Enclosure 3

Presentation Slides for the Public Meeting with the NRC on Westinghouse EnCore Accident Tolerant Fuel: Chromium Coated Cladding

(Non-Proprietary)

September 2019

Westinghouse Electric Company
1000 Westinghouse Drive
Cranberry Township, PA 16066

Westinghouse EnCore® Accident Tolerant Fuel: Chromium Coated Cladding

Open Session - Public Introduction

September 18-19, 2019

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Purpose of Meeting

- Provide the NRC with a detailed description of the current development status of **EnCore**® Accident Tolerant Fuel (ATF) chromium-coated cladding
- Present licensing topical report plans for chromium-coated cladding
- Review the current status of the Interim Staff Guidance (ISG) on coated cladding and discuss application to the Westinghouse topical report
- Obtain early feedback from the NRC on near-term plans for the Westinghouse chromium-coated cladding topical report

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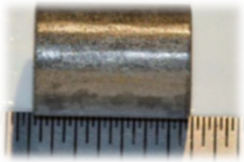
EnCore Fuel Program – Products and Benefits

Benefit	Cr-Coated Cladding ADOPT™ Fuel	Cr-Coated Cladding U_3Si_2 or UN Fuel	SiC Cladding U_3Si_2 or UN Fuel
Pellet Uranium Loading			
Fuel Utilization			
Debris and Grid-to-rod Fretting			
High Burnup			
Load Follow / Flexibility			
LOCA / DBA Margin			
DNB Margin			
Hydrogen Generation			
BDBA Operator Response Times			

Chromium-coated Cladding

SiC Cladding

ADOPT™ Fuel



U_3Si_2 or UN Fuel

LOCA: Loss of Coolant Accident
DBA: Design Basis Accident
DNB: Departure from Nucleate Boiling
BDBA: Beyond Design Basis Accident

Some / Potential Benefit

Large Benefit

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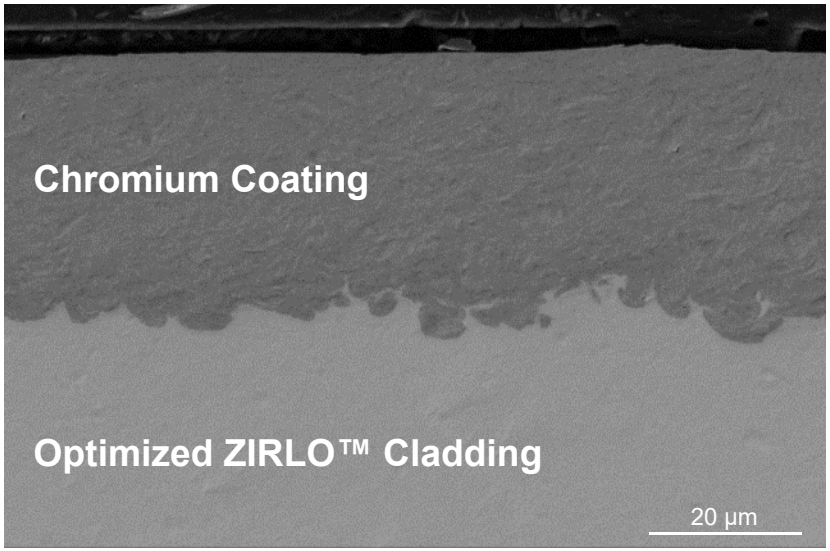
Chromium-coated Cladding

- Thin adherent and dense chromium layer
- Substrate cladding unchanged



Microstructure of As-fabricated Chromium-coated Cladding

Full Length Chromium-coated Cladding

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Agenda

- Licensing Plans
- Description of Coated Cladding
- Benefits of Coated Cladding
- Material Properties and Performance
- New Damage Mechanisms
- Impact on Analytical Methods and Alignment with ISG
- Transportation and Spent Fuel Pool Storage
- Discussion of ISG and PIRT
- Summary

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EnCore® Fuel

We're changing nuclear energy ... again

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