



U.S.NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

Consideration of Economic Consequences within the NRC's Regulatory Framework

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Presentation to OECD/NEA Workshop: Costs of Nuclear Accidents

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Purpose and Outline

- To provide a presentation on NRC's ongoing initiative concerning consideration of economic consequences of an unintended release of nuclear materials to the environment.
- Outline
 - NRC authority to consider property damage
 - Considerations in NRC analyses
 - Cost-Benefit Guidance
 - Commission Paper on Economic Consequences
 - Stakeholder Interactions
 - Next Steps

Legal Authority

- 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 “minimize danger” to property.
 - Offsite Property Damage (OPD) can include:
 - Costs of destroyed or damaged property,
 - Costs of relocation from real property, and
 - Loss of business revenues

Considerations in NRC Analyses

- Regulatory Analysis: Structured analysis of proposed requirements, estimating benefits and costs.
- Backfit Analysis: When determining if the proposed regulatory action is a substantial safety enhancement and is cost-justified.
- National Environmental Policy Act (NEPA) Analyses: Depending on the nature of the proposed regulatory or licensing action, the NEPA analysis may include consideration of potential damage to offsite property.

Cost-Benefit Guidance

- Regulatory Analysis Guidelines, NUREG/BR-0058, Rev. 4 (2004). (Agencywide Documents Access and Management System (ADAMS) number ML042820192)
- Regulatory Analysis Technical Evaluation Handbook, NUREG/BR-0184 (1997). (ML050190193)
- Reassessment of NRC's Dollar per Person-Rem Conversion Factor Policy, NUREG-1530 (1995). (ML063470485)
- Backfitting Guidelines, NUREG-1409 (1990). (ML032230247)
- MELCOR Accident Consequence Code System, Version 2 (MACCS2)

Commission Paper on Economic Consequences

- SECY-12-0110, “Consideration of Economic Consequences within the U.S. Nuclear Regulatory Commission’s Regulatory Framework,” on August 14, 2012.¹
 - Addressed the 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?*
 - Described the current offsite property damage considerations in NRC analyses
 - Concluded that the current regulatory framework is sound and affords sufficient flexibility
 - Recommended enhancing cost-benefit guidance
- The Commission found that “Economic Consequences should not be treated as equivalent in regulatory character to matters of adequate protection of public health and safety.”²

¹ADAMS number ML12173A479.

²SRM-12-0110: <http://www.nrc.gov/reading-rm/doc-collections/commission/srm/2012/2012-0110srm.pdf>

Stakeholder Interactions

- Public Meetings
- Advisory Committee on Reactor Safeguards
- Public Commission Meeting on Economic Consequences*
- International Outreach
 - NRC requested CNRA/CSNI members complete questionnaire on Economic Consequences
- United States Federal agency outreach
 - Focus on Federal agencies whose mission is similar to the NRC's, e.g. the Environmental Protection Agency
 - Workshop on Value of a Statistical Life (relates to the dollar per person-rem conversion factor)

*SRM-M120911:

<http://pbadupws.nrc.gov/docs/ML1227/ML12278A395.pdf>

Next Steps

- NRC (Glenn Tracy) will present at CNRA meeting June 3-4, 2013.
- Comprehensive paper on plan for updating regulatory analysis guidance (Winter 2013)
- Explore differences between how costs and benefits are addressed for different types of regulated activities (Winter 2014)
- Two examples of ongoing guidance update initiatives:
 - Update to Dollar per Person-Rem Conversion Factor Policy
 - Update to Replacement Power Costs



NRC CONTACT

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