



Southern
Company

Licensing Modernization Project (LMP)

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Licensing Modernization Project

Why: Reduce regulatory uncertainty to enable accelerated commercialization of advanced non-LWR reactors

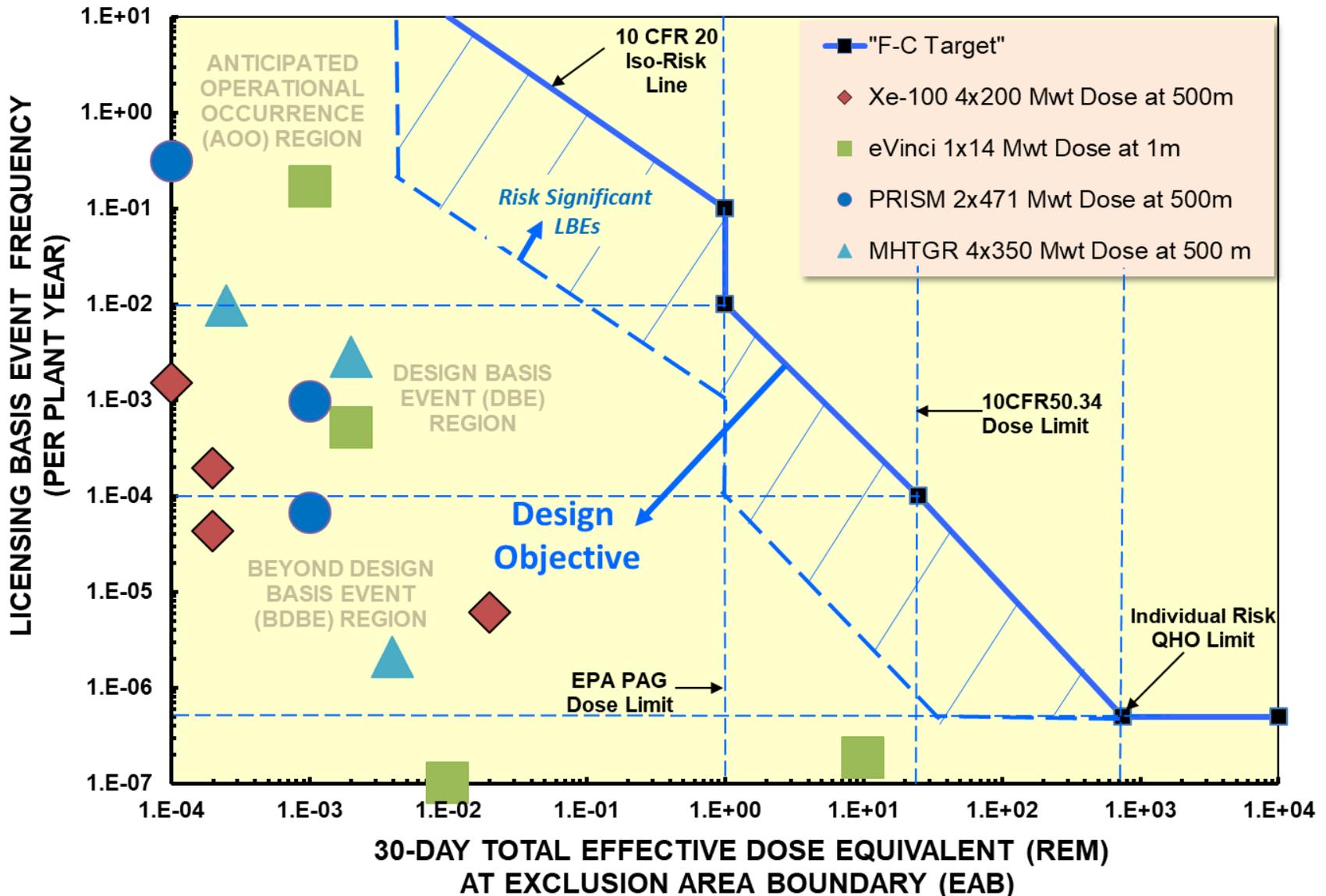
- Consistent with the Commission's long-standing effort to transition to risk-informed, performance-based regulations
- Key to achieving modern risk-informed regulation as envisioned in the agency's Transformation Initiative.

How: Develop transparent, systematic, risk-informed, performance-based, and predictable methodology

What: NEI 18-04 and four supporting reports are intended to:

- Select and evaluate Licensing Basis Events (LBEs)
- Classify Structures, Systems and Components (SSCs) based on their holistic and realistic contribution to risk
- Determine Defense-in-Depth (DiD) adequacy

LBE Evaluation Chart



LMP Tabletop Insights

Results of the Tabletop exercises confirmed that:

- The LMP process can be effectively executed for a spectrum of different non-LWR concepts
- Design decisions can be optimized through an integrated and realistic analysis of the plant's response
- Information obtained through the LMP-based design evaluation can be used for building a strong operational risk management program

Summary

- The LMP methodology, presented in NEI 18-04, is developed based on:
 - over 20 years of industry interactions with the NRC staff on risk-informed regulatory approaches, including many public reviews and discussions
 - lessons learned from a number of industry tabletop exercises, covering different technologies and designs
- Positive support of Draft Guide-1353 which endorses NEI 18-04:
 - ACRS letter of support, following a number of meetings with the industry and NRC staff.
- Next steps:
 - **Critical**- Approval of SECY-19-0117
 - **Valuable**- NRC endorsement of ASME non-LWR PRA standard.

SECY-19-0117 key step in support of Commission's long-standing effort to transition to risk-informed, performance-based regulations and regulatory modernization

Acronyms

- LMP– Licensing Modernization Project
- NEI- Nuclear Energy Institute
- LBE- Licensing Basis Events
- DBE- Design Basis Events
- DBA- Design Basis Accidents
- BDBE- Beyond Design Basis Events
- DiD– Defense-in-Depth
- QHO- Quantitative Health Objective
- EPA– Environmental Protection Agency
- PAG– Protection Active Guide
- EAB- Exclusion Area Boundary
- Mwt- Megawatt Thermal
- F-C- Frequency-Consequence