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2023 NRC WORKSHOP ON ADVANCED MANUFACTURING TECHNOLOGIES FOR NUCLEAR APPLICATIONS – WORKSHOP OVERVIEW -

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OUTLINE

- Public Workshop
  - Overview and approach
  - Summary of sessions
  - Organization and logistics

WORKSHOP OVERVIEW

- Location/Dates:
  - NRC HQ in the TWFN Auditorium and online using Teams.
  - October 24-26, 2023, 8 am to ~5 pm
- Motivation – Be Ready
  - Potential interest in implementing advanced manufacturing technologies (AMTs) for nuclear applications such as replacement components in operating nuclear power plants and in initial construction of small modular and advanced reactors.
  - The efficient and effective introduction of components produced by AMTs in nuclear applications depends on a shared understanding of technical and regulatory challenges, success paths, and future opportunities.
- Objectives are to update the staff and stakeholders on:
  - Practical experience and plans for implementing AMT components/technology
  - AMT process/part qualification and certification approaches, including the incorporation of modeling and simulation, and rapid qualification
  - The latest developments in codes and standards pertaining to AMT adoption

WORKSHOP SESSIONS

- Session 1- Implementation of AMTs in Nuclear and Non-Nuclear Applications
  - Objectives: Provide information on experience using AMT components for nuclear and non-nuclear applications.
- Session 2 - Qualification and Certification (Q&C)
  - Objectives: Share approaches developed, or under consideration, to qualify AMT materials and components made using AMTs for applications involving component manufacturing and surface treatments.
- Session 3 - Performance Characteristics
  - Objectives: Provide information related to the performance of AMT materials and components including approaches to developing data for qualification
- Session 4 - Codes and Standards
  - Objectives: Provide updates on the latest codes and standards (C&S) related to the use of AMTs.

WORKSHOP APPROACH

- Goal is to have an interactive workshop with multiple opportunities for dialogue
- Presentations:
  - See agenda for durations
  - Q&A after each presentation (~5 min)
  - Two discussion sessions each day (~20 min)
- Q&A following presentations:
  - Questions will be taken from the auditorium first, then online questions will be addressed
    - In-person attendees please use microphones to ask questions
    - Online attendees please place questions in the chat window during the presentation and we will address as many as possible in the allotted time
      - If you would like to ask your question verbally, please use the Raise Hand feature in Teams.

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