

Westinghouse Non-Proprietary Class 3

**Draft Slide Presentation
for the NRC/Entergy/Westinghouse
Pre-Submittal Meeting (Non-Proprietary)**

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Westinghouse Non-Proprietary Class 3

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Implementation of Improved Fuel Design for CE 16x NSSS

Presentation to NRC
October 19, 2006
White Flint, Rockville, MD

Tom Rodack & Zeses Karoutas (Westinghouse)
and
Dana Millar (Entergy)

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Agenda

- Meeting Objectives
- Background
- Fuel Design
- Topical Reports Supporting Design Implementation
- Implementation Plan
- Topical Report Status
- Summary

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Meeting Objectives

- Explain why Next Generation Fuel will be deployed for CE 16 NSSS
- Present overall licensing plan
- Provide an opportunity for NRC feedback

Background

- Westinghouse fully supports INPO initiative to drive to zero fuel leakers by 2010
 - Zero Leaking Fuel a strategic objective since 2004
- Grid-to-rod fretting is the primary PWR leaker mechanism
 - Fretting leakers typically occur in thrice burned fuel
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 - Improvements being discussed or implemented on designs for all fuel currently supplied

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Fuel Performance Overview by Product

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Background

- CE 16 Next Generation Fuel is key to promoting zero leakers in CE NSSS
 - Significant increase in grid-to-rod fretting margin
 - CE NGF features same type of spacer grid as 14x TURBO fuel that has demonstrated improved grid-to-rod fretting performance
 - Increases other design and operating margins
- CE 16 NGF LTAs in 1st cycle at Waterford
 - Scheduled for exam in December
- Region deployment planned for Spring 2008 in ANO-2 and Waterford

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Implementation of Improved Designs for CE NSSS

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CE 16 NGF Fuel Design

Zeses Karoutas

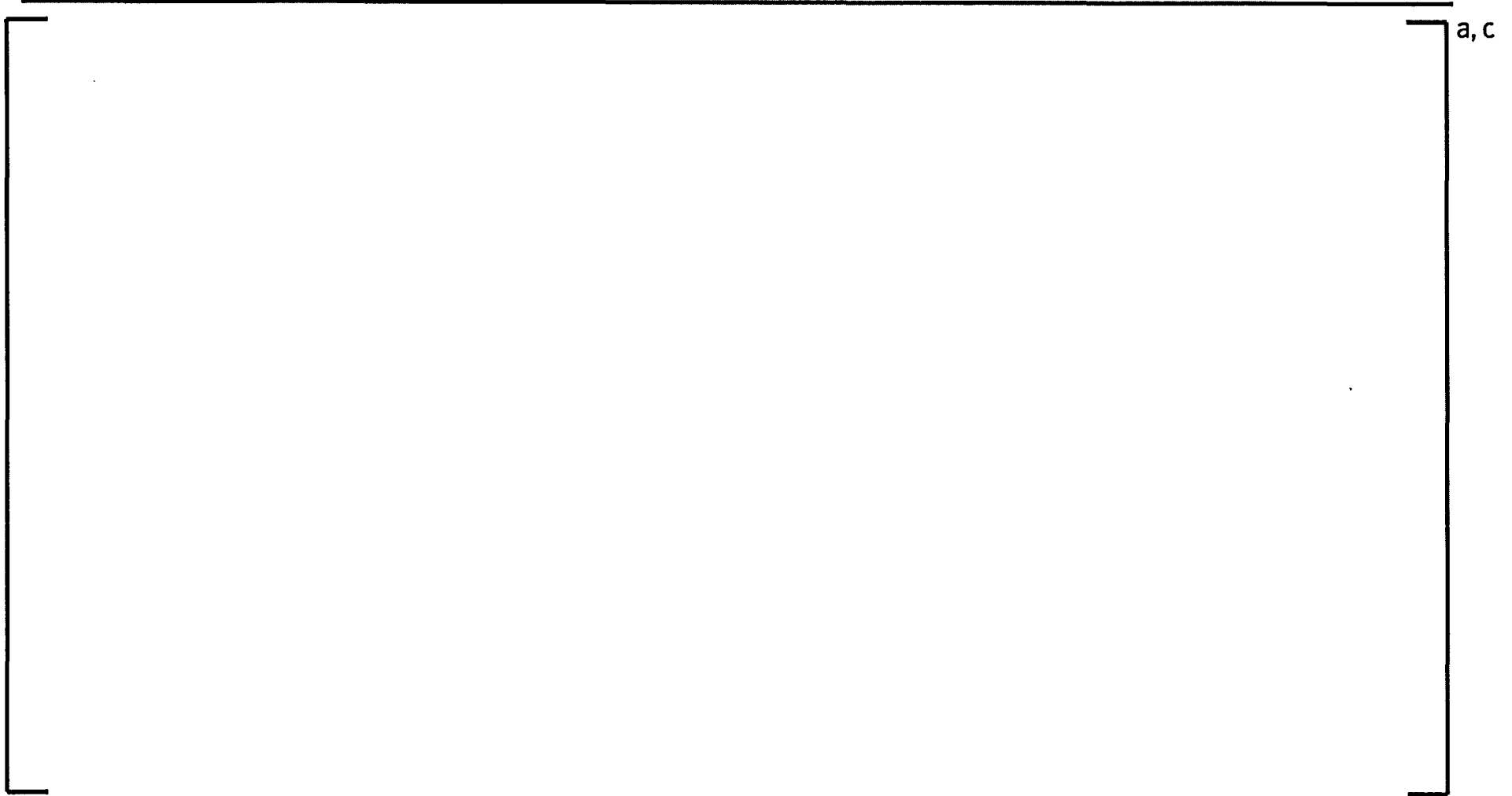
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CE 16x NGF Fuel Design

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General Program Status



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Topical Reports Supporting CE 16 NGF Implementation

Zeses Karoutas

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Core Reference Report (WCAP-16500-P)

- Submitted February 28, 2006



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Critical Heat Flux Correlation Report (WCAP-16523-P)

- Submitted March 20, 2006
- New DNB correlation form similar to ABB-NV & ABB-TV correlations approved in Topical CENPD-387-P-A



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LOCA Model Grid Heat Transfer (CENPD-132-P-A, Sup. 4-P, Add. 1-P)

- Submitted
 - As Appendix to Core Reference Report February 28, 2006
 - Re-submitted separately at NRC's request May 11, 2006

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Optimized ZIRLO™ Report (CENPD-404-P-A Add. 1-A)

- Provides the basis for use of Optimized ZIRLO™ cladding in fuel for CE and W NSSS
- Approved June 10, 2005

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NGF Implementation Plan for ANO-2 and Waterford

Dana Millar

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Implementation Plan Summary

- License Amendment Requests (LARs) planned to be submitted for both ANO-2 and Waterford
- Requests for Exemption from 10 CFR 50.46 and Appendix K to be submitted because of Optimized ZIRLO™ cladding

PLACEHOLDER TO PROVIDE
OVERVIEW OF CONTENT
SLIDE WILL BE REVISED

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Topical Report Status and Summary

Tom Rodack

Licensing Scope

- License Amendment requests for implementation of NGF in ANO-2 and Waterford will reference:
 - Core Reference Report (WCAP-16500-P)
 - Critical Heat Flux Correlation Report (WCAP-16523-P)
 - Improved LOCA Model (CENPD-132-P-A, Sup. 4-P, Add. 1-P)
- Request for Exemption from 10 CRF 50.46 and Appendix K will also be required for Optimized ZIRLO™
 - Optimized ZIRLO™ Report (CENPD-404-P-A Add. 1-A)

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Licensing Status



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Summary

- Deployment of CE 16 NGF design is key to reducing fuel leakers
- Topical reports supporting the design are under review and receiving attention
- Plant specific submittals are planned for early 2007 to support fuel load in Spring 2008