



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

July 12, 2021

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SUBJECT: 10 CFR PART 52 LESSONS-LEARNED WITH  
CONSTRUCTION AT VOGTLE 3 & 4 AND  
V.C. SUMMER 2 & 3

This memorandum transmits the enclosed Title 10 of the *Code of Federal Regulations* (CFR) Part 52 Lessons-Learned Working Group Charter. The working group (WG) is comprised of staff from across the agency with broad knowledge of the inspection, licensing, and assessment programs as implemented during the construction of the AP1000 units at the Vogtle and V.C. Summer sites. The purpose of the WG is to assess the U.S. Nuclear Regulatory Commission's licensing; inspections, tests, analyses, and acceptance criteria; and construction oversight and inspection programs pursuant to 10 CFR Part 52. The WG is expected to identify best practices and lessons learned that can be used to further enhance our future regulatory activities pertaining to the construction of new facilities, including small modular reactors and advanced reactor technologies. In addition, the WG will assess various project management initiatives, including public interactions, risk mitigation measures, and resource planning.

The WG should provide a written summary report to the Vogtle Project Office and Division of Construction Oversight Branch Chiefs within 4 months of the start of Unit 3's commercial operations. At a minimum, this summary report should document any areas for improvement identified by the WG, their basis, and any related WG recommendations.

Management Directive (MD) 6.8, "Lessons-Learned Program," was reviewed as part of developing the charter. The Lessons-Learned Program described in this MD and the associated handbook is a set of processes, procedures, and oversight that is designed to collectively ensure that significant agency deficiencies are identified and corrected in such a way that they do not recur. Because the WG is assessing best practices and lessons learned unrelated to a significant deficiency, the staff determined that a formal lessons-learned review in accordance with MD 6.8 was not necessary. However, the WG should use Exhibit 1, "Lessons-Learned Template," of the MD to document any lessons-learned insights.

Staff should use EPID M-2021-OTH-0008 for work on this lessons-learned initiative.

Enclosure:

10 CFR Part 52 Lessons-Learned Working Group Charter

SUBJECT: 10 CFR PART 52 LESSONS-LEARNED WITH CONSTRUCTION AT  
VOGTLE 3 & 4 AND V.C. SUMMER 2 & 3 DATED: JULY 12, 2021

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**ADAMS Accession No.: ML21160A031**

**\*via email**

**NRR-106**

<b>OFFICE</b>	NRR/VPO/PM	NRR/VPO/LA	NRR/DRO:BC	DCO/RII	NRR/VPO/BC
<b>NAME</b>	JRankin*	RButler*	CMiller	MBailey	GBowman
<b>DATE</b>	06/09/2021	6/16/2021	7/12/2021	7/12/2021	7/12/2021

**OFFICIAL RECORD COPY**

## **Part 52 Lessons-Learned Working Group Charter**

### **PURPOSE**

The purpose of this working group (WG) is to conduct a holistic assessment of the U.S. Nuclear Regulatory Commission's (NRC's) 10 CFR 52 (Part 52) licensing and construction oversight and inspection programs for the purpose of improving the effectiveness and efficiency of future programs.

The WG will evaluate the NRC's construction inspection, inspections, tests, analyses, and acceptance criteria (ITAAC), and licensing effectiveness, highlight actions that contributed to the success of construction program implementation, and identify areas to specifically emphasize where improvements can be made in keeping with the NRC's Principles of Good Regulation (Independence, Openness, Efficiency, Clarity, and Reliability). The WG should look for areas of transformation and innovation in the construction program while adhering to the key principles that guide the manner in which we conduct our work and make decisions, particularly with respect to the concept of "reasonable assurance of adequate protection."

Accordingly, the WG will solicit input and assess feedback from internal and external stakeholders (staff, licensees, public, and industry), as necessary. Additionally, the WG will leverage, as appropriate, construction operating experience, international inspector exchange experience, and inspection data to determine whether the licensing, ITAAC, and construction oversight and inspection programs apply the appropriate focus on areas with demonstrated performance issues and areas that provide the greatest benefit. The WG should consider ways to make all phases of the construction inspection program smarter (scheduling, preparation, inspection, enforcement, documentation, reporting, etc.).

### **WORKING GROUP MEMBERSHIP**

The WG will be led by the Vogtle Readiness Group (VRG) co-chairs. The co-chairs will be supported by the following organizations:

- Vogtle Project Office, Office of Nuclear Reactor Regulation (NRR)
- Division of Construction Oversight, Region II
- Division of Reactor Oversight, NRR
- Office of Nuclear Security and Incident Response
- Office of the General Counsel

### **SCOPE**

The WG should focus on experiences from the 10 CFR Part 52 construction program development and implementation to identify lessons-learned. Two products will be completed as a result of this effort. First, the staff will use Nuclepedia as an internal method to capture and share results of the lessons-learned effort. The scope for the Nuclepedia effort is listed below. The second product for this effort will be a publicly available summary report which will focus on construction inspection, ITAAC, and licensing insights. The Nuclepedia effort will cover a broader array of topics as the staff reviews and documents the lessons-learned from the internal processes used to support the construction project.

Note: Nuclepedia is the NRC's knowledge resource wiki, a continuously evolving and collaborative online encyclopedia of nuclear regulatory information including articles, documents, graphics, animations, and presentations. The wiki platform allows NRC staff to internally and informally share information across organizations and facilitates the capture of critical knowledge, significant events, and regulatory issues and lessons-learned.

## PROCESS

- A. Gather feedback from internal and external stakeholders and consider that feedback in the development of recommendations for changes to the program. In addition, the WG should identify subject matter experts and inspectors among the different communities of practice who have experience with 10 CFR Part 52 to gather recommendations.
- B. Use Nuclepedia to collect and store accounts and testimonials from staff. The [Nuclepedia lesson-learned launch page](#) (for NRC internal use only) will provide a convenient portal for staff to populate their experiences with 10 CFR Part 52. During this lessons-learned initiative, owners of the site, i.e., WG members, will be responsible for maintaining the content and editing for general consistency.

The WG notes that the outline for Nuclepedia content is a recommended structure and may change based upon additional insights as the WG develops the site. The following outline will form the general structure for input:

- Construction Project Management
  - Construction Inspection
  - Construction Reactor Oversight Process (cROP)
  - ITAAC Insights
  - Licensing Insights
  - Operator Licensing and Simulator Insights
  - New Technology Inspector Training Best Practices
  - Information Technology (IT) Infrastructure
  - Public Interactions (including International)
- Minimizing Risk During Construction and the End of the Project
  - ITAAC Closure Notification Surge Preparation
  - Tabletop Exercises for Staff Training (Internal and External)
  - 10 CFR 52.103(g) Memorandums and Commission Communications
  - ITAAC Hearing Preparations
  - Vogtle Readiness Group
- Processes That Could Impact the 10 CFR 52.103(g) Finding
  - Office of Investigations
  - Allegation Management and Late-Filed Allegations
  - 10 CFR 52.103(f) Petitions
- Staffing Resources
  - Original 10 CFR Part 52 Combined Operating License Application Landscape vs. Two Combined Licenses (COLs)
  - V.C. Summer COL Termination
  - Pandemic Effects

- Transition from Construction to Operations
    - Staffing Transition
    - IT Transition
    - Transition of cROP to Reactor Oversight Process
- C. Assess the various Inspection Manual Chapters and Inspection Procedures (IPs) to identify areas for enhancement in oversight and inspection guidance and determine if more efficient and effective ways exist to accomplish agency goals while further integrating risk-informed insights. The assessment should also evaluate inspection requirements and guidance and identify any recommendations to enhance the clarity of the guidance to meet the program requirements. Consider, as a minimum, the following:
- Inspection guidance structure, including scope and frequency of inspections
  - Overlap areas between the IPs
  - Dispositioning inspection findings, including the documentation, classification, and significance determination process associated with inspection findings
  - Inspection resources
  - Any other areas for enhancement of the IPs
- D. Develop recommendations and justifications for changes to the current cROP. Evaluate the proposed changes with regards to the NRC's Principles of Good Regulation (Independence, Efficiency, Reliability, Openness, and Clarity) and our mission. Specifically, consider the following aspects as applicable:
- Mission impact (degree to which the option would deliver confidence that the objectives are met in support of reasonable assurance of adequate protection)
  - ITAAC and construction inspection scopes, and associated inspection procedures
  - Ability to respond to events and emergent issues
  - Flexibility and suitability of the program to meet future needs
- E. Obtain approval from the VRG co-chairs on any recommended changes to the construction oversight program. Those recommendations approved by the co-chairs will be referred to the appropriate organization for action.
- F. Develop a publicly available summary report that includes specific recommendations to improve the effectiveness and efficiency of the construction program. This summary report should include lessons-learned from construction oversight and inspection, ITAAC, and licensing insights.

## **COMMUNICATIONS**

At a minimum, the WG will provide the VRG co-chairs with updates on the progress of the lessons-learned during monthly calls with the co-chairs and at VRG meetings. More frequent meetings with the co-chairs will be established, if needed. The WG will provide updates to the senior executives during the regularly scheduled VRG senior management briefings. In addition, public meetings will be scheduled as described below in the Proposed Project Plan.

The working group will obtain approval from the co-chairs prior to making substantive changes to the charter taskings or desired outcome.

**PROPOSED PROJECT PLAN**

Activity	Target Date	Estimated Level of Effort
<b><u>Introduce Lessons-Learned Initiative to the NRC staff:</u></b> Introduce the initiative to supporting organizations. Vogtle Readiness Group meetings and other internal communications may be used.	July 16, 2021	24 hours
<b>Develop and Issue Charter</b>	July 30, 2021	40 hours
<b><u>Introduce Lessons-Learned Initiative at a Routine Public Meeting:</u></b> Discuss the draft charter and intention to collect feedback from the public	August 30, 2021	40 hours (includes staff support during meeting)
<b><u>Conduct Public Meeting #1:</u></b> Interactive workshop for stakeholders to provide areas for potential improvement for the 10 CFR Part 52 construction program. Present and gather preliminary ideas for further consideration.	Within 2 months following Unit 3's 10 CFR 52.103(g) finding	40 hours
<b>Complete Nuclepedia updates for Unit 3 up through the 10 CFR 52.103(g) finding</b>	Within 4 months following Unit 3's 10 CFR 52.103(g) finding	Approx. 24 hours per topic
<b>Complete Nuclepedia updates for Unit 3 through commercial operations</b>	Within 3 months following Unit 3's commercial operations	
<b><u>Issue Unit 3 Summary Report:</u></b> This is a summary report from the information provided in Nuclepedia for construction inspection, ITAAC, and licensing insights.	Within 2 months following the Nuclepedia updates for Unit 3	200 hours (includes management and legal review)
<b><u>Conduct Public Meeting #2:</u></b> Present conclusions from Unit 3 lessons -learned summary report	Within 1 month of Unit 3 summary report issuance	40 hours
<b>Complete Nuclepedia updates for Unit 4 up through the 10 CFR 52.103(g) finding</b>	Within 3 months following Unit 4's 10 CFR 52.103(g) finding	200 hours
<b>Complete Nuclepedia updates for Unit 4 through commercial operations</b>	Within 3 months following Unit 4's commercial operations	
<b><u>Issue addendum to summary report with Unit 4 experience, if necessary:</u></b> This is an addendum to the Unit 3 summary report with Unit 4 insights.	Within 4 months following Unit 4's commercial operations	100 hours (includes management and legal review)