

**PREDECISIONAL
BEING PROVIDED TO SUPPORT THE 3/9/2017 ACRS REGULATORY
POLICIES AND PRACTICES FULL COMMITTEE MEETING
AND NOT TO SOLICIT EXTERNAL STAKEHOLDER FEEDBACK**

**APPENDIX I: NATIONAL ENVIRONMENTAL POLICY ACT COST-BENEFIT
ANALYSIS GUIDANCE**

Draft Outline

1. Purpose
2. Cost-Benefit Analysis for National Environmental Policy Act (NEPA) Reviews
 - a. Regulatory Requirements
 - b. NRC Guidance
 - i. NUREG-1555, "Standard Review Plans for Environmental Reviews for Nuclear Power Plants"
 1. Assessment of Need for Power
 2. Benefits
 3. Costs
 - ii. Regulatory Guide 4.2, "Preparation of Environmental Reports for Nuclear Power Stations"
 1. Cost-Benefit Analysis
 2. Economic and Social Effects of Station Construction and Operation
 - iii. NUREG-1748, "Environmental Review Guidance for Licensing Actions Associated with NMSS Programs"
 1. Cost-Benefit Analysis
3. Environmental Justice
 - a. Commission's Policy Statement
 - b. NRC Guidance
 - i. LIC-203, "Procedural Guidance for Preparing Environmental Assessments and Considering Environmental Issues"
 - ii. NUREG-1748
4. Public Health
 - a. Severe Accident Mitigation Alternatives (SAMA)
 - i. NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants"
 - ii. NEI 05-01A, "Severe Accident Mitigation Alternatives (SAMA) Analysis"
 - b. Severe Accident Mitigation Design Alternatives (SAMDA)
 - i. Design Certification – Generic
 - ii. Combined License – Site-Specific
 1. ESRP 7.2, "Severe Accident Analysis"
 - a. Level 1 and Level 2 PRA Information
 - i. Quantification of MAACS Input Parameters
 2. NUREG/BR-0058 Appendix H Severe Accident Analysis
 - a. Averted Cost (averted public exposure costs + averted offsite property damage costs + averted occupational exposure costs + averted onsite costs)

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- 3. ESRP 7.3, "Severe Accident Mitigation Alternatives Analysis"
 - a. Selection of Design Alternatives
 - b. Cost Screening Based on Averted Costs vs. Costs of the Alternatives
 - i. 7% and 3% Discount Rates
 - ii. Sensitivity and Uncertainty Analysis
 - c. Material Licenses
- 5. References