

# UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

August 18, 2020

MEMORANDUM TO: Shaun M. Anderson, Managing Director

**EMBARK Venture Studio** 

Office of Nuclear Reactor Regulation

FROM: Bill Rogers, Sr. Reactor Engineer /RA/

License Renewal Projects Branch Division of New and Renewed Licenses Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF MAY 27, 2020, PUBLIC MEETINGS ON NRR

(1) EMBARK VENTURE STUDIO (EMBARK) ORIENTATION, (2) EMBARK PROJECT-STREAMLINING 10 CFR 50.55a AND (3) EMBARK PROJECT-RISK INFORMING SUBSEQUENT

LICENSE RENEWAL-PROCESS IMPROVEMENTS

On May 27, 2020, the U.S. Nuclear Regulatory Commission (NRC) held Category 2 public meetings to (1) provide an orientation to the Office of Nuclear Reactor Regulation's EMBARK Venture Studio (EMBARK) and (2) present the EMBARK Streamlining 10 CFR 50.55a project—NRC Standards Steering Committee Decisions on the Path Forward for Recommendations on Streamlining 10 CFR 50.55a to the ASME Codes and (3) present the EMBARK Risk Informing Subsequent License Renewal – Process Improvement proposals.

#### Office of Nuclear Reactor Regulation's EMBARK Venture Studio

Caroline Carusone, the Director of EMBARK, described EMBARK's mission to be a creative catalyst that removes barriers to innovation and to launch initiatives that improve the way the NRC works to make the safe use of nuclear technology possible. It was noted the EMBARK channels staff energy and ideas by creating ambitions teams, who seek to solve the most pressing challenges, and create innovative opportunities to deliver results. The presentation also included the EMBARK operating model—enable, advise, partner, create and teach—and how it is implemented, as well as a discussion on the EMBARK departments and examples of current projects.

### EMBARK Venture Studio 10 CFR 50.55a Codes and Standards Streamlining Project

The staff presentation on the EMBARK "Streamlining 50.55a - Codes and Standards," project began with a discussion of the project's purpose: To identify and evaluate potential improvements in the 10 CFR 50.55a regulation and its implementation in order to streamline the long-standing process and increase its efficiency and effectiveness. The staff initially identified three categories for potential improvement: Increased clarity of the rule, improved process efficiency, and increased flexibility for applicants and licensees.

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The staff presentation discussed the process used to develop and evaluate ideas for each of the three categories and present the staff's recommendations, which included the EMBARK team's consideration of a number of proposed initial ideas; and distillation and development of those ideas during internal townhall meeting with NRC staff, public meetings with external stakeholders, staff participation on the Board on Nuclear Codes and Standards, and presentation to NRC management.

Following the discussion on the process, the staff presented the outcome of the staff's review, which was supported by the NRC American Society of Mechanical Engineers (ASME) Code Steering Committee and includes the following three recommendations:

- Institute yearly rules for Code Cases
  - o Direct final rule for noncontroversial Code Cases
  - Standard rule for conditioned Code Cases
  - o Alternate each year
- Relax the interval requirement to update inservice inspection (ISI) and inservice testing (IST) programs every 10 years, provided that licensees adopt a recent version of Section XI and OM Codes
- Optimize the frequency of Code Edition rulemakings

The staff indicated that the implementation of recommendations will be assigned to the organization within NRC responsible for work products, and a Rulemaking plan will be developed with corresponding public outreach commission engagement.

Following the staff's presentation, a Nuclear Energy Institute (NEI) representative made a presentation addressing staff's recommendations and indicating several areas for the staff to consider when proceeding with implementation of the recommendations. The NEI representative indicated support for the staff's recommendations and indicated proposed changes were of high priority to the industry, relative to other potential changes. The representative also indicated that the preferred interval extension for the ISI and IST updates was from 10 to 24 years to accommodate the various refueling cycles. In addition, it was noted that the staff should consider the impacts and provide a basis if tying a regulation change to specific code edition. The representative indicated support for the expediting of approved ASME code cases and for extending the code update period.

#### EMBARK Risk Informing Subsequent License Renewal – Process Improvement

The staff began the presentation with a discussion on the project's purpose. The EMBARK "Risk Informing Subsequent License Renewal," (RISLR) – Process Improvement project was initiated to evaluate the subsequent license renewal application (SLRA) safety review process while considering lessons learned from the review of the three initial SLRAs. The team consisted of technical reviewers, project managers, SLs, and branch chiefs, from several divisions; obtained feedback from technical review staff and management during multiple town hall meetings; and met with NEI and other stakeholders during and April 7 public meetings, to present proposals and receive comments.

The staff then presented on the modified approach, which includes.

- Increase the use of more focused discussions during pre-submittal meetings to identify
  areas, prior to SLRA receipt, that will require additional staff resources during the review
  (as previously identified during the initial SLRA reviews).
- Perform the acceptance review with an integrated review team of approximately eight people representing the various engineering disciplines and which have an awareness of the specific information that is required for a quality application (previously performed by approximately fifty reviewers according to assignments).
- Eliminate the on-site (locally performed) Operating Experience Audit as a stand-alone
  activity (previously performed by approximately fifty reviewers according to assignments
  and requiring extensive applicant IT support and security measures for CAP database
  access). Going forward, focus staff activities on auditing the applicant's evaluation of OE
  rather than the staff performing an extensive review of the CAP database.
- Capture all audit activities in a single "Aging Management Audit" consisting of three parts:
  - o In-Office Technical Review (Part 1), review of the SLRA and portal information.
  - o On-Site Audit (Part 2), replaces previous Operating Experience Audit and is performed by an integrated review team of approximately eight people.
  - In-Office Audit Breakout Sessions (Part 3), increased applicant coordination on scheduling, focus on issue closure, and use of discipline specific, multiple-topic sessions.

The presentation concluded with the staff indicating that it intended to implement the safety-review process modification, the extent practical, on the next SRLA to be reviewed.

Following the staff's presentation, NEI and other industry representatives indicated general support for the modifications, with the exception of one comment suggesting that the staff should consider eliminating the use of more than one safety project manager per SLRA review in order to reduce the use of staff resources.

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VENTURE STUDIO (EMBARK) ORIENTATION, (2) EMBARK PROJECT-STREAMLINING 10 CFR 50.55a AND (3) EMBARK PROJECT-RISK

INFORMING SUBSEQUENT LICENSE RENEWAL-PROCESS

IMPROVEMENTS DATED: AUGUST 18, 2020

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