Consideration of Economic Consequences within the NRC’s Regulatory Framework

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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)
• 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.

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:
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
If you have any questions, please contact Alysia Bone at Alysia.Bone@nrc.gov.