



U.S. NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

Consideration of Offsite Property Damage within the NRC's Regulatory Framework

Public Meeting

May 24, 2012



Meeting Logistics

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



Meeting Purpose

- To inform the public of the staff effort to develop a SECY Paper that will provide the Commission background information on current approaches for considering offsite property damage (e.g., loss of property due to radiological contamination) in regulatory analyses, backfitting, and environmental analyses.



Meeting Ground Rules

- Speak one at a time; identify yourself
- Be respectful of speakers/participants
- Limit interruptions (cell phones, side conversations)
- You may submit questions/comments via “chat” function in GoToMeeting
- Comments will be taken from in-person attendees, then bridge attendees, then “chat” submissions



Agenda

Time	Session Topic	Lead
1:30 p.m.	Opening Remarks	NRC
1:40 p.m.	Overview of Consideration of Offsite Property Damage in NRC Regulatory Analysis, Backfitting, and Environmental Analysis	NRC
2:40 p.m.	General Discussion	All
3:30 p.m.	Closing Remarks	NRC



NRC considers OPD in the following analyses:

- Regulatory Analysis: Structured analysis of proposed requirements, estimating benefits and costs to the extent possible
- Backfit Analysis: Analysis to determine when to apply changes to currently licensed facilities retroactively
- NEPA Environmental Analyses: Depending on the nature of the proposed regulatory or licensing action, environmental analyses under NEPA of potential damage to offsite property or other resources may be conducted



Regulatory Analysis (RA)

- **What is purpose**

- Decision tool for policymakers
- Rationale for action
- Transparency of agency decision-making

- **When is used**

- Per OMB Circular A-4, a regulatory analysis is a tool regulatory agencies use to anticipate and evaluate the likely consequences of rules

- **What is considered and how**

- Guidance:
 - Regulatory Analysis Guidelines, NUREG/BR-0058, Rev. 4 (2004)
 - Regulatory Analysis Technical Evaluation Handbook, NUREG/BR-0184 (1997)

Regulatory requirement:

-Self-imposed requirement, complying with Executive Orders beginning with President Ford; reaffirmed by President Obama in 2011
-Comply with OMB guidance; Circular A-4
**RA requirements can be modified or eliminated at the discretion of the office director or above.



Backfit Analysis (BA)

- **What is BA purpose:**

- Regulatory stability
- Reasoned and informed agency decision-making
- Transparency of agency decision-making

Regulatory requirement:
10 CFR 50.109- power reactors
10 CFR 70.76- Subpart H
10 CFR 72.62- ISFSI
10 CFR 76.76- GDP

- **When is BA needed:**

- If proposed NRC action is a “backfit” (e.g., change in agency position)
- If no exceptions to preparation of a backfit analysis apply

- **What is considered and how**

- Guidance:
 - Regulatory Analysis Guidelines, NUREG/BR-0058, Rev. 4 (2004)
 - Regulatory Analysis Technical Evaluation Handbook, NUREG/BR-0184 (1997)
 - Backfitting Guidelines, NUREG-1409 (1990)
- Four step process



Backfit Analysis: 4 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
 - Defining or redefining what is needed for adequate protection



Backfit Analysis: 4 step process 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?
 - Traditional cost/benefit analysis *methodology* in Regulatory Analysis is used to satisfy this requirement



NEPA

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



NEPA- SAMA and SAMDA

- **What is purpose**

- To ensure that plant design and operational changes with the potential for improving severe accident performance are identified and evaluated

- **When is needed**

- All applications for license renewal, if SAMA were not previously considered
- All applications for new reactor licenses (SAMA and SAMDA)

- **What is considered and how**

- Identify potential SAMA/SAMDA and provide an estimate of the cost of implementing them
- Guidance:
 - NUREG/BR-0058 and NUREG/BR-0184

**Regulatory
requirement:**

NEPA implementing regulations are in 10 CFR part 51.



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)



Guidance: NUREG/BR-0184

• Example of attributes that may be included in cost-benefit analysis include:

- Public health (accident and routine)
- Occupational health (accident and routine)
- Offsite Property
- Onsite Property
- Industry Implementation & Operation



Next Steps

- SECY paper completion- mid/late summer
- Potential public meeting- after paper completion
- Commission Briefing- September 11, 2012



Focus Questions

- What can the NRC do to improve communication of how it considers offsite property damage?
- Are there any consensus standards or practices that NRC should be considering when addressing offsite property damage? Lessons learned/best practices?
- What should the main drivers be to update regulatory analysis guidance and data?
- What other factors should the NRC consider when evaluating OPD in its regulatory processes?