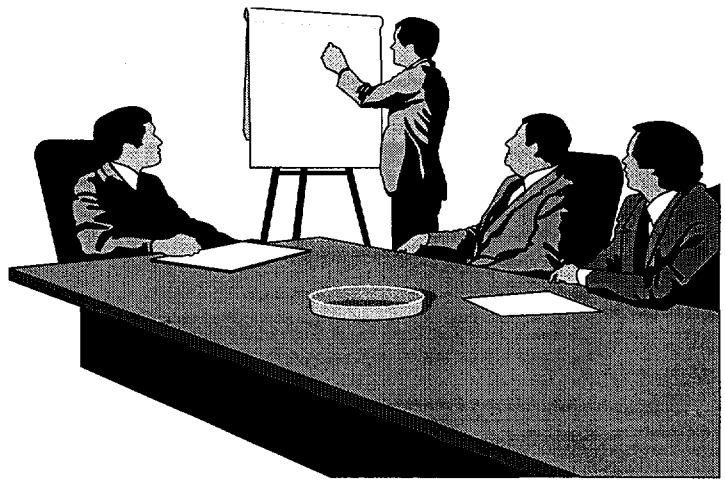


Combined License Process





Public Involvement



- Public meetings
  - Pre-application review
  - NRC staff review
  - Advisory Committee on Reactor Safeguards
- Opportunity to participate in a hearing

Where Can I Find the Results?

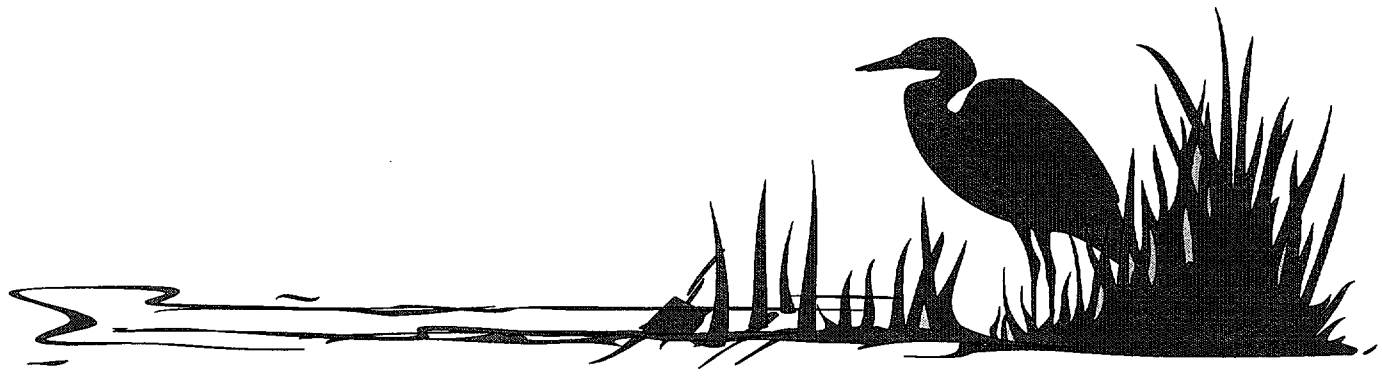
- Meeting summaries
- Final Safety Evaluation Reports

NRC Mission
(continued)

- NRC governed by:
  - Atomic Energy Act
  - Energy Reorganization Act
  - Energy Policy Act of 1992

Early Site Permit Activities

Thomas J. Kenyon, NRR Future Licensing Organization



Introduction

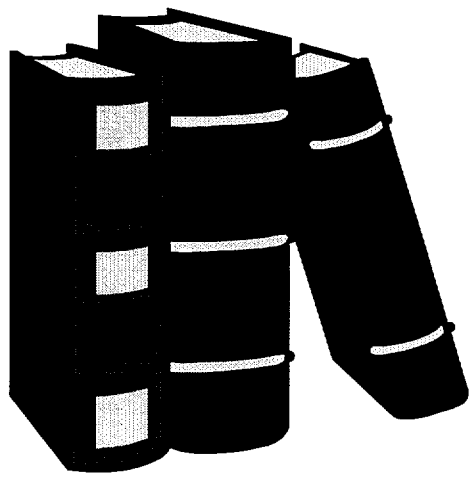
- Background and Purpose
- Early Site Permit Review Process
- Schedule
- Public participation

What are Early Site Permits?

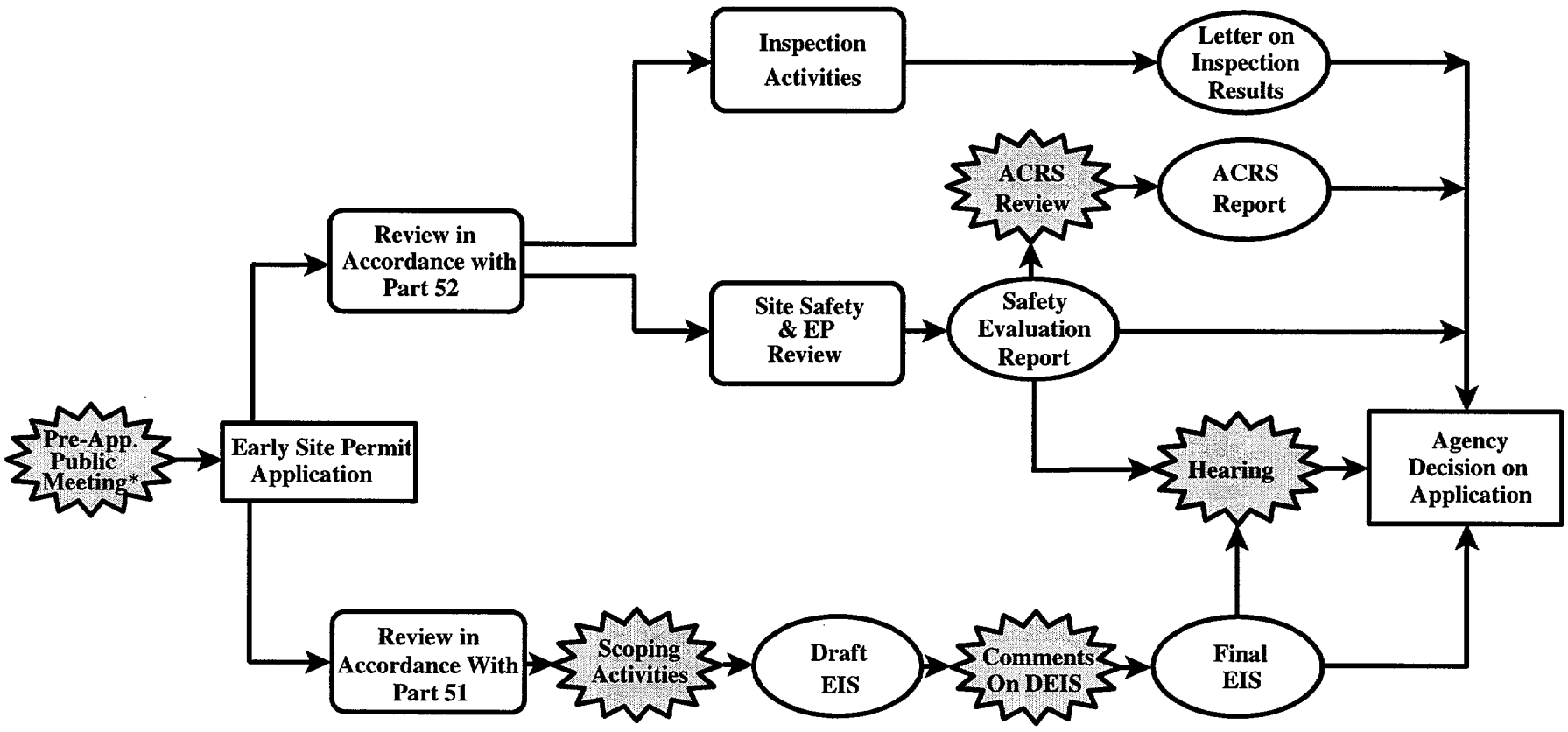
- Allows applicant to "bank" a site
- 10 - 20 years
- Reduces licensing uncertainty
- Site-related issues resolved early

Regulations and Guidance

- Subpart A to 10 CFR Part 52
- Regulatory Guides
- Standard Review Plan
- Environmental Standard Review Plan
- Other



Early Site Permit Review Process



Formal Public Participation

* *Not required*

Site Safety and Emergency Preparedness Review Process

- Review
- Issue intermediate Safety Evaluation Report
  - open items
  - confirmatory items
- Publish final Safety Evaluation Report

Site Safety Review

- Seismology
- Geology
- Hydrology
- Meteorology
- Geography
- Demography (population distribution)
- Site Hazards Evaluation

Site Safety Review
(continued)

- Evaluate application and other related information
- Visit site to evaluate
    - site layout and characteristics
    - data gathering activities

Emergency Preparedness Review

- Evaluate proposed emergency plan, or emergency preparedness information

- Visit site to evaluate
  - physical impediments
  - population distribution
  - transportation routes

- Federal, State, & local officials
  - Federal Emergency Management Agency (FEMA)

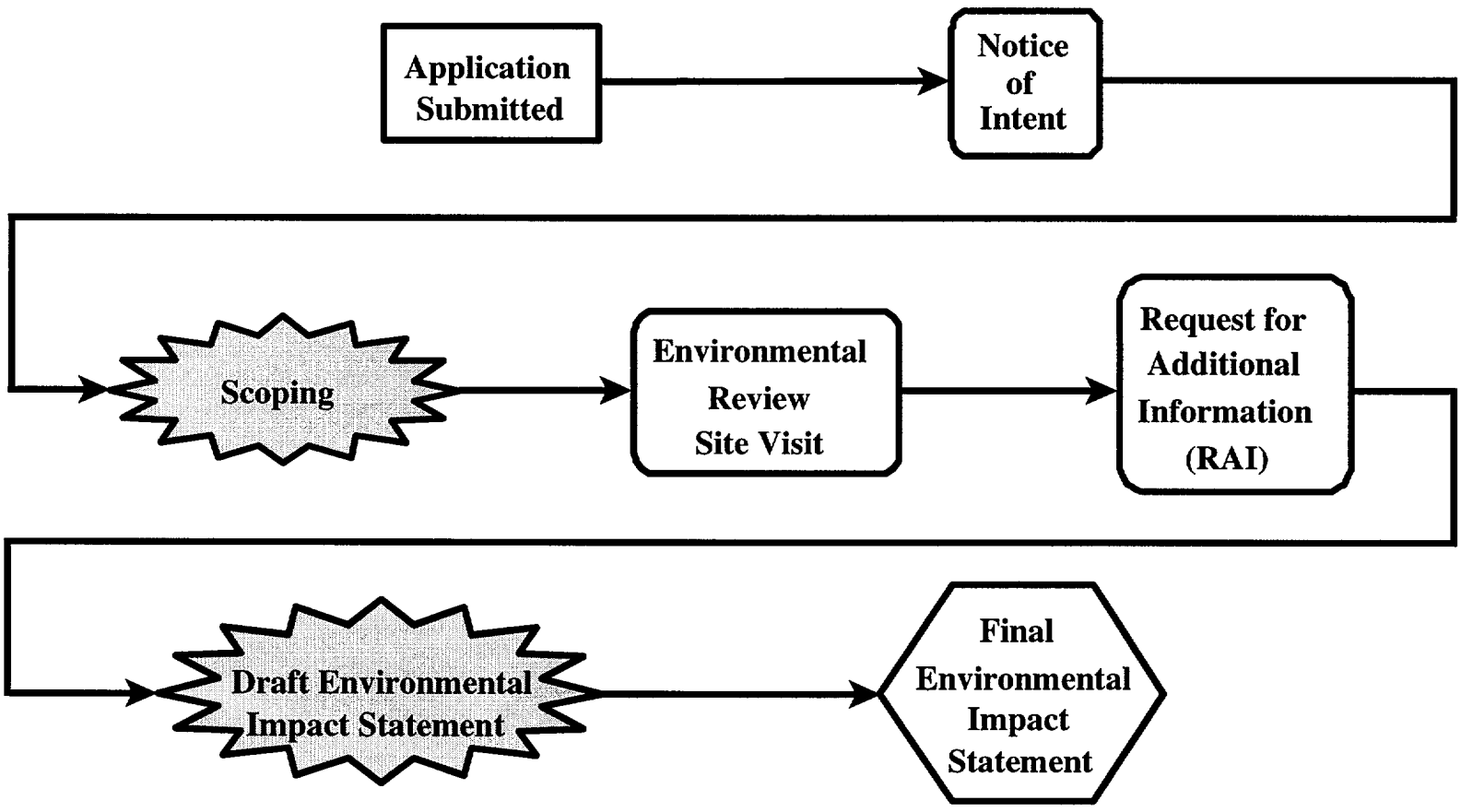
National Environmental Policy Act

- Federal agencies must use a systematic approach to consider environmental impacts

- Environmental Impact Statement (EIS) required for major Federal actions significantly affecting the quality of the human environment

- Approval of Early Site Permits is considered a major Federal action

Environmental Review Process



Formal Public Participation

NEPA Process

- Notice of Intent - notifies public of NRC's plans to prepare an Environmental Impact Statement

- Scoping Process - identifies scope of Environmental Impact Statement and solicits public input

  - Public Meeting
  - Public Comment Period

NEPA Process
(continued)

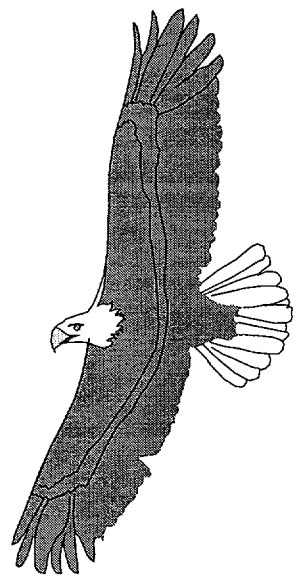
- Review - evaluates environmental impacts, alternatives, & mitigation measures

- Issue draft Environmental Impact Statement for public comment
  - Public Meeting
  - Public Comment Period

- Issue final Environmental Impact Statement

Areas Reviewed

- Surface water quality, hydrology, & use
- Aquatic ecology
- Ground-water use & quality
- Threatened or endangered species
- Air quality
- Land use
- Uranium fuel cycle & waste management



Areas Reviewed
(continued)

- Human health
- Socioeconomics
- Postulated accidents
- Decommissioning
- Environmental justice
- Alternative sites

Issues Not Considered In Environmental Review

- Need for power
- Cost of power

Public Involvement

- Pre-application public meeting at site
- Public interaction during environmental review
  - 2 comment periods
  - 4 public meetings
- Technical meetings

Public Involvement
(continued)

- Atomic Safety Licensing Board hearing
  - Opportunity to participate provided
- Advisory Committee on Reactor Safeguards
  - Independent review
  - Advises Commission
  - Public meetings

Where Can I Find the Results?

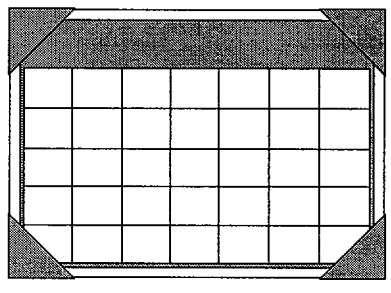
- Safety Evaluation Report
  - Site Safety
  - Emergency Preparedness
- Environmental Impact Statement
  - Environmental Protection
- Meeting summaries
- Inspection reports

Early Site Permit Approval

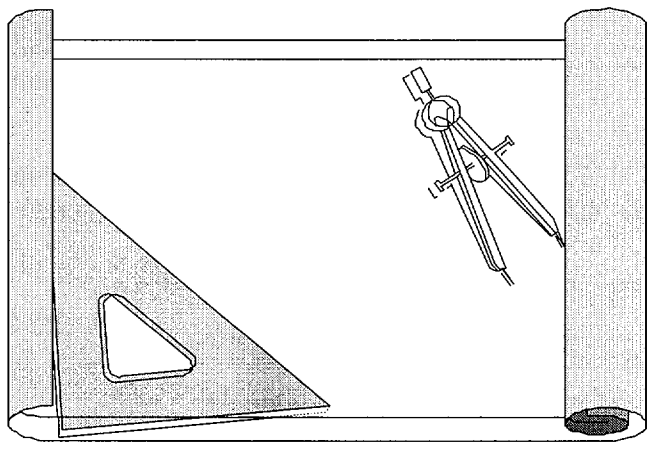
- Commission interaction
- Early Site Permit authorization
  - Director of Nuclear Reactor Regulation

Application Schedule

- 1st application - July 2002
- 2 applications - 2003
- 1 application - 2004



Design Certifications



Jerry N. Wilson, PE
NRR Future Licensing Organization

Agenda

- Background and Purpose
- Design Certification Review Process
- Public Participation
- Standard Nuclear Plant Designs

What is Design Certification?

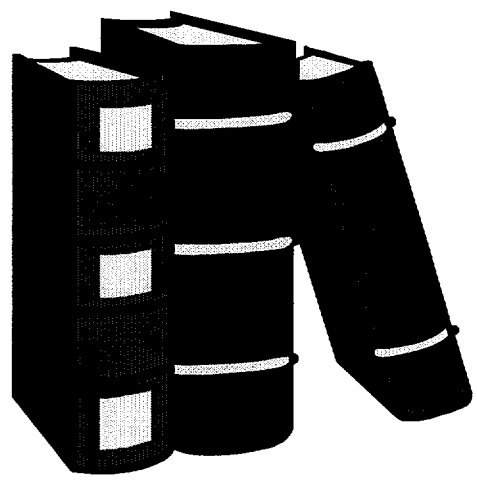
- Allows an applicant to pre-approve a standard nuclear plant design
- 15 year duration
- Reduces licensing uncertainty
- Facilitates standardization

Review scope

- Essentially complete design
- Final design information
- Site design parameters
- Interface requirements
- Inspections, Tests, Analyses, and Acceptance Criteria

Regulations and Guidance

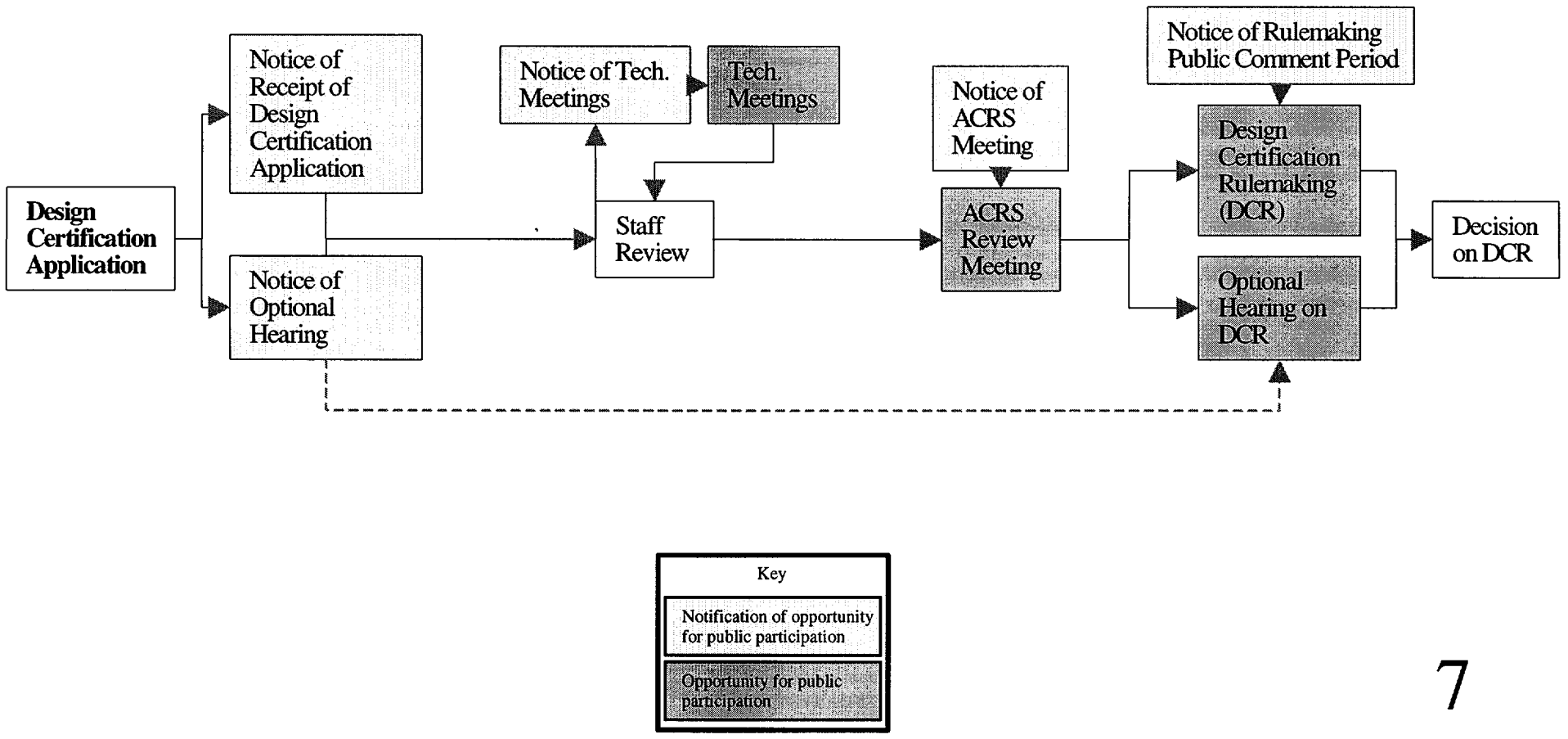
- Subpart B to 10 CFR Part 52
- Regulatory Guides
- Standard Review Plan
- SECYs on Policy Issues
- History (ML003761550)



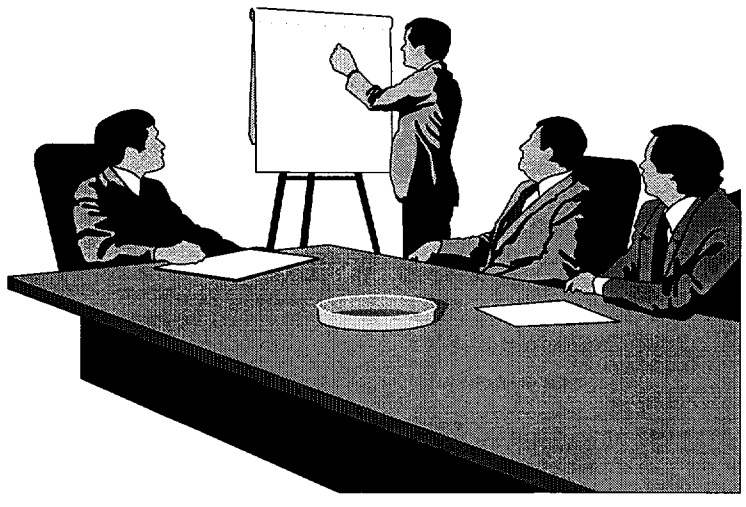
Areas not reviewed

- Environmental impact
- Operational programs
- Site safety (seismology)
- Site-specific design features
- Selected design areas

Design Certification Process



Public Involvement



- ▸ Public meetings
  - Pre-application review
  - NRC staff review
  - Advisory Committee on Reactor Safeguards
- ▸ Comment on proposed rule
- ▸ Opportunity to participate in a hearing

Where Can I Find the Results?

- Meeting summaries
- Final Safety Evaluation Reports
- Design certification rules
- Appendices A, B, and C to Part 52

Standard Design Certifications

- Advanced Boiling Water Reactor - GE Nucear Energy
  Design Certification approved May 2, 1997
- System 80+ Standard Plant Design - Westinghouse
  Design Certification approved May 7, 1997
- AP600 Standard Plant Design - Westinghouse
  Design Certification approved December 16, 1999
- AP1000 Standard Plant Design - Westinghouse
  Pre-application review underway & application in 2002?

Construction Inspection and Reactivation of Construction Permits

Joe Sebrosky, NRR Future Licensing Organization

Construction Inspection Program

- ITAAC and Construction Inspection Program
- Programmatic ITAAC
- Construction Inspection Program Reactivation

ITAAC and Construction Inspection Program

- Inspections, Tests, Analyses and Acceptance Criteria (ITAAC)
  - Concept developed for Part 52
- Goals for Part 52 Process
  - Stable and predictable licensing process
  - Reduce financial risks to COL holders
  - Resolve safety and environmental issues before starting construction
  - Enhance safety and reliability through standardization of designs

ITAAC and Construction Inspection Program

- Program for verifying that the facility has been constructed and will be operated in conformity with the license, the provisions of AEA, and the Commission's rules and regulations.
- Design Certification under Part 52
  - Advanced Boiling Water Reactor - GE Nuclear Energy
  - System 80+ Standard Plant Design - Westinghouse
  - AP600 Standard Plant Design - Westinghouse

Programmatic ITAAC

- Staff is seeking public comment on programmatic ITAAC
  - Should a COL application contain ITAAC on operational programs such as security, training and emergency planning (programmatic ITAAC)
- Background Documents
  - SECY-00-0092, "Combined License Review Process"
  - SRM on SECY-00-0092, dated September 6, 2000
  - May 14, 2001, letter from NEI to Chairman

Programmatic ITAAC

- Federal Register Notice Issued June 25, 2001, seeking public comment
- Public Comment Period ends August 8, 2001

Construction Inspection Program Reactivation

Input for future licensing inspection and readiness assessment (FLIRA)

- Licensing Scenarios
  - Reactivated Plant
  - Standard Design
  - Custom Design
- Resource Estimate
  - Identify the work that needs to be done
  - Estimate resources to perform the work
  - Identify the critical skills that will be needed

Construction Inspection Program Reactivation

FLIRA Guidance Documents

"Draft Report on the Revised Construction Inspection Program," October 1996

SECY-94-294, "Construction Inspection and ITAAC Verification"

SECY-91-041, "Early Site Permit Review Readiness"

SECY-89-104, "Assessment of Future Licensing Capabilities"

Construction Inspection Program Reactivation

Challenges

- Draft CIP report identifies:
  - Actions associated with future CIP reactivation
  - Agency and programmatic policy issues
  - Inspection Manual Chapters 2511 through 2514 need to be updated

Construction Inspection Program Reactivation

Challenges

- SECY Papers and Draft CIP report do not recognize:
  - Custom plant scenario (e.g., the PBMR will not be referencing a certified design)
  - Compressed construction schedule
    - SECY 89-104 assumed 13 years from time of CP application to commercial operation of the plant
    - Draft CIP report assumed 54 months from first concrete pour to commercial operation (48 months until fuel load)
    - Approximately 36 months for the AP600, and 20 months for the PBMR
  - Use of risk insights in CIP (Draft CIP report does recognize that it should be an input)
  - Inspection Manual Chapters 2511 through 2514 all have light water reactor in their title

Rulemakings

Eric Benner, NRR Future Licensing Organization

Rulemakings

- General Rulemaking Process
- Specific Rulemakings:
  - Update to 10 CFR Part 52
  - Alternative Site Reviews
  - 10 CFR Part 51, Tables S-3 and S-4

General Rulemaking Process

- NRC has responsibility to establish regulations on the safe use of nuclear materials.

- Process is called rulemaking.

- Petitions

General Rulemaking Process

- Proposed rule in Federal Register
- Comment period
- Final rule in Federal Register.

General Rulemaking Process

- NRC "RuleForum" web site:

http://ruleforum.llnl.gov/

Specific Rulemakings

Update to 10 CFR Part 52

- What is 10 CFR Part 52:
  - Alternatives to the traditional two-step licensing process in 10 CFR Part 50
  - Alternatives include the use of early site permits, standard design certifications, and combined licenses

Specific Rulemakings

Update to 10 CFR Part 52

- Why does this rule need to be revised:
  - To incorporate lessons learned from previous design certifications and to correct known problems.

Specific Rulemakings

Update to 10 CFR Part 52

- Where does the rulemaking stand:
  - Letters issued to interested stakeholders on September 9, 1999, to solicit comment.
  - Received comments are being incorporated and the staff intends to publish a proposed rule in the Federal Register for public comment in November 2001.
  - Rulemaking plan is currently published on Ruleforum:

    http://ruleforum.llnl.gov/cgi-bin/rulemake?source=LL_PLAN

Specific Rulemakings

Alternative Site Reviews

- Where are alternative site reviews addressed:
  - 10 CFR Part 51 requires consideration of alternatives to proposed actions.
  - Guidance in Regulatory Guide 4.2, "Preparation of Environmental Reports for Nuclear Power Plants" (July 1976), and in NUREG-1555, "Environmental Standard Review Plan" (March 2000).

Specific Rulemakings

Alternative Site Reviews

- Why does this rule need to be revised:
  - Both documents reflect older industry structure.
  - Rulemaking will account for industry deregulation and restructuring, consider the recent evolution of the siting process, and reduce uncertainty in the licensing process.

Specific Rulemakings

Alternative Site Reviews

- Where does the rulemaking stand:
  - The staff has recently developed a compilation of history and issues associated with alternative site reviews to support development of a rulemaking plan

Specific Rulemakings

10 CFR Part 51, Tables S-3 and S-4

- What are Tables S-3 and S-4:
  - Generically address the environmental impacts associated with the uranium fuel cycle.

Specific Rulemakings

10 CFR Part 51, Tables S-3 and S-4

- Why do these tables need to be revised:
  - To update environmental data and to consider changes in the industry

Specific Rulemaking

10 CFR Part 51, Tables S-3 and S-4

- Where does the rulemaking stand:
  - The staff has recently developed an estimation of the resources necessary to develop the rule and of the proposed schedule for the rule.

Future Licensing and Inspection Readiness Assessment (FLIRA)

Nanette Gilles, NRR Future Licensing Organization

Future Licensing and Inspection Readiness Assessment (FLIRA)

- February 13, 2001 Staff Requirements Memorandum

- FLIRA Report

- Readiness Challenges

- Key Assumptions

February 13, 2001 Staff Requirements Memorandum (SRM)

- Assess technical, licensing and inspection capabilities

- Assess the regulatory infrastructure supporting Parts 50 and 52

- Integrate tasks with various related activities

Future Licensing and Inspection Readiness Assessment (FLIRA) Report

- Postulated scenarios, review durations, resource estimates
- Critical skills needed
- Necessary interfaces
- Recommendations and necessary follow-on activities

Readiness Challenges

- Understanding the technology
- Ability to independently confirm safety
- Developing and maintaining critical skills
- Industry plans and information
- Budget

Key Assumptions

- Industry plans and schedules
- High quality applications
- NRC independent review capability

Pre-Application Reviews

Diane Jackson, NRR Future Licensing Organization

Pre-Application Reviews

- Advanced Reactor Policy statement encourages early interaction with staff
- Pre-application review is not required for licensing
- No standard format for pre-application reviews
- Identify issues for:
  - Commission policy guidance
  - Staff technical resolution for design certification
  - Aid applicant in decision on application

Reactor Designs for Pre-application Review

- Current reviews:
  - AP1000
  - Pebble Bed Modular Reactor (PBMR)

- Expected reviews:
  - Gas Turbine- Modular Helium Reactor (GT-MHR)
  - International Reactor Innovative and Secure (IRIS)

AP1000

- 1000 MWe advanced passive light-water reactor
- Two-phase pre-application review
- Phase 1 estimated cost of performing Phase 2
- Current Phase 2 pre-application work
  - Addressing issues that could impact cost and schedule of design certification application
  - Applicability of selected items in AP600 approval to AP1000 design

AP1000 (cont.)

- Pre-application review expected to be completed in early 2002
  - Commission paper
- Expected Westinghouse application in mid-2002

Pebble Bed Modular Reactor (PBMR)

- High temperature helium-cooled reactor
- Multiple 100-MWe modular reactors per facility
- Pre-application review began April 30, 2001
- Technology Review
  - Review of selected technical topics
  - Staff review expected to be completed in Fall 2002
  - Two Commission papers and ACRS meetings planned

Pebble Bed Modular Reactor (PBMR) (cont.)

- Licensing Process Review
  - Review of selected legal, financial and regulatory licensing topics
  - Staff review expected to be completed in Fall 2001
  - Two Commission papers planned in November
  - ACRS meeting on Licensing Approach
- Future meetings tentatively planned for
  - August 15 - 16
  - September 19 - 20

Gas Turbine-Modular Helium Reactor (GT-MHR)

- 285 MWe high temperature helium cooled reactor
- Integrated reactor and power conversion system
- Request for pre-application review expected in late September

International Reactor Innovative and Secure (IRIS)

- International Consortium reactor design
- 100 to 355 MWe advanced light water reactor
- Integrated vessel for reactor and steam generator
- Westinghouse expressed interest in pre-application to focus on testing in a meeting with staff on May 7, 2001
- No expected pre-application date at this time

Future Licensing Approaches

Some Questions for Inviting Feedback

Scott Newberry, RES

Future Plant Licensing

- What is the most effective and efficient way to do a licensing review for future plants?
  - Case-by-case, using current 10 CFR as a starting point?
  - Develop new guidance for staff use to standardize case-by-case approach?
  - Develop approach with new non-technology specific principles/criteria?

Scope, Structure & Content

- If a new approach is developed, what should be its scope, structure and content?
  - Structure:
    - Principles
    - Requirements/criteria
    - Standards/processes
  - Scope:
    - Worker protection?
    - Public protection?
    - Environmental protection?
  - Content:
    - Principles (e.g., defense-in-depth, ALARA, etc.)
    - Requirements (e.g., GDCs, PRA, etc.)
    - Criteria (e.g., dose, risk, etc.)
    - Standards (e.g., IEEE, ASME, etc.)
    - Processes (e.g., training, performance monitoring, etc.)

Attributes of a New Approach

- If a new approach is developed, should it be characterized by:
  - Technology neutrality?
  - Plant-size neutrality
  - Retention of design-basis concept?
  - Cornerstones for defense-in-depth?
  - Performance-based / risk-informed
  - Treatment of uncertainties
  - Confidence levels?

Nuclear Fuel Cycle Issues

Presented by:

Office of Nuclear Material Safety and Safeguards

July 26, 2001

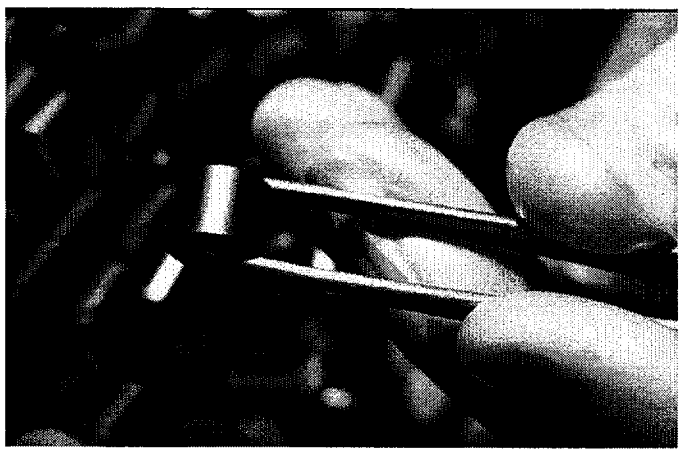
Nuclear Fuel Cycle Issues

- Fuel Manufacturing and Fabrication
- Fuel Quality Control and Qualification
- Transportation (Fresh and Spent Fuel)
- Safeguards (Material Control & Accounting, Physical Protection, International)
- Spent Nuclear Fuel (Storage, Handling)
- Decommissioning

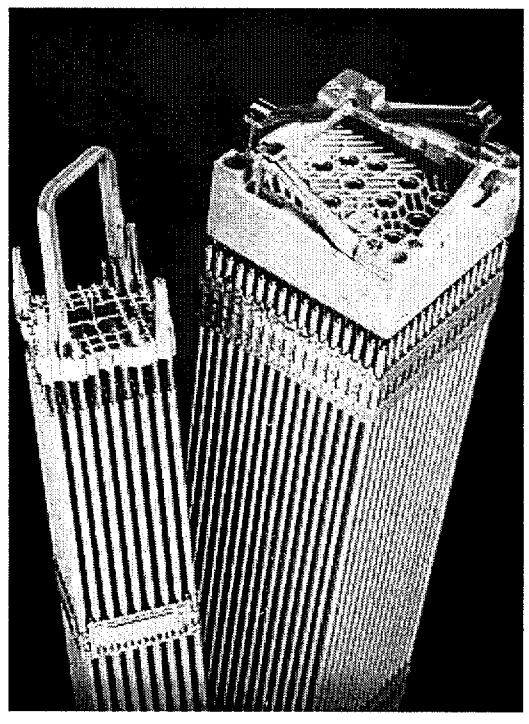
Fuel Fabrication

Some advanced reactors have ...

- LWR fuels



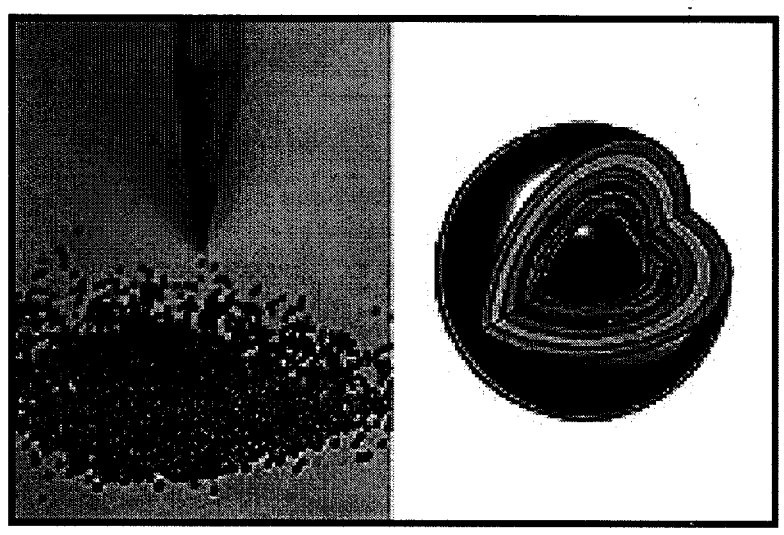
AP-1000, IRIS



Fuel Fabrication

Some advanced reactors have ...

- New Fuels

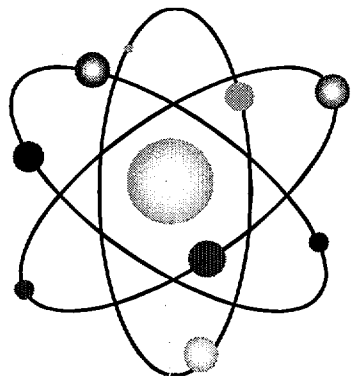


PBMR, GT-MHR

Fuel Fabrication

Advanced Reactor Issues

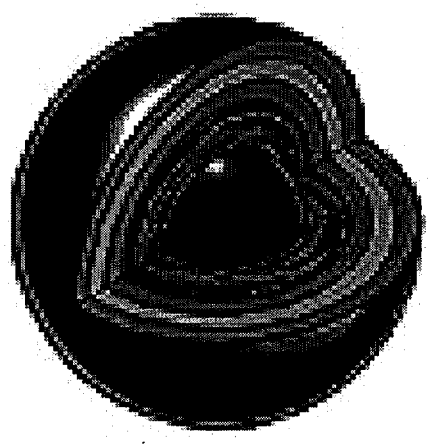
- LWR Fuel:
  - Burn up
  - Enrichment (>5%)
  - MOX ?



Fuel Fabrication

Advanced Reactor Issues

- New Fuel:



Manufactured in U.S.?

Coatings/ Carbides

Homogeneity, Uniformity

Poisons

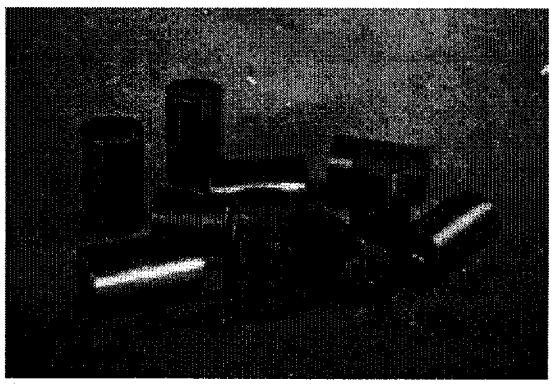
Enrichment

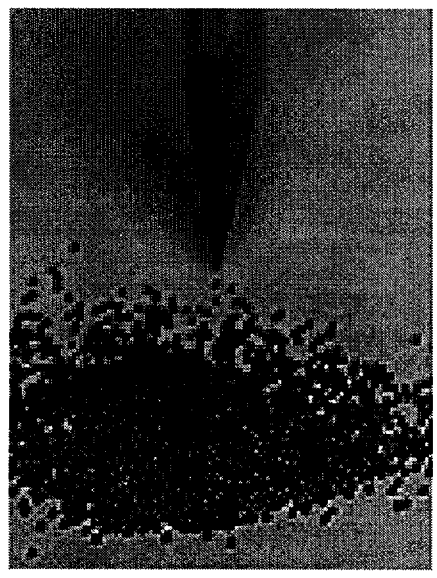
Natural/ Depleted Uranium

Fuel Quality Control and Qualification

Advanced Reactor Generic Issues

- Longer Fuel cycle
  - Maintain integrity
  - Contain fission products

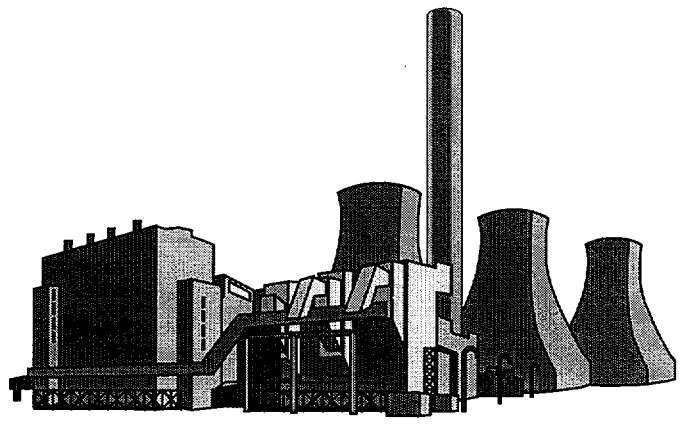




Fuel Quality Control and Qualification

Numbers

- LWR Fuel



* 1,000 MWe nominal
* 193 assemblies
* 51,000 fuel rods
* 18,000,000 fuel pellets

* Reject/rework rates
  0.1-0.3% on rods
  1-3% on pellets

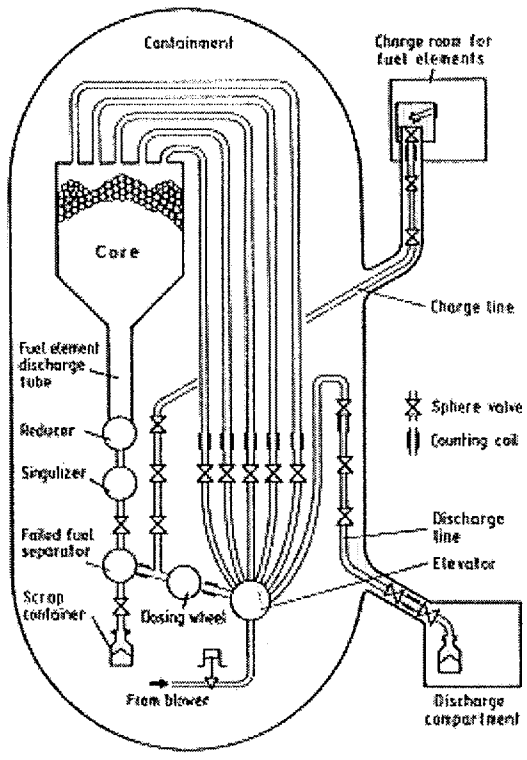
Fuel Quality Control and Qualification

Numbers

- New fuel

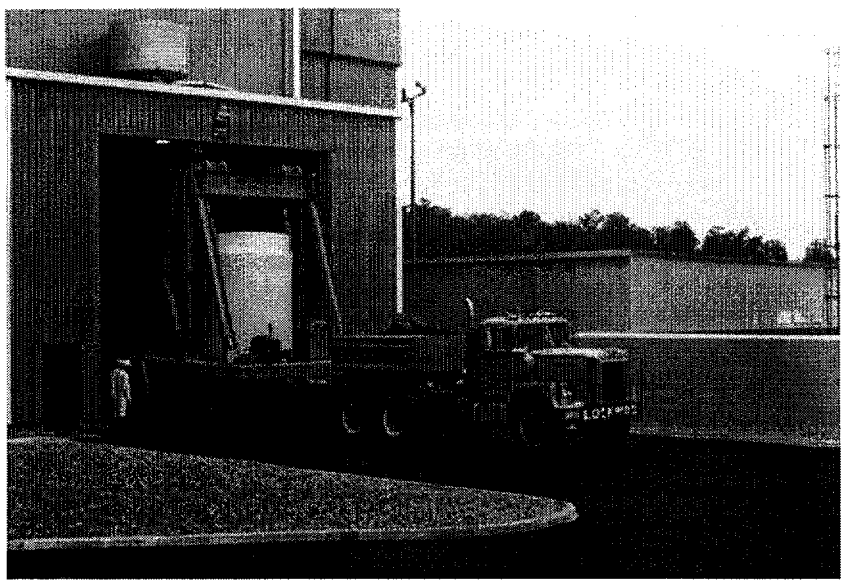
* 110 MWe example
* 330,000 fuel + 110,000 pure graphite pebbles in core
* billions of fuel particles

* Rejection rates ??



Transportation

- Origin of Fuel: US, foreign



- Disposition of Spent Fuel
- Cask for Spent Fuel Transport
- Package for Fresh Fuel Transport

Safeguards

- Physical Protection
- Material Control and Accounting
- International Safeguards

Regulations

Part 40 Licensing of Source Material

Parts 60, 61, 62 & 63 Waste Disposal

Parts 30-33 Licensing of Byproduct Material

Part 70 Licensing of Special Nuclear Material

Part 71 Transportation

Part 72 Independent Spent Fuel Storage

Parts 73, 74 & 75 Physical protection, MC&A, International Safeguards

Part 76 Gaseous Diffusion Plants

Part 110 Import /Export

Protecting Public Health and Safety at the Proposed Geologic Repository at Yucca Mountain, Nevada

Bret W. Leslie, Ph.D.

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U.S. Nuclear Regulatory Commission
(301) 415-6652; bwl@nrc.gov

Protecting Public Health and Safety: NRC's Role at Yucca Mountain

- Develop regulations that are protective
- Provide preliminary comments on the Department of Energy (DOE) site recommendation
- If site is recommended, assure DOE compliance with regulations
- Review license application
- Inspect -- onsite resident inspectors

Opportunities for Public Involvement

- Ongoing dialogue
- Comment opportunities
- Public licensing process
- Monitor or request action

Status of NRC Yucca Mountain Program

- Pre-licensing interactions with DOE
- Revising proposed regulations
- Developing preliminary sufficiency comments