



NRC Power Upstate Review Preparation

PUBLIC MEETING – JUNE 26, 2024

NRC Power Uprate Forecast

- ▶ Industry Survey results on power uprates found the following:
 - ▶ Greater than 50% of sites surveyed have a level of interest/planning for one or more power uprates with a combined capacity increase of 2 Gwe.
 - ▶ Inflation Reduction Act production tax credits, along with the Civil Nuclear Credit program and Bipartisan Infrastructure Bill of 2021, have generated industry interest in power uprates.

NRC Power Uprate Experience

- ▶ The NRC has approved approximately 170 power uprate amendments since 2000
- ▶ We established processes to support those reviews
- ▶ Data indicates an increase in the resources and time required to conduct those reviews.
- ▶ Given the forecast of multiple power uprate applications, we are in the process of identifying opportunities to improve and optimize our reviews.

Dedicated Power Uprate Project Team



Led by NRR Division
of Operating Reactor
Licensing leadership



Includes project
managers who lead
the completion of our
deliverables



Project Team meets
every two weeks and
briefs the NRR
Executive Team
every month



Utilizing dashboards
and online tools to
track actions and
milestones

Power Uprate Deliverables



Core Team Charter
(ML24156A109)



Planned Activities/Timeline
([ML24110A141](#))



Communication Plan –Issued
for NRC internal use



Regulatory Issues Summary –
Estimated Issuance in September



Licensing Process
Improvements

Power Uprate Graded Approach/Risk Assessment Working Group

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- ▶ The Power Uprate Graded Approach/Risk Assessment Working Group consists of NRC staff including project managers and experienced staff from the technical areas affected by power uprate reviews. The working group meets bi-weekly to discuss possible review enhancements
- ▶ The working group has used data to determine the technical areas with the largest equities in previous EPU reviews and are reviewing NRC guidance and processes looking for ways to leverage other reviews, risk insights, project management tools, etc.
- ▶ The issuance of WG recommendations to improve power uprate review process is scheduled for September.

Preliminary Graded Approach/Risk Assessment Recommendations

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Continued Engagement with Stakeholders

- Focus on safety significant systems/issues
- Areas of small/large analytical margin
- Areas where previous approvals can be leveraged
- New or novel areas
- Potential linked amendments and hardships

Adopt a Graded Approach

- Evaluate PUR impact on function or requirements and bin into:
 - System that require little or no review
 - Systems modified to support uprated power but unlikely to impact nuclear safety.
 - Systems directly impacted by uprated power and require detailed review

Continued Process Improvements in Targeted Areas

- Environmental assessments
- Project management tools
- Leveraging audits and inspections
- Updating PUR guidance

Planned Activities/Timeline

- Targeting public engagement in August and following Regulatory Issues Summary responses

August

- Conduct an interactive workshop with stakeholders seeking potential power uprate improvement areas

September

- Issue staff recommendations to improve power uprate review process

NOTE:

- Additional public engagements will be planned as necessary.

Questions and Discussion

