



Division of Radiation Control

Performance Assessments

Stakeholder Briefing

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What is Performance Assessment (PA)?

- Performance assessment is a tool that can be used for understanding how the natural and engineered features of a site retain radioactive materials.
- Thoroughly examines:
 - what can happen,
 - how likely it is, and
 - what can result.

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How is a PA conducted?

- Collect data
- Develop conceptual models
- Develop and test computer codes
- Analyze results

A team of experts typically repeats these steps many times, refining and improving the models if needed.

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How is a PA used?

- To estimate radionuclide release and transport, and potential exposure to an average member of a critical group.
- To estimate important parameters and models.
- To evaluate the effects of uncertainty and variability.
- To provide information to decision makers.

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Confidence in PA Results

- Confidence building very important
- Confidence developed via:
 - Technical checking and review
 - Quality assurance
 - Hand calculations
 - Comparison to other models
 - Comparison to site observations
 - Comparison to comparable sites (e.g., analogs)

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Conclusions

- Performance assessment is a widely accepted process.
- Performance assessment is intended to be an objective process for assessing risks and the associated impact of uncertainties in order to inform decision makers.
- Performance assessment is intended to increase understanding.