

# PWR Reactor Internals Aging Management Strategies - 2021

Updates to **MRP-231** for SLR

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# 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

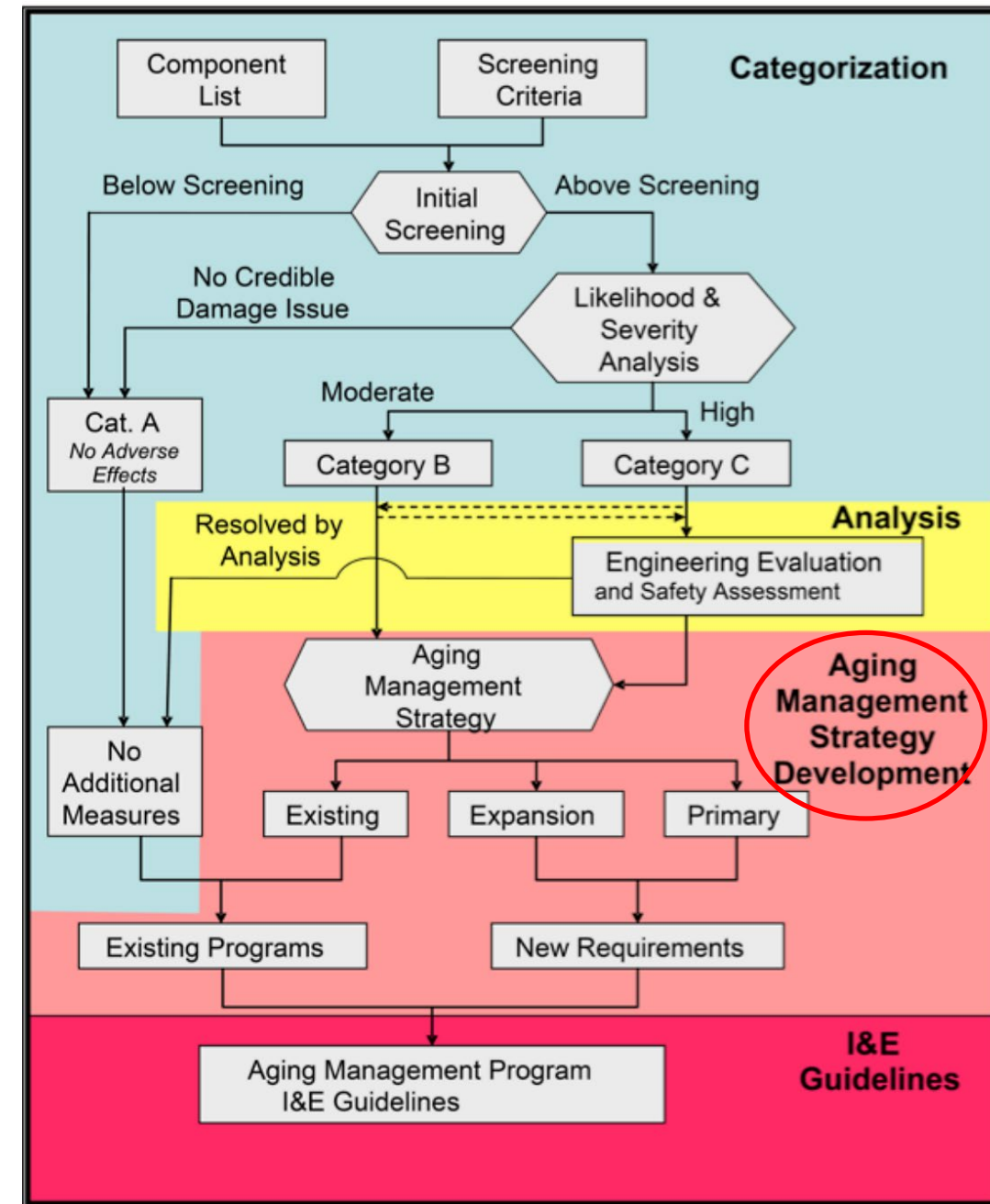
# Background

- MRP-231 Revision 0 originally published in 2008 (product ID 1016592)
- Revision 1 published in 2009 (product ID 1019092)
- Revision 2 published in 2010 (product ID 1021028)
  - Support MRP-227-A and initial PWR license renewal periods beyond 40 calendar years
- Revision 3 published in 2014 (product ID 3002004284)
  - Support MRP-227-Revision 1 and Revision 1-A
- Revision 4 published in 2021 (product ID 3002020103)
  - Focused all license renewal periods (beyond 40 calendar years)
  - Support subsequent license renewal and recently finished MRP-227, Revision 2 guidelines
- EPRI submitted Revision 4 to NRC for information in June 2021 under letter MRP 2021-011 (ML21225A069)
- Technical report performs critical role in developing MRP-227
  - Evaluates aging management strategies for materials degradation during long-term operations of PWR reactor internals components for B&W-design plants
  - Key input document for MRP-227 guidance for subsequent license renewal

# Background (cont.)

- MRP-231 contains everything in the “Strategy Development” box for B&W
  - Provides key input to downstream steps
  - Made updates based on new test data
- Higher risk category components
  - Become leading components (“Primary”)
- Separate consequences related to nuclear safety and costs/economics
- Approach is the same as for MRP-227 Revision 0 and 1

<https://www.epri.com/research/products/000000003002020103>





# CLOSED SESSION BEGINS



A blue-tinted photograph of four people standing in a row. From left to right: a woman with curly hair and glasses wearing a lab coat; a man with glasses wearing a lab coat; a woman wearing a hard hat and safety glasses, also in a lab coat; and a man with glasses and a beard wearing a button-down shirt. The lab coats and hard hat have the EPRI logo on them. The text "Together...Shaping the Future of Energy™" is overlaid in white in the center.

Together...Shaping the Future of Energy™