Public Version

# CoC 1042
# NUHOMS® EOS Amendment
# 89BTH Criticality Analysis Meeting

AREVA TN

Design Engineering & Licensing Team

NRC, Rockville, MD

# Agenda

- Introduction
- Background
- Scope of Amendment – Non-Proprietary
- Criticality Analysis Summary – Non-Proprietary
- Updated Criticality Analysis Methodology – Proprietary
- Submittal Format – Proprietary
- Questions / Open Discussion – Proprietary

# Introduction

## Purpose of the meeting:

- To present AREVA TN's proposed new methodology to perform criticality analysis for BWR fuel assemblies- NUHOMS® EOS-89BTH
- Provide an opportunity to receive NRC feedback prior to inclusion in Amendment 1 to CoC 1042 application

# Background

- CoC 1042 NUHOMS® EOS Amendment 0 resubmitted for NRC review in June 2015
- Application Scope and Design Objectives
  - New DSCs (including new baskets), HSMs, and Transfer Casks
  - Maximize Capacity
    - 37 PWR Fuel Assemblies
    - 89 BWR Fuel Assemblies
  - Increase Decay Heat Rejection
  - Enhance Structural Performance
  - Maintain NUHOMS® System Overall Design Features and Operations

# Partial Scope of Amendment

- **Revised (New) Criticality Analysis for BWR Fuel Assemblies in EOS-89BTH DSC**

# Criticality Analysis Summary

- Existing (Amendment 0) EOS-89BTH DSC criticality safety analysis based on fresh fuel assumption
- Criticality Control by poison plates with minimum specified B-10 content
- Criticality analysis performed with SCALE 6.0 and adequate benchmarking

» Original criticality analysis for EOS-89BTH DSC accepted by NRC without any RAIs

Proprietary Information in Slides 8 through 36
Withheld Pursuant to 10 CFR 2.390