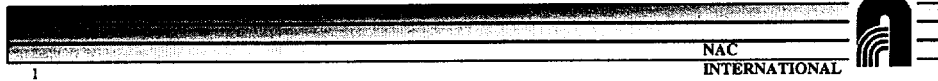


High Burnup Site Specific Approach

Willington (Bill) Lee
Vice President & Chief Engineer
NAC International

NEI/NRC Meeting
April 27, 2000



Site Specific Approach

Focused on the characteristics
and attributes of 90 specific
Maine Yankee fuel assemblies
with burnup between 45,000 and
50,000 MWD/MTU.



Fuel Characteristics and Attributes

- Comparison to UMS Design Basis Fuel
- Review of Fabrication Records
- Plant Operating Cycle Record Review
- Analytical Studies and Measurements
- Fuel Inspection
- Canister Loading Preferences

3

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Comparison to UMS Design Basis Fuel

- MTU/Assembly
- Cladding/Thickness
- Backfill Pressure
- Decay Heat/Current

4

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Fabrication Record Review

- No Fabrication Anomalies
- All Fuel Fabricated Like Other
Fuel Irradiated to Less Than 45,000
MWD/MTU

5

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Plant Operating Cycle Record Review

- All 90 Assemblies Achieved Burnup in 3 Cycles
of Operation
- All Operating Events Within Anticipated
Envelope
- No Fuel Failures in High Burnup Fuel

6

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Analytical Studies and Measurements

- Specific Fuel Studies
- Related Doe - Sponsored Research Studies
- Irradiated Material Properties Including Ductility, Yield Strength and Ultimate Strength

7

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Conclusions

1. Maine Yankee high burnup fuel assemblies are SAFE to store in the UMS system
2. The storage of the Maine Yankee high burnup fuel assemblies are COMPLIANT with standards and regulations applicable to fuel with burnup $\leq 45,000$ MWD/MTU

8

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Conclusion

3. The data and information submitted to the NRC provides **REASONABLE ASSURANCE OF ADEQUATE PROTECTION OF PUBLIC HEALTH AND SAFETY**