

# B&W-Designed Reactor Internals Engineering Evaluations and Functionality Assessments

## MRP-229, Revision 4

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(OPEN SESSION)



# Introduction

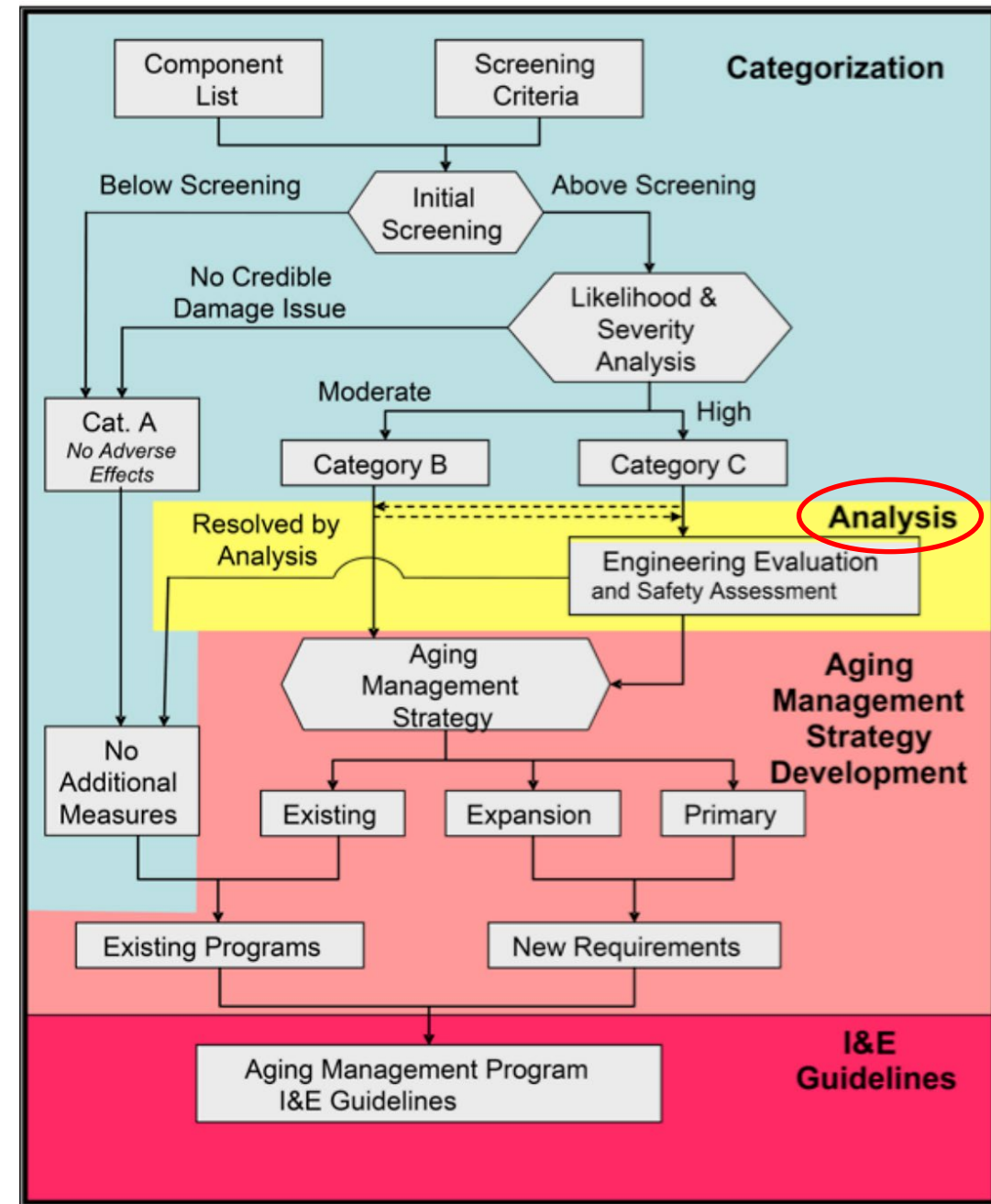
- Today's meeting is the latest in a series of NRC-industry technical information exchange meetings related to MRP-227 guidance
- Industry endeavors to support continued operations of PWRs
- Subsequent License Renewal (SLR) is a critical initiative for fleet
- Use of EPRI MRP materials research and testing results forms the foundation of a solid materials aging management strategy
- Multiple technical exchange meetings with NRC have taken place since mid-2000s
- These exchange meetings are beneficial and important to review continuing research findings that result in guidance updates

# Background

- MRP-229 Revision 0 originally published in 2008 (product ID 1016598)  
*Functionality Analysis for Babcock & Wilcox (B&W) Representative PWR Internals*
- Revision 1 published in 2009 (product ID 1019090)
- Revision 2 published in 4/2010 (product ID 1020887)
- Revision 3 published in 12/2010 (product ID 1022402), support MRP-227-A
- MRP-355 published in 2013 (product ID 3002000677), supports MRP-227, Rev. 1-A  
*Sensitivity Studies for Functionality Analysis of Reactor Internals of B&W-design PWR Internals*
- MRP-229 Revision 4 published in 2020 (product ID 3002018247)
- EPRI submitted MRP-229 Revision 4 to NRC for information in November 2020 under letter MRP 2020-021 (ML20244A027)
  - Supports subsequent license renewal and forthcoming MRP-227, Revision 2
- Technical report performs critical role in developing MRP-227
  - Evaluates materials aging functionality of components for B&W-design plants
  - Documents the results of finite element modeling evaluations for components
  - Key input document for MRP-227 guidance for subsequent license renewal

# Background (cont.)

- MRP-229 (and MRP-355) contains everything in the “Analysis” box
  - Provides key input to downstream steps
  - Made updates based on new test data
- Higher risk category components
  - Become leading components (“Primary”)
- Approach is the same as for MRP-227 Revision 0 and 1





# CLOSED SESSION BEGINS

A blue-tinted photograph of four people, two men and two women, standing in a row. They are dressed in professional attire, including lab coats and a hard hat. The image is overlaid with a semi-transparent blue filter. The text 'Together...Shaping the Future of Electricity' is centered over the image in white.

**Together...Shaping the Future of Electricity**