



U.S. NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

Consideration of Economic Consequences within the NRC's Regulatory Framework

Public Meeting
August 29, 2012



LOGISTICS

- Category 3 Public Meeting
- Emergency Evacuation Plan
- Feedback Forms



GROUND RULES

- Speak one at a time; identify yourself.
- Be respectful of speakers/participants.
- Limit interruptions (e.g., cell phones, side conversations).
- You may submit questions via “chat” function in GoToMeeting.
- Question/answer session will follow the presentation.



PURPOSE AND AGENDA

Time	Session Topic	Lead
2:00 p.m.	Opening Remarks	NRC
2:10 p.m.	Overview of Consideration of Economic Consequences in NRC Regulatory Analysis, Backfitting, and Environmental Analysis and SECY Paper Options	NRC
2:50 p.m.	General Discussion	All
3:30 p.m.	Closing Remarks	NRC



MEETING CONTEXT

- NRC met with public on May 24, 2012.
 - Meeting summary is available in the Agencywide Documents Access and Management System under Accession No.ML12191A144.
- Staff developed SECY-12-0110, “Consideration of Economic Consequences within the U.S. Nuclear Regulatory Commission’s Regulatory Framework.”
- Commission briefing on this topic is scheduled for September 11, 2012.



TASKING

- Staff received tasking in early April.
- Provide a vote Commission paper, with options, to address the following policy question:
 - *To what extent, if any, should NRC's regulatory framework modify consideration of economic consequences of the unintended release of licensed nuclear materials to the environment?*
 - SECY has been submitted to the Commission.



BACKGROUND

- NRC requirements relating to adequate protection concern radiological health and safety and common defense and security.
 - NRC must find reasonable assurance of adequate protection before it can issue a license or amend an existing license.
 - Adequate protection is a safety standard.

- Distinct from adequate protection, the NRC has authority under the Atomic Energy Act to consider property damage.
 - Offsite Property Damage (OPD) can include:
 - Costs of land and property,
 - Costs of relocation and compensation, and
 - Impacts to businesses (e.g., agriculture, manufacturing, and tourism).



OPD CONSIDERATIONS IN NRC ANALYSES

- Regulatory Analysis: Structured analysis of proposed requirements, estimating benefits and costs to the extent possible.
- Backfit Analysis: When determining if the proposed backfit is cost-justified.
- National Environmental Policy Act Environmental Analyses: Depending on the nature of the proposed regulatory or licensing action, environmental analyses under National Environmental Policy Act (NEPA) of potential damage to offsite property or other resources may be conducted.



REGULATORY ANALYSIS

- What is purpose of regulatory analysis (RA)?
 - To identify and evaluate the likely consequences of rules.
 - Decision tool for policymakers.
 - Rationale for action.
 - More transparent of agency decision-making.
- When is RA used?
 - Per Office of Management and Budget Circular A-4, a regulatory analysis is a tool regulatory agencies use to anticipate and evaluate the likely consequences of rules.



BACKFITTING AND ISSUE FINALITY

- Purpose of NRC backfitting and issue finality provisions.
 - Regulatory stability.
 - Reasoned and informed agency decision-making.
 - Transparency of agency decision-making.
- When must NRC address backfitting and issue finality?
 - If proposed NRC action falls within intended scope of backfitting and issue finality.
 - If proposed NRC action constitutes a backfit or is subject to issue finality.
 - If no exceptions to preparation of a backfit analysis apply.

Regulatory Requirements:

10 CFR 50.109	Operating Reactors
10 CFR 52	New Reactors
10 CFR 70.76	Subpart H
10 CFR 72.62	Independent Spent Fuel Storage Installation
10 CFR 76.76	Gaseous Diffusion Plants



BACKFIT ANALYSIS: FOUR STEP PROCESS

- First Step: Is the NRC action subject to the backfit rule?
- Second Step: Is there a backfit?
- Third Step: Do one of the exceptions in 50.109(a)(4) apply?
 - Compliance,
 - Necessary for adequate protection, or
 - Defining or redefining what is needed for adequate protection.



BACKFIT ANALYSIS (cont.)

- Fourth Step, Part 1: Does the backfit provide substantial increase in protection to public health and safety or common defense and security?
- Fourth Step, Part 2: Is the cost of the backfit justified in light of the increase in protection?
 - The RA methodology and specific values and parameters are used to perform a backfit cost-benefit determination.



NEPA

- Requires a Federal agency to analyze the potential environmental impacts of its proposed action and any reasonable alternatives to proposed action.
- Procedural statute—does not mandate particular outcome.
- Under NEPA, agency must take a “hard look” at the potential environmental impacts.
- NRC performs an environmental impact statement for new reactors and operating reactor license renewals.
- Severe Accident Mitigation Alternatives (SAMA) and Severe Accident Mitigation Design Alternatives (SAMDA).

Regulatory Requirement:

NEPA implementing regulations are in 10 CFR Part 51.



SAMAs & SAMDAs

- What is the purpose?
 - To ensure that alternative nuclear power plant design features and operational procedures with the potential for improving severe accident performance are identified and evaluated from an environmental standpoint.
 - SAMA and SAMDA do not apply to other facilities or materials licenses.
- When are they needed?
 - All applications for early site permits, construction permits, and combined licenses under 10 CFR Part 52 (SAMDAs and SAMAs).
 - Certain applications for limited work authorizations under 10 CFR Part 50 (SAMDAs only).
 - All applications for license renewal if a SAMDA analysis was not prepared earlier for the plant (SAMDAs only).
 - Design certification rules (SAMDAs only).



GUIDANCE DOCUMENTS

- Regulatory Analysis Guidelines, NUREG/BR-0058, Rev. 4 (2004).
- Regulatory Analysis Technical Evaluation Handbook, NUREG/BR-0184 (1997).
- Reassessment of NRC's Dollar per Person-Rem Conversion Factor Policy, NUREG-1530 (1995).
- Backfitting Guidelines, NUREG-1409 (1990).



NUREG/BR-0184

- Some of the attributes considered in assessing the cost and benefits to public health or averted property damage resulting from a proposed regulatory action include:
 - Public Health (accident and routine)
 - Occupational Health (accident and routine)
 - Offsite Property
 - Onsite Property
 - Industry Implementation and Operation



SECY-12-0110 OPTIONS

- Option 1: Status Quo
- Option 2: Enhanced Consistency of Regulatory Analysis Guidance
- Option 3: Exploring the Merits of Potential Changes to the Regulatory Framework



OPTION 1

- **Pros**
 - Maintains regulatory stability.
 - Requires minimal additional resources.

- **Cons**
 - May not accomplish consistency across programs.
 - May not be responsive to possible stakeholder concerns.
 - May result in inefficiency.



OPTION 2

- **Pros**
 - Systematic approach to updating guidance and addressing agency-level needs.
 - More comprehensive guidance for methods and parameters.
 - More harmonized regulatory analysis guidance.

- **Cons**
 - Would require more resources than Option 1.
 - May not be responsive to possible stakeholder concerns.



OPTION 3

- **Pros**
 - Provide a Commission statement on the importance of land contamination.
 - Allows for stakeholder input to proposed revisions.

- **Cons**
 - Could increase regulatory uncertainty.
 - Increased complexity.
 - Would require substantial staff resources.



RECOMMENDATION AND NEXT STEPS

- Staff recommends Option 2.
 - Would enhance the currency and consistency of the existing framework.
 - Would be done more systematically.
 - Would provide more comprehensive guidance.
- Commission briefing scheduled for September 11, 2012.



FOCUS QUESTIONS

- Questions on the content of the SECY paper?
- Questions on the SECY paper options?
- Questions or comments on the staff's recommendation?



SAFETY GOAL POLICY STATEMENT

- In response to recommendations following the accident at Three Mile Island, the NRC developed safety goals.
 - Debate regarding how OPD should be addressed.
- Final policy statement in 1986—two qualitative health safety goals supported by quantitative health objectives.
 - OPD and land contamination not directly addressed.
- The staff considered modifying the safety goal policy to include land contamination (1997–2001).
 - Commission disapproved any revision to the policy statement.