

Risk-Informing License Renewal: Exploring the Potential

Opportunities during Licensing

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Can licensees use formal risk insights, such as probabilistic risk assessment (PRA) or 10 CFR 50.69, as part of the license renewal application?

Regulatory Basis

“While the Commission believes that the methodology for conducting an integrated plant assessment needed to ensure that aging of SSCs [structures, systems, and components] is appropriately managed **should emphasize deterministic approaches**, the Commission also acknowledges that **PRA** techniques **could be used as a supplemental tool** in the renewal applicant's integrated plant assessment. [However,] **probabilistic assessment alone is not an acceptable basis** for the **exclusion of SSCs** to be evaluated....”

Statements of Consideration for
1991 License Renewal Rule (56 FR 64943)

Opportunities for Use in Licensing?

- ▶ Assessment of aging management review line items
- ▶ Enhancements or exceptions within aging management programs
- ▶ Scoping and screening (exemption required)

Aging Management Review Line Items

- ▶ A line could also indicate the 10 CFR 50.69 risk categorization level
 - ▶ Not every item would fit neatly into a categorization
 - ▶ Information for each SSC may not be readily available
- ▶ NRC review effort could then consider risk categorization level
- ▶ Open Question—Exactly how applicable is PRA to the period of extended operation?

Aging Management Programs


- ▶ Use risk information (risk categorization or PRA results) to support enhancements or exceptions
- ▶ The risk information could allow modifications to the way that an aging effect is managed (e.g., more or fewer inspections)

Scoping and Screening

- ▶ Deterministic process is part of the rule
- ▶ Potential for risk information to be used to seek an exemption
 - ▶ to exclude a normally included SSC on an individual level
 - ▶ to have an alternative method of scoping and screening entirely
- ▶ Exemption would have the most impact on the application but may be hard to justify
- ▶ Exemption would take significantly more effort than risk-informing how the aging effects are managed

At the Licensing Stage

- ▶ Aging management review line items
- ▶ Enhancements or exceptions within aging management programs
- ▶ Scoping and screening

A woman with dark hair, wearing a black blazer over a white shirt, is standing on the left side of the image. She has her hand on her chin and is looking upwards with a thoughtful expression.

What if the
renewed license
has already been
issued?

A woman with brown hair, wearing a blue t-shirt, is standing on the right side of the image. She is smiling and giving a thumbs up with both hands.

10 CFR 50.59 governs
the approach to
changing aging
management program
commitments.



The NRC's Next Steps

Industry's Next Steps

The NRC has not formally reviewed or approved the processes described in the industry presentations today.

So, let's hear about their plans...