

A group of approximately ten people, mostly men and a few women, are standing on a construction site. They are all wearing white hard hats. The site is filled with large, cylindrical concrete structures, some of which have metal mesh or grating around them. In the background, a large, dome-shaped structure, likely a nuclear reactor containment dome, is visible under a clear blue sky. The ground is a mix of concrete and dirt, with some construction equipment and materials scattered around.

# Briefing on the Results of the Agency Action Review Meeting

June 16, 2022

# Agency Action Review Meeting (AARM) Objectives

01

Review the appropriateness of NRC actions taken for licensees with significant performance issues

02

Review Nuclear Materials and Waste Safety Program Performance and Trends

03

Review effectiveness of the Reactor Oversight Process (ROP) and the Construction ROP

04

Ensure that trends in industry and licensee performance are recognized and appropriately addressed



# Agenda

---

## Theresa Clark

- Nuclear Materials and Waste Safety Program Performance and Trends

## Phil McKenna

- CY 2021 ROP Self-Assessment Results
- Status of the ROP during COVID-19
- Inspection Findings Trend

## Marissa Bailey and Vic Hall

- CY 2021 cROP Self-Assessment Results
- Transition of Vogtle Unit 3 from Construction to Operations



# Nuclear Materials and Waste Safety Program

Theresa Clark, Deputy Director

Division of Materials Safety, Security,  
and State and Tribal Programs

Office of Nuclear Material Safety and  
Safeguards



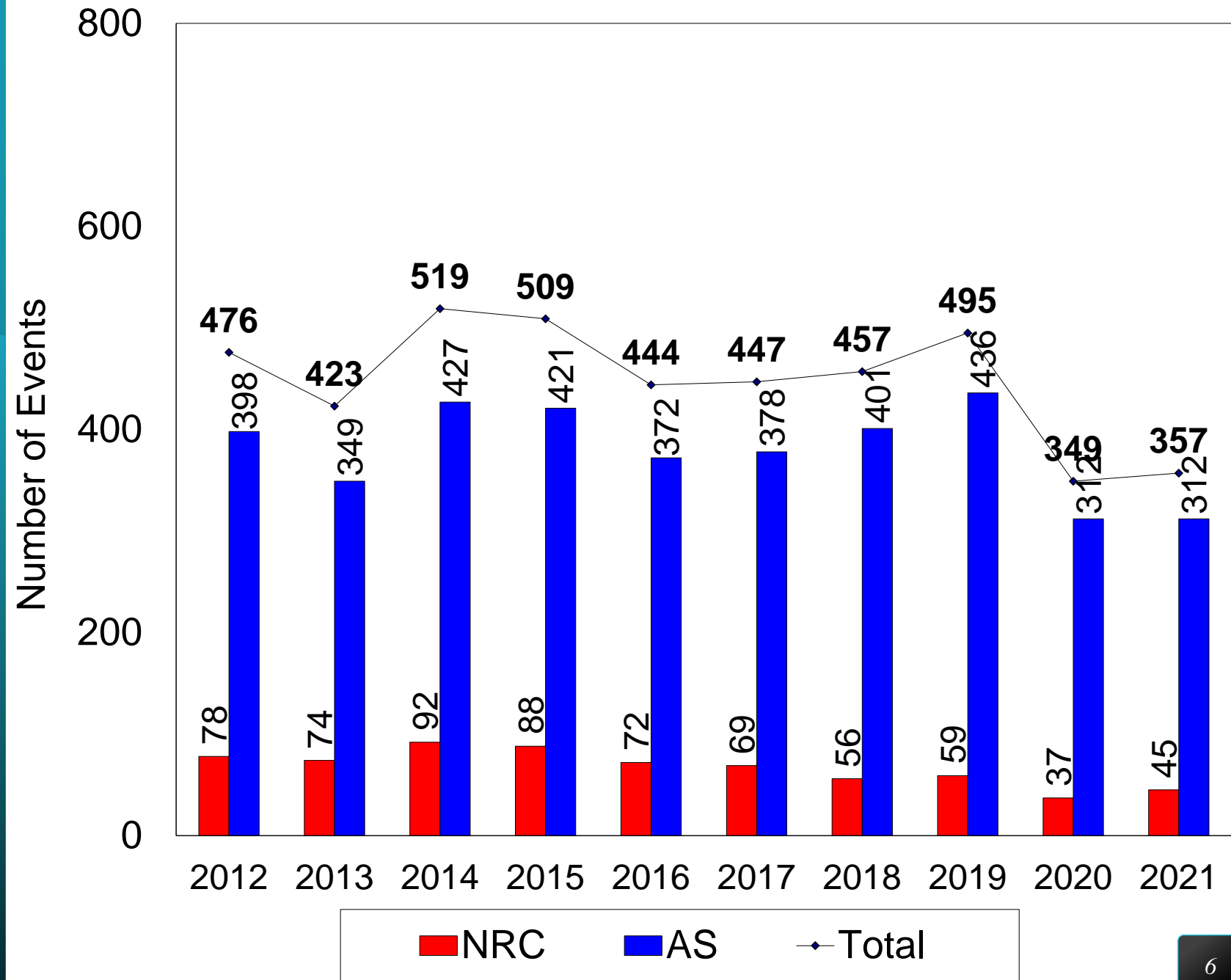


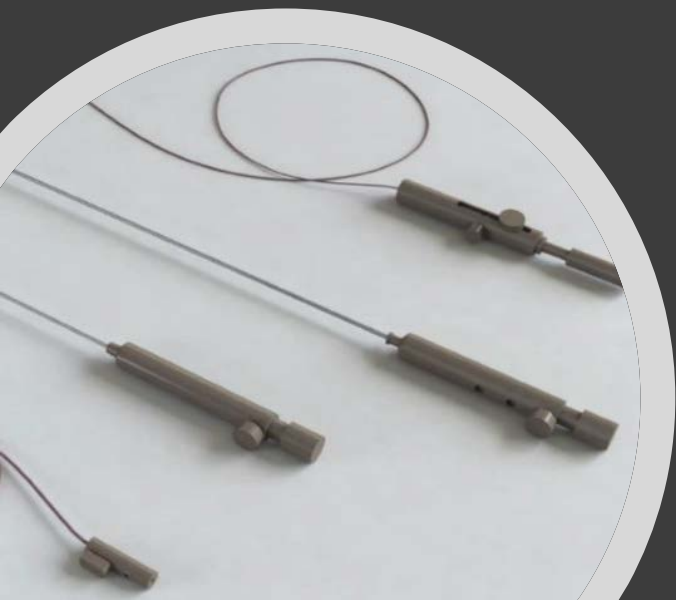
# Sound Licensee Performance across the Nuclear Materials and Waste Safety Program

- Looked for trends in:
  - Operational performance issues
  - Licensee performance issues
  - NRC program issues/gaps
- No nuclear materials licensee met the significant performance issue criterion in SECY-11-0132
- Met all strategic goals and performance measures



No Significant  
Trends in  
Materials Event  
Data or  
Escalated  
Enforcement





## Several Medical Abnormal Occurrences

- 7 potential medical-related Abnormal Occurrences identified for FY 2021
- No significant trends
- Number of medical events is small relative to the millions of procedures involving the use of radioactive material



# Agreement State Assessments Going Smoothly

- The Integrated Materials Performance Evaluation Program (IMPEP) continues to be effective.
- 9 IMPEP reviews in FY 2021; all adequate and compatible, as appropriate
  - No significant actions
  - In-person reviews restarted near end of FY 2021; large number in CY 2022





# Mission Work Continued During COVID-19 Pandemic

## Inspections

- Updated guidance for transition to hybrid work

## Audit of NMSS COVID-19 Oversight Processes

- Processes were generally effective
- 5 recommendations to document pandemic procedures and strengthen use of Web-Based Licensing

## Oversight Activities Assessment

- Comprehensive assessment
- 8 recommendations to enhance the program



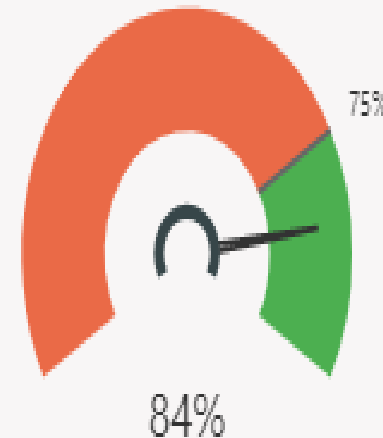
# Working as One NMSS

- Four NMSS business lines, one method of operations—wherever reasonable
- Modernizing and risk-informing inspection programs with common terminology
- Updating and centralizing procedures and process for operating experience
- Launched the NMSS Data Foundation to increase the use of data-driven decision-making and dashboards

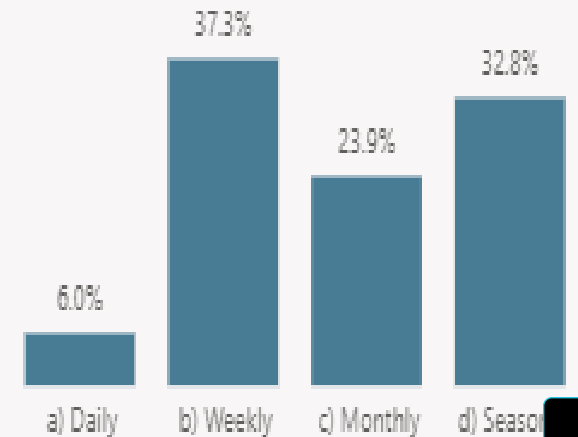


## Summary and testimonials

Overall positive score



Usage frequency percentage



# Always Improving

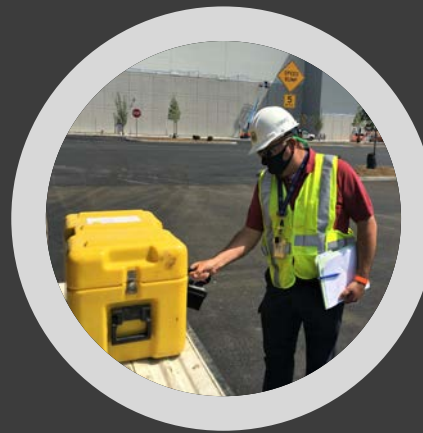
- Waste Incidental to Reprocessing
  - Improvements to guidance
  - Enhanced communications
- Very Low Safety Significance Issue Resolution (VLSSIR)
  - Screening criteria for assessing and dispositioning issues
  - Successful specific implementation and general enforcement guidance





# Many Successes in FY 2021

- No significant trends
- Success during pandemic
- “OneNMSS” approach
- Innovation, knowledge management, and risk-informing across all NMSS program areas





# ROP Self-Assessment, COVID-19, and Inspection Findings Trend



Phil McKenna, Branch Chief

Reactor Assessment Branch

Division of Reactor Oversight

Office of Nuclear Reactor Regulation

# ROP Self-Assessment Activities in CY 2021

- Performance Metrics
- Data Trending
- Program Area Evaluations
- Effectiveness Review of Change to Column 3 of the Action Matrix
- Effectiveness Review of the VLSSIR Process
- ROP Lessons Learned Tracker
- Comprehensive Baseline Inspection Program Review
- Continuous Baseline Inspection Procedure Monitoring - Paused





# Plans for CY 2022 ROP Self-Assessment Activities

## 01

Element 1: Measure Regional and Headquarters Program Effectiveness and Uniformity Implementing the ROP

- Performance Metrics
- Data Trending
- Program Area Evaluations (Including Review of SDP Timeliness)
- Implementation Audit of Region I

## 02

Element 2: Assess Effectiveness of Recent ROP Changes and Evaluate the NRC's Response to Significant Licensee Events or Declining Licensee Performance

- Effectiveness Reviews (Safety Culture, ANO and Pilgrim 95003 Lessons Learned)
- Lessons Learned Tracker

## 03

Element 3: Perform Focused Assessments of Specific ROP Program Areas, Including the Baseline Inspection Program

- Baseline Inspection Procedure Monitoring – to be revised

# Status of the ROP during COVID-19 in CY 2021



- Accomplished both onsite and remote oversight activities at operating reactors, while taking precautions to minimize exposure to COVID-19
- Completed more than 150,000 direct baseline inspection hours nationwide
- Sustained reasonable assurance of safe plant operation
- Completed the baseline inspection program in CY 2021

# COVID-19 Lessons Learned for the ROP

## Initial COVID-19 Lessons Learned

- 17-member team from NRR, NSIR and the regions
- Performed a survey of internal NRC stakeholders
- Report issued in January 2021
- Concluded that the oversight of nuclear power reactors during the pandemic was appropriate considering the circumstances

## Comprehensive BIP Review

- Focused on BIP lessons learned from the COVID-19 pandemic and flexibilities to complete the BIP during a future pandemic, or other emergent circumstances precluding onsite access
- Report issued in November 2021

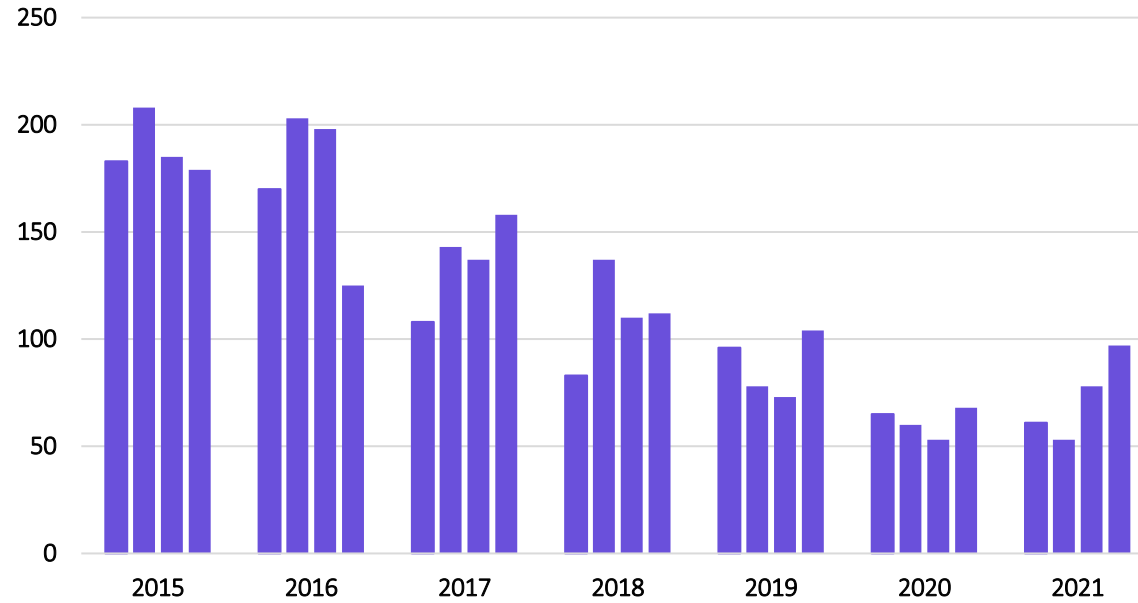
## Follow-on Review of Lessons Learned, Best Practices, and Challenges

- Includes engagement opportunities with external stakeholders
- Identify potential enhancements to the program for both emergency and nonemergency use
- Charter approved November 19, 2021
- 17-member team from NRR, NSIR, the regions, and NMSS

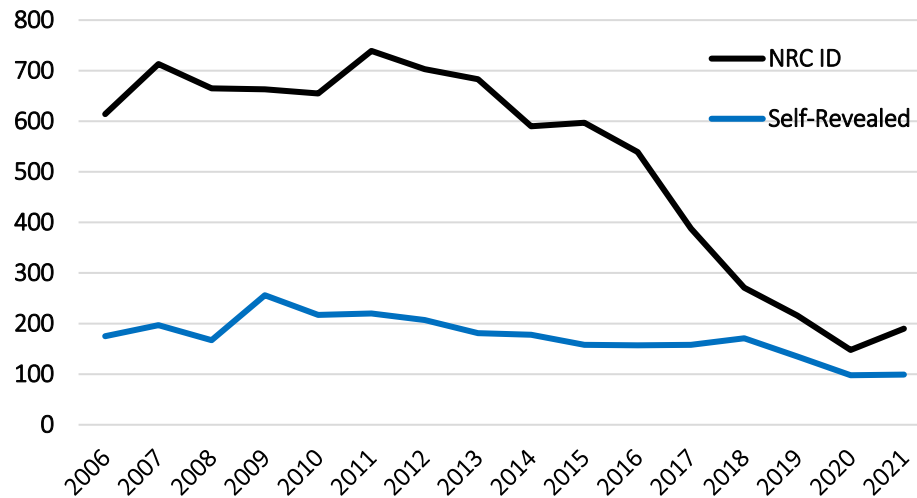


# Trend in Green ROP Inspection Findings

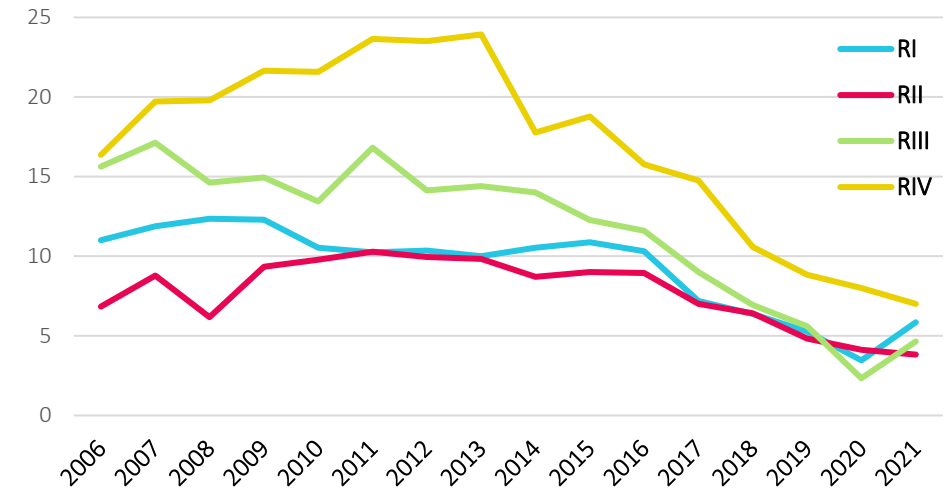
## Green Findings by Quarter



## Green Findings by ID Credit



## Findings per Site by Region



# CY 2021 ROP Self- Assessment Results

- The ROP is an effective and robust program
- The ROP is objective, risk-informed, understandable, and predictable
- The ROP supports the agency's strategic safety and security goals: to ensure the safe and secure use of radioactive materials





# Construction ROP and Transition to ROP



**Marissa Bailey, Assistant for Operations**

Office of the Executive Director for Operations

**Vic Hall, Branch Chief**

Vogtle Project Office

Office of Nuclear Reactor Regulation



# Construction Reactor Oversight Process

## *Ensuring Strong and Effective Oversight of Vogtle 3 & 4*

- No cROP Action Matrix deviations in CY 2021
- Met all performance metrics except one
- Staff demonstrated proactiveness and willingness to challenge themselves

April 2011

November 2021





# 2021 Annual Assessment

- Units 3 and 4 being constructed in a manner that preserves public health and safety
- Unit 3 in the Regulatory Response Column; Unit 4 in the Licensee Response Column
- Units 3 and 4 had 21 findings with cross-cutting aspects in Human Performance

# Effectively Using the cROP Significance Determination Process

---

- Identified two White findings in 2021
- Placed Unit 3 into Regulatory Response column
- Conducted successful supplemental inspection in March 2022
- Returned Unit 3 to Licensee Response column in April 2022





# Vogtle Unit 3 Final Assessment

- Performance Review
- Open findings review
- Assess placement into ROP cornerstone
- Allegation Review Process
- Discuss inspections after 103(g)





# Preparing for the Transition to Operations

*Plan your work  
&  
Work your plan*



# LESSONS LEARNED

## *Nurturing a Culture of Continuous Learning*





# Conclusion

The NRC staff affirmed the appropriateness of agency actions and the effectiveness of our oversight programs



# List of Acronyms

---

- 52.103(g) OR 103(g) – Title 10 of the *Code of Federal Regulations* section 52.103(g)
- AARM – Agency Action Review Meeting
- ACMUI – Advisory Committee on the Medical Uses of Isotopes
- AO – Abnormal Occurrence
- BIP – Baseline Inspection Program
- COVID-19 – Coronavirus Disease 2019
- cROP – Construction Reactor Oversight Process
- CY – Calendar Year
- FY – Fiscal Year
- IMC – Inspection Manual Chapter
- IMPEP – Integrated Materials Performance Evaluation Program
- IP – Inspection Procedure
- ITAAC – Inspections, Tests, Analyses, and Acceptance Criteria
- NMSS – Office of Nuclear Material Safety and Safeguards
- NRC – U.S. Nuclear Regulatory Commission
- NRR – Office of Nuclear Reactor Regulation
- NSIR – Office of Nuclear Security and Incident Response
- OE – Office of Enforcement
- OIG – Office of the Inspector General
- ROP – Reactor Oversight Process
- SDP – Significance Determination Process
- VLSSIR - Very Low Safety Significance Issue Resolution
- VRG – Vogtle Readiness Group
- WBL – Web-Based Licensing
- WIR – Waste Incidental to Reprocessing