



Graded Approach to Power Uprate Reviews

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Changes Since Last Power Uprate Review

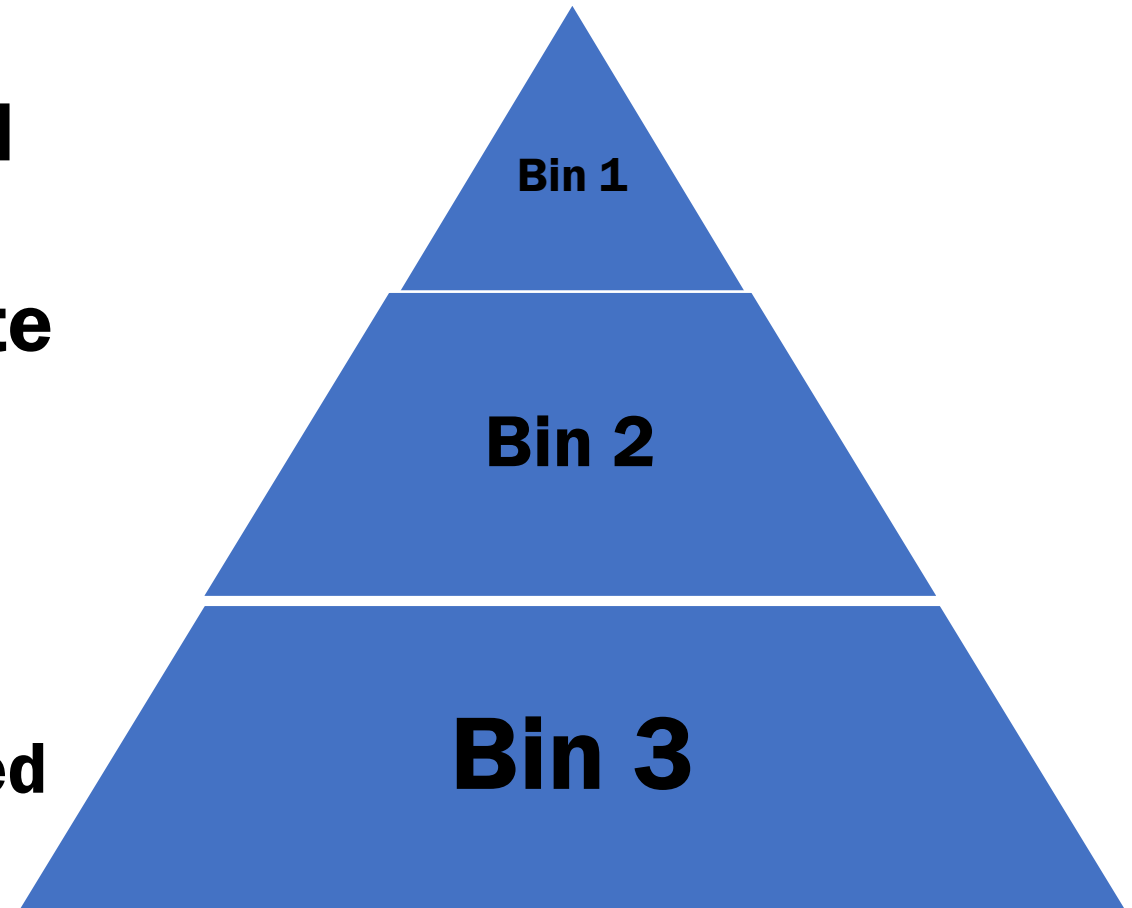
Be riskSMART





Graded Approach to Reviews

- **Focus on the most safety- and risk-significant portions**
- **Evaluate how the power uprate impacts functions and requirements of structures, systems, and components**
- **Three categories (or bins)**
 - **Minimal, moderate, or detailed review**

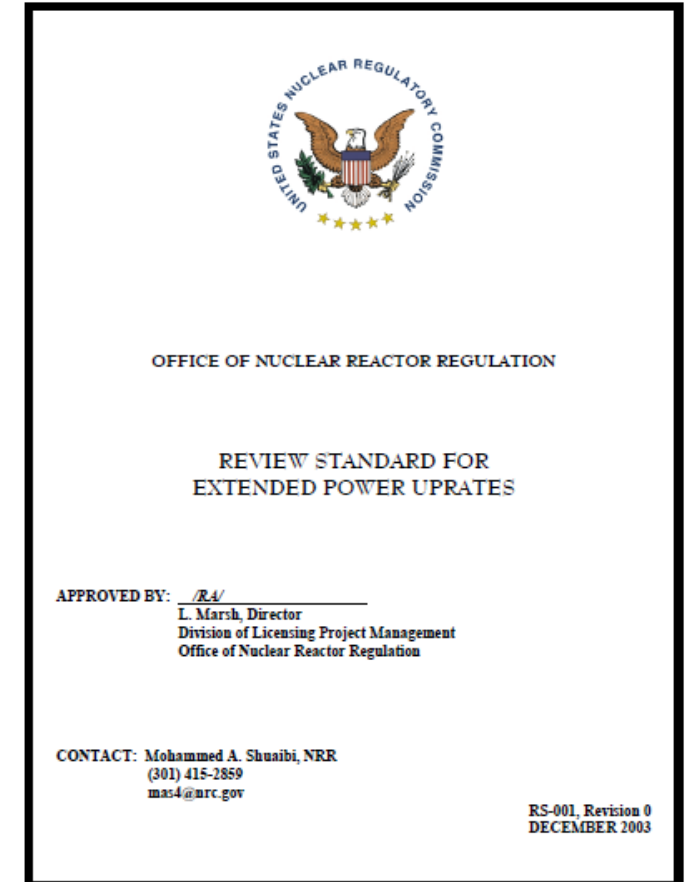




“Binning” Considerations

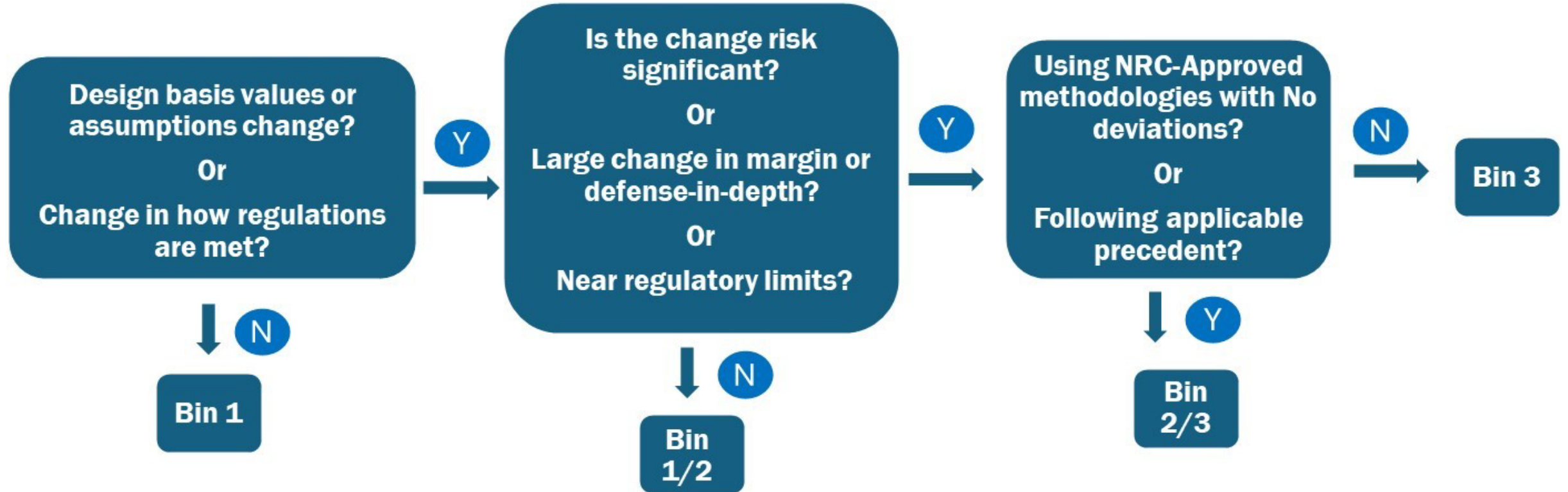
Areas of review (or systems) based on RS-001

- **Factors**
 - Changes to system design, analyses, or operation
 - Risk significance
 - Change in margin
 - Change in defense in depth (DID)
 - Near regulatory limits
 - Use of NRC-approved methodologies
- **Risk considerations**
 - ~30% RS-001 sections are risk-amenable





Binning Roadmap





Bin 1

Bin 1—Minimal staff review effort expected

- Uprated conditions will likely not affect system design or operation
- ...allowing the NRC to potentially streamline its safety evaluation: for example, having a single section listing the review areas in one table

Examples: Various non-safety-related plant heating, ventilation, and air conditioning systems



Bin 2

Bin 2—Moderate staff review expected

- **Systems affected by the uprate need to be reviewed against NRC regulations, but changes are unlikely to have a significant impact on nuclear safety**
- **If the changes are bounded by the current analyses, the staff will review to verify**
- **If the changes are not bounded by current analyses, or if there are major system modifications or upgrades, the staff will review the system, analyses, or both for compliance with the applicable NRC regulations**

Examples: Some safety-significant support systems, certain reactor and containment review areas, certain accident analyses



Bin 3

Bin 3—Detailed staff review expected

- **Upated conditions:**
 - **Result in significant changes to the systems' design, analyses, or operation**
 - **Are risk significant**
 - **Result in significant change in margin**
 - **Result in significant change in DID**
 - **Result in values near regulatory limits**
 - **Deviat from NRC-approved methodologies**

Examples: Some safety-significant support systems, certain reactor and containment review areas, certain accident analyses



We Make SAFE Use of Nuclear Technology POSSIBLE

- **As always, the staff review must find—**
 - **Reasonable assurance that public health and safety will not be endangered**
 - **Compliance with NRC regulations**
 - **The change is not inimical to the common defense and security or to public health and safety**
- **Documentation**
- **Future public engagements**