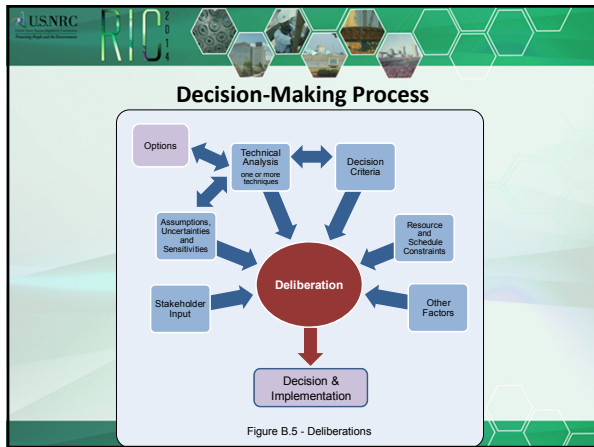


USNRC RIC

RIC 2014

Use of Research Studies For NRC Regulatory Actions


Kevin Witt
Office of Nuclear Reactor Regulation
March 11, 2014



USNRC RIC


Regulatory Process for New Requirements

- Backfitting Rule for Operating Reactors – 10 CFR 50.109(a)(3):
 - Substantial increase in the overall protection of the public health and safety or the common defense and security; and
 - Direct and indirect costs of implementation for that facility are justified in view of this increased protection
- Exception for adequate protection – 10 CFR 50.109(a)(4)
- Exception for compliance with NRC requirements in effect at time of original NRC approval (e.g., license issuance)
- Regulatory Analysis Guidelines – NUREG/BR-0058
 - Safety goal screening evaluation
 - Cost/benefit analysis




Regulatory Analysis Process

- Safety Goal Screening Evaluation
 - Based on the Commission’s Safety Goal Policy Statement
 - Commission’s Quantitative Health Objectives (QHOs) can be used to evaluate achievement of the safety goals
- Cost/Benefit Analysis
 - Contains estimates of benefits and costs to determine whether the proposed regulatory action is cost beneficial



Attributes Considered in a Cost-Benefit Analysis

Costs	Benefits
Public Health (Routine)	Public Health (Accident)
Occupational Health (Routine)	Occupational Health (Accident)
Industry Operation	Offsite Property
Industry Implementation	Onsite Property
NRC Implementation	



Expedited Transfer of Spent Fuel to Dry Cask Storage

Generic Regulatory Analysis


- Regulatory Assessment
- Expanded Plants (Generic by Groups)
- Expanded Scenarios

Regulatory Analysis for Reference Plant (Appendix D)

- Regulatory Assessment
- Specific Plant
- Expanded Scenarios


Spent Fuel Pool Study

- Consequence Study
- Specific Plant
- Specific Scenario



Expedited Transfer Regulatory Analysis Results

- Limited safety benefit based on comparison with Commission's Quantitative Health Objectives
- Base case costs outweigh benefits
 - Different evaluation criteria might result in benefits outweighing costs
- Staff recommended that the Commission not pursue additional studies on this issue



Conclusion

- Decision-making process is governed by statutory requirements, regulations and internal guidance
- There are numerous factors to consider when determining whether to pursue new regulatory requirements
- Research studies provide information needed to make regulatory decisions
- The Spent Fuel Pool Study provided input to the evaluation of whether to require expedited transfer of spent fuel to dry cask storage
