
Public Meeting with the Nuclear Energy Institute Regulatory Issues Task Force

April 23, 2021

| Time | Topic | Speaker |
|---------------------|---|-----------------------|
| 9:00 am – 9:10 am | Introductions/Opening remarks | NRC/NEI |
| 9:10 am – 9:30 am | EMBARK Venture Studio activities | NRC |
| 9:30 am – 10:00 am | Licensing actions/review of metrics | NRC/NEI |
| 10:00 am – 10:10 am | Efficiencies of VLSSIR/RIPE processes | NRC |
| 10:10 am – 10:20 am | NUREG-1409 update | NRC |
| 10:20 am – 10:35 am | Break | |
| 10:35 am – 10:50 am | Retroactive Review of Administrative Requirements | NRC |
| 10:50 am – 11:00 am | Potential generic issues - PRE-GI-018 HEAF | NRC |
| 11:00 am – 11:10 am | Endorsement of ASME NML-1-2019, “Rules for the movement of loads using overhead handling equipment in nuclear facilities” | NRC |
| 11:10 am – 11:20 am | 10 CFR 50.55a 2-year update and timeline | NRC |
| 11:20 am – 11:30 am | Industry operability lessons learned | NEI/NRC |
| 11:30 am – 11:40 am | SRP modernization project | NRC |
| 11:40 am – 11:55 am | Opportunity for public comments | Members of the Public |
| 11:55 am – 12:00 pm | Wrap up/Action items/Closing remarks | NRC/NEI |
| 12:00 pm | Adjourn | |

Introductions and Opening Remarks

EMBARK

VENTURE  STUDIO

Jeremy Groom
Managing Director

WEB- BASED RELIEF REQUESTS

Launched April 5th

<https://wrr.nrc-gateway.gov/>

Public Information Session

May 6th from 10:30-11:30 AM

Addressing User Feedback

Web-BasedReliefRequests.Resource@nrc.gov

MAP-X TIMELINE

- April 2021 – Enhanced Web-Based Relief Requests (WRR) – LAUNCHED!
- Present – Fall 2021 – Event Notification Development and Deployment*
- Fall 2021 – Spring 2022 – Module 2 Development and Deployment*

*Estimated schedule subject to change



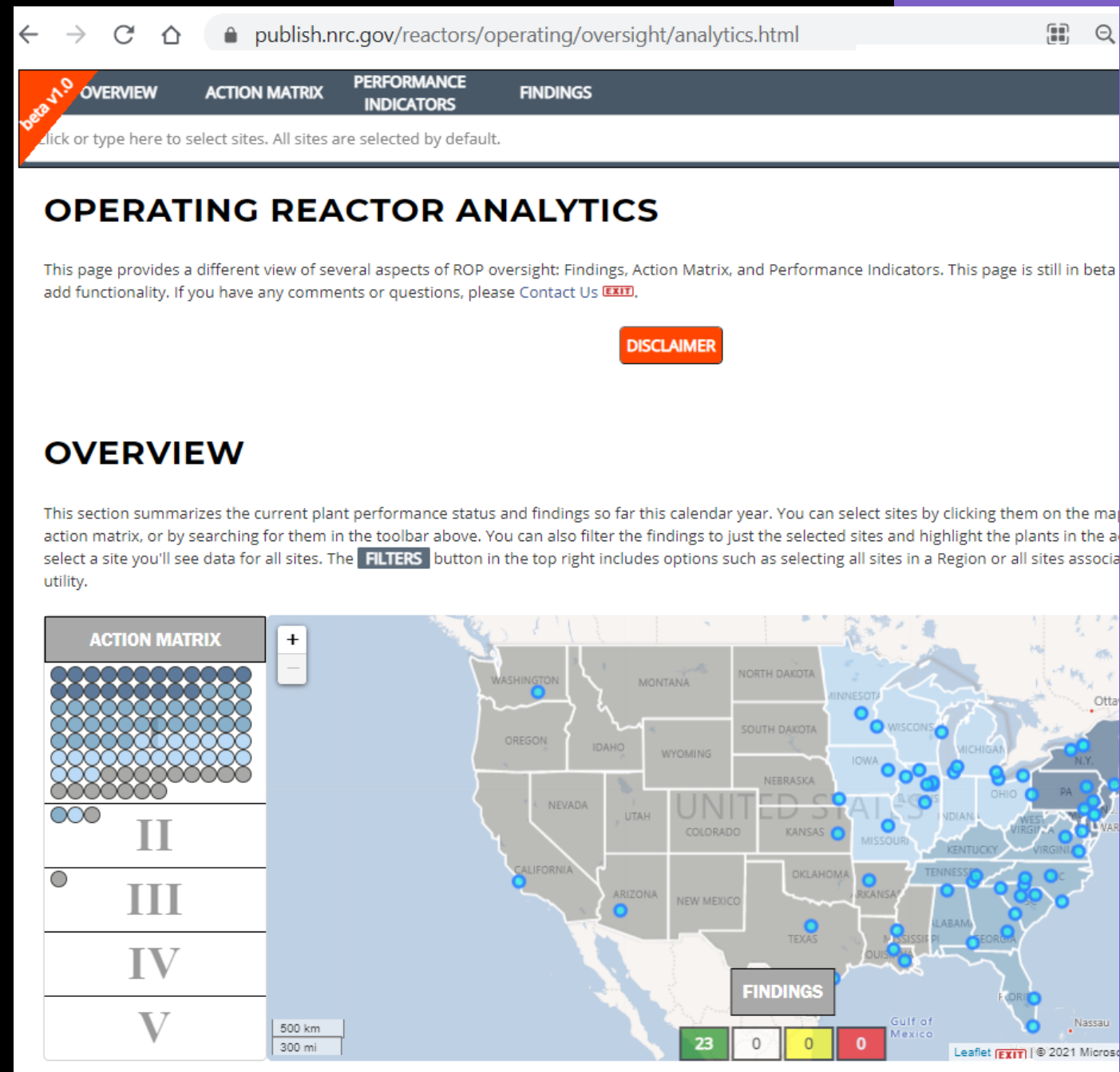
MAP-X NEXT STEPS

- Continue gathering internal and external feedback
- Identify challenges
- Continue quarterly public meetings
- Identify users
 - User Acceptance Testing
 - Event Notification Submitters



ROP Analytics Webpage (Coming Soon!)

- ROP information in a user-friendly format to explore or download for analysis
- Public comments and suggestions
- Future development
 - Cross Cutting Issues
 - Traditional Enforcement Findings
 - Findings by IP
 - Action Matrix Details



Licensing actions/Review of metrics COVID-19 Actions Workload Management

April 23, 2021

COVID-19 Related Significant Activities/Accomplishments

- Continued Prompt Actions in Response to COVID-19 Public Health Emergency (PHE)
- Collective Contributions Across the Agency Enabled Mission Success
- Engagement on Regulatory Requirements that Posed Challenges and Communications with Industry were Effective

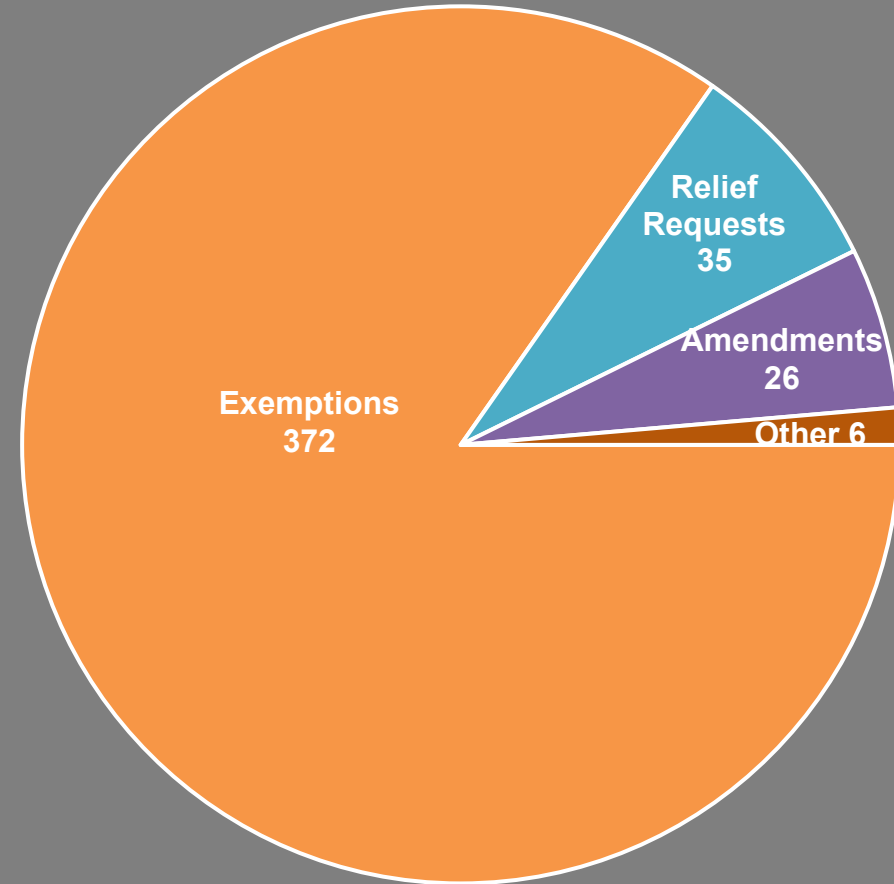
COVID-19 Actions

- Part 26 Work Hours
- Part 50 Fire Protection
- Owner Activity Reports (relief requests)
- Part 55 Operators Licenses
- Part 73 Security Training
- Part 20 Respiratory Requirements
- Part 50 EP Biennial Exercise

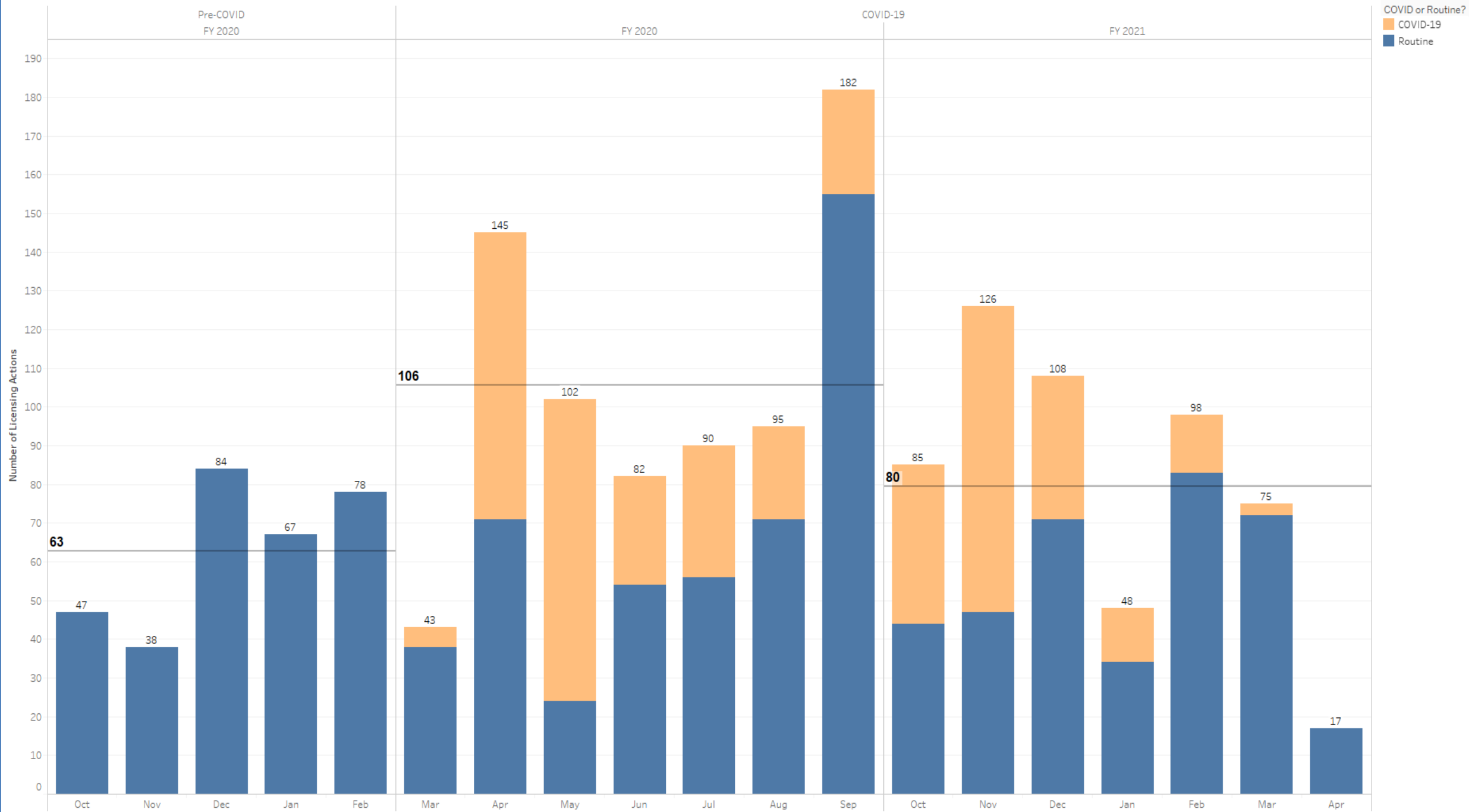
Other Requests Processed

- License Amendments
- Part 50.55a relief/alternative
- Part 50 Quality Assurance Programs
- Topical Reports – Audit Frequencies

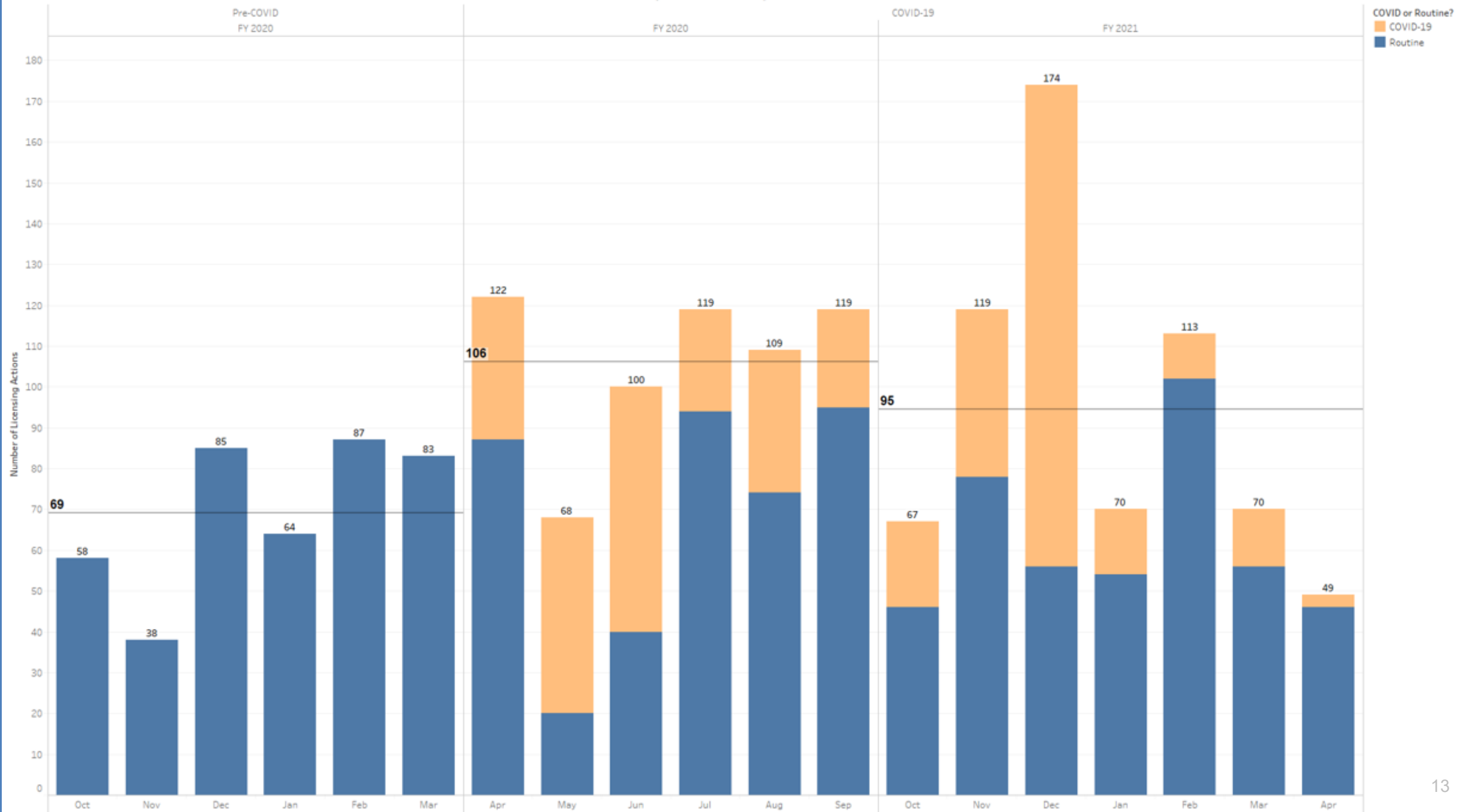
Completed COVID-19 Actions (as of April 16, 2021)



Submitted Actions (Routine vs COVID-19)



Completed Actions (Routine vs COVID-19)



COVID-19 – What is Next?

- Licensing Needs Appear More Normalized (Issues Can be Handled Case-by-Case)
 - Minimal impact on spring outages (licensing perspective)
 - Steam Generator Inspections deferred to fall appear on track
- Continue Evaluation of and Engagement on Regulatory Requirements that Pose Challenges
- Implementing efficiencies and flexibilities developed during COVID-19

Workload Management Enhancements

- Working to expand on-line access through MAP-X and WRR
- New and Revised Performance Measures
 - Nuclear Energy Innovation and Modernization Act (NEIMA) and its impact
 - Outcomes and Key Results (OKR)
- Enhanced Analytics Tools
 - Increased access to historical information (e.g., level of effort and schedule)
 - Identify challenges and pinch points
- Integrated Workload Management
 - Consistent approach for all NRR licensing programs

Continued Performance Gains

FY2021 compared to FY2020

Performance continues to improve in almost all areas in FY2021

- Increased number of completed actions:
 - 48% more completions in 1st half of FY2021 vs same period in FY2020
 - 63% of the total number completed in all of FY2020
- Decreased average completion time:
 - <7 months for all actions
 - 2 months for COVID-19 actions
 - 8.5 months for routine actions
 - Subject to consistent schedules and priorities from applicants
- Improved performance against all but one metric goal
 - Exception is 2-Year other licensing tasks (OLT) timeliness (discussed later)

Nuclear Energy Innovation and Modernization Act Implementation

- Nuclear Energy Innovation and Modernization Act (NEIMA)
 - Section 102(c) required NRC to develop Performance Metrics and Milestone Schedules for “requested activities of the Commission”
 - Section 3(10) defines “requested activities of the Commission,” which encompasses most NRC licensing actions
 - Requires reporting to the Commission and Congress for a delay in issuance that exceeds the established milestone schedule
 - Describe and explain the delay
 - Provide a plan for timely completion

Demonstrated Performance

High Level Measures

Agency Level Measures

- NEIMA – 100% Completed w/in the established Generic Milestone Schedule (2-years for most licensing actions)
 - Performance to date: 100%
- 2 Year Timeliness – 100% of Licensing Actions (LA) and Other Licensing Tasks (OLT) Completed w/in 2 years
 - Performance to date: LA – 100%, OLT – 99% (missed Steam Generator Tube Inspection Report)

Office Level Measures

- 1-Year Timeliness – 90% of LAs and OLTs Completed within 1 year
 - Performance To date: 98% (Combined LA & OLT)
- 90% of licensing actions completed have actual hours within 125% of the estimated hours communicated to the applicant
 - Performance to date: 99%

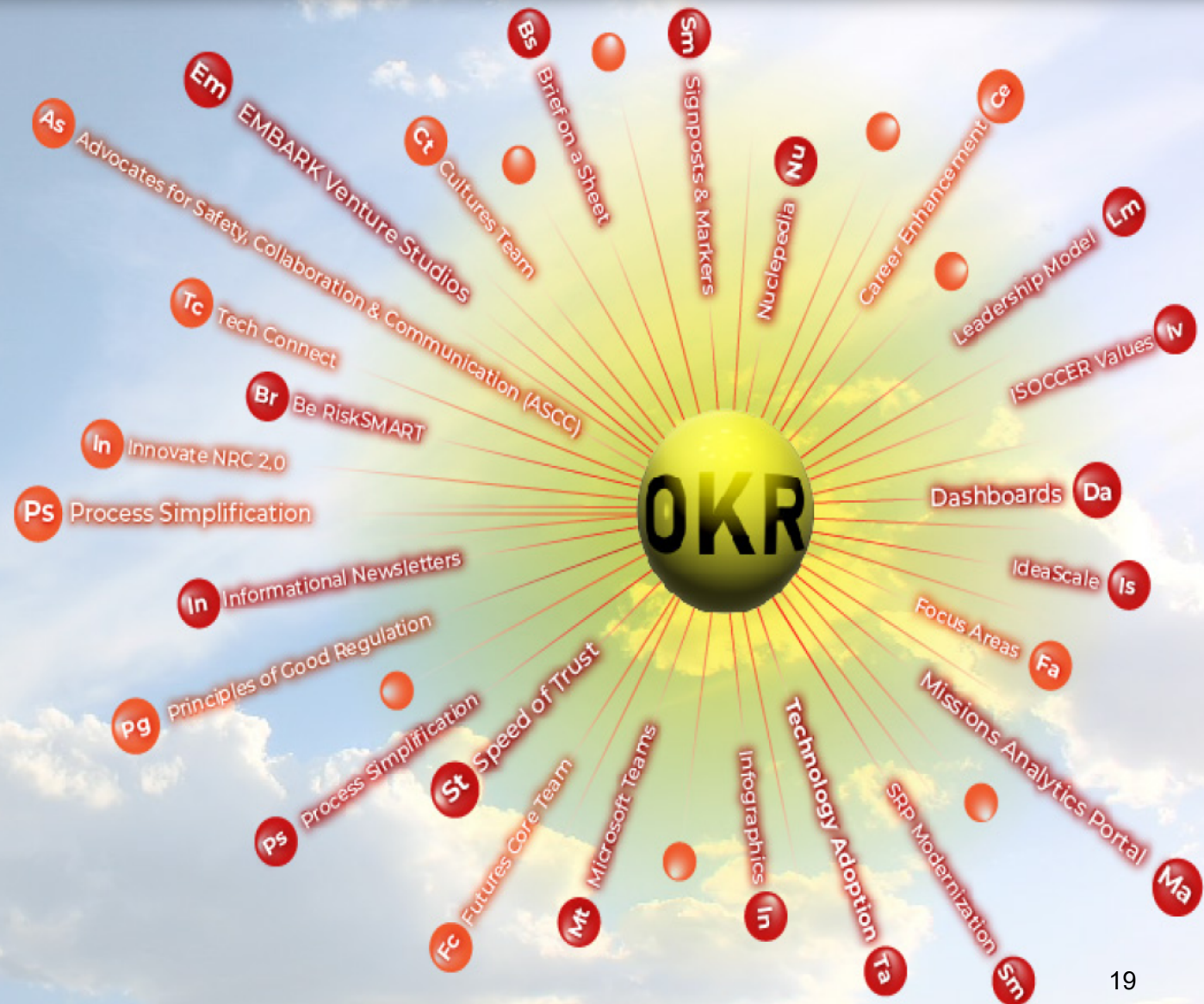
Elements of an OKR

WHAT? **Objectives** should be ambitious, significant, inspirational, yet maybe make us feel a tad uncomfortable.

Key Results should be quantifiable, specific, timely, realistic yet aggressive.

WHY? OKRs allow us to set challenging goals with measurable results that can be used to track progress, create alignment, encourage engagement, and improve our organization.

HOW? We can obtain our goals by utilizing all the initiatives and tools we have available!



New OKR Examples

- **OBJECTIVE:** Improve accuracy of resource estimates and information provided to promote increased stakeholder confidence in the regulatory process and support appropriate resource allocation (Effective 1/1/2021)
- **KEY RESULT:** 75% of licensing actions completed have actual hours +/- 25% of the estimated hours communicated to the licensee. Aggressive goal to progressively increase performance to 75% by the end of FY2021:
 - Performance: 39% within +/- 25% in 1st Quarter
- **OBJECTIVE:** Increase the use of traditional and analytical data tools to promote continued improvement in the quality of licensing application reviews (Effective 1/1/2021)
- **KEY RESULT:** Tracking the percent of acceptance reviews resulting in a supplement; Identifying and addressing one perceived challenge or improvement per quarter:
 - Addressing challenge of delayed Steam Generator Tube Inspection Reports
 - Percent of acceptance reviews resulting in a supplement = 4% (14 of 374)



Questions?

Resources

- Generic Milestone Schedules of Requested Activities of the Commission
<https://www.nrc.gov/about-nrc/generic-schedules.html>
- Nuclear Innovation and Modernization Act
<https://www.congress.gov/115/plaws/publ439/PLAW-115publ439.pdf>
- NRC Operating Reactor Performance Dashboard
<https://www.nrc.gov/reactors/operating/nrc-performance-dashboard.html>
- Agencywide Transformation Performance Measures (discusses development of OKRs)
<https://www.nrc.gov/docs/ML2014/ML20149K586.pdf>

Back-up Slide

Large Submittals

(TSTF-582, TSTF-505, 10 CFR 50.69)

- Requests for TSTF-582, “Reactor Pressure Vessel Water Inventory Control Enhancements”
 - Up to 22 submittals. Most expected to request a 6-month completion times
 - 9 completed in FY 2021: All in less than 6 months from acceptance
 - 4 under review
- Requests to Adopt TSTF-505, “Provide Risk-Informed Extended Completion Times”
 - 2 completed in FY 2021: Within estimated hours; one ahead of and one a month after the estimated schedule
 - 3 new submittals under acceptance review
 - 5 expected to complete in next three months
- Requests to Implement 10 CFR 50.69, “Risk-informed categorization and treatment of structures, systems and components”
 - 2 completed; All close to or below the estimated schedule and estimated hours
 - 2 new submittals; Estimates similar to other recent submittals
 - 3 expected to complete in next three months

Efficiencies of Very Low Safety Significance Issue Resolution (VLSSIR)/ Risk-informed Process for Evaluations (RIPE) Processes

Very Low Safety Significance Issue Resolution (VLSSIR) Process

- Effectiveness Review of VLSSIR Process execution in CY2020 was completed on March 2, 2021 (ML21070A334)
 - Determined that the VLSSIR process is meeting the goals and objectives outlined in the February 5, 2020, memorandum from the LSSIR working group to the Director, NRR.
 - VLSSIR process has helped reduce the number of unresolved items that the NRC is tracking with only 12 items appearing in the RPS database as of 2/10/21.
 - Identified an area where procedural guidance may be enhanced to help facilitate the processing of issues where a Detailed Risk Evaluation (DRE) is required.
 - Seven issues were closed using the VLSSIR process in CY 2020:

Very Low Safety Significance Issue Resolution (VLSSIR) Process

| Reactor Site | Title |
|--------------------------------|--|
| Arkansas Nuclear One Station | Technical Specifications for Maximum Temperature of Service Water System When Aligned to Lake Dardanelle |
| Donald Cook Nuclear Plant | Reactor Coolant Pump Lateral Support Bumper Gap Design Values |
| Fermi Power Plant | Application of Technical Specification Limiting Condition for Operation 3.0.9, Barriers to the Mechanical Draft Cooling Tower Fan Brake System |
| Joseph M. Farley Nuclear Plant | Capability of Emergency Diesel Building (EDB) Ventilation System to Withstand the Effects of a Tornado |
| H.B. Robinson Unit 2 | Potential Passive Single Failure Design Control Issue |
| V.C. Summer | Failure to Implement Corrective Actions to Restore Compliance with Previous NRC - Identified Green NCV 05000395/2005007-01 |
| Wolf Creek Generating Station | Atmospheric Relief Valve and Main Steam Safety Valve Tornado Missile Vulnerabilities Result in Unanalyzed Condition |

Risk-informed Process for Evaluations (RIPE)

- Adoption of RIPE was recommended and approved by memos dated January 5, 2021 (ML20261H428) and January 7, 2021 (ML21006A324), respectively.
 - Enclosure 1 - Guidelines for Characterizing the Safety Impact of Issues (ML20261H462)
 - Enclosure 2 - Temporary Staff Guidance TSG-DORL-2021-01 (ML20261H473)
- NRC is working with industry to allow use of TSTF-425 applications in lieu of TSTF-505.
- NRC plans to conduct a lessons-learned review of RIPE after an initial implementation period and make enhancements.
- Open to industry proposals to further expand RIPE to issues that aren't readily assessed through PRA methods.
 - Need to engage broader stakeholder groups (e.g., in the case of security and EP)
 - Potential benefit to exercising RIPE and addressing any lessons-learned before expanding further

NUREG-1409, Rev. 1 Update

Background

- SRM-SECY-18-0049 (May 29, 2019)
 - Issue Management Directive (MD) 8.4
- SRM-SECY-18-0042 (July 26, 2019)
 - Conform NUREG-1409 to MD 8.4
 - Provide NUREG-1409, Rev. 1 to Commission for information 10 days before issuance
- Draft NUREG-1409, Rev. 1 issued for comment
 - March 2020
 - Category 3 public meeting in April 2020
 - Comments submitted late July 2020

Public Comments on Draft NUREG-1409, Rev. 1

- Approximately 250 comments from the public, industry, and NRC staff
- Significant comments
 - Reorganize content
 - Increase communication between NRC and licensees
 - Clarify stakeholder participation
 - Revise forward fitting terminology and examples
 - Enable MD 8.4 appeals of proposed actions

Changes to Draft NUREG-1409, Rev. 1

- Chapter 1 – Introduction
 - Terminology
 - Relocated guidance on issue finality, communications, and ISFSIs
 - Community of Practice Charter discussion
- Chapter 2 – Backfitting and Issue Finality
 - Application of screening questions
 - Relocated guidance

Changes to Draft NUREG-1409, Rev. 1

- Chapter 3 – Forward Fitting
 - Screening
 - Justification:
 - Direct nexus
 - Essential
 - Cost considerations
 - Scenarios

Changes to Draft NUREG-1409, Rev. 1

- Chapter 4 – Appeals
 - Submitting and processing appeals
 - Appealing proposed and issued actions
- Chapter 5 – Various NRC Processes
 - Reorganized based on grouping similar topics
 - Licensing
 - Generic
 - Inspection
 - Enforcement
 - Added and revised topics
- Conforming changes to Appendices

SECY-21-0037 Contents

- SECY Information Paper (now a vote paper)
 - Summarizes changes to draft NUREG-1409, Rev. 1
 - No new policy issues presented
- Enclosure 1 – Final NUREG-1409, Rev. 1
- Enclosure 2 – NRC response to comments
- Enclosure 3 – RLSO of draft NUREG-1409
- Enclosure 4 – *Federal Register* notice

Next Steps

- Awaiting Commission SRM on SECY-21-0037
- After NUREG-1409, Rev. 1 is published:
 - Update office-level procedures (office instructions, ROP documents, enforcement manual, etc.)
 - Develop initial and refresher training
 - Update qualification programs

BREAK



NEI's Regulatory Issues Task Force (RITF) Meeting April 23, 2021

Topics:

- **RROAR Overview**
- **Next Steps**



RETROSPECTIVE REVIEW OF ADMINISTRATIVE REQUIREMENTS (RROAR) BY THE NUMBERS

5

Commission-approved evaluation criteria and NRC staff programmatic experience (80 FR 6103)

99

Comments received from the public and NRC staff

14

Affected 10 CFR Parts – 2, 20, 21, 26, 37, 50, 52, 55, 70, 71, 72, 74, 100, and 160

5

NRC Offices Impacted

4

Public meetings to discuss RROAR

17

NRC Divisions Involved

~40

NRC staff participated in the review working from standardized review plan

4

Outcomes for comments – 1) new rulemaking effort, 2) existing rulemaking effort, 3) administrative correction rule, and 4) non-rulemaking



Next Steps →



**Information
SECY paper, with
the RROAR
Comment
Evaluation
Summary
enclosure
(Late April, 2021)**



**Further stakeholder engagements
during the rulemaking process**



**Rulemaking plan(s)
(Late 2021)**



High Energy Arcing Faults Involving Aluminum Components

NEI Regulatory Issues Task Force Public Meeting
Nicholas Melly, RES
April 23, 2021

Proposed Path to Resolution of Pre GI-0018 on HEAF

- NRC staff developing approach to resolve the pre generic issue on HEAF involving aluminum without additional NRC sponsored testing
- Approach will build off NRC/EPRI Working Group project plan, including the EPRI survey, to determine the extent of aluminum in plants and plant-specific electrical configurations
- Initial steps will include filling in gaps identified in the survey
- The NRC/EPRI Working group is developing specific Zones of Influence (ZOI) and PRA methods to address the hazard posed by aluminum HEAFs
- Anticipate public meeting no later than the next quarter of FY21

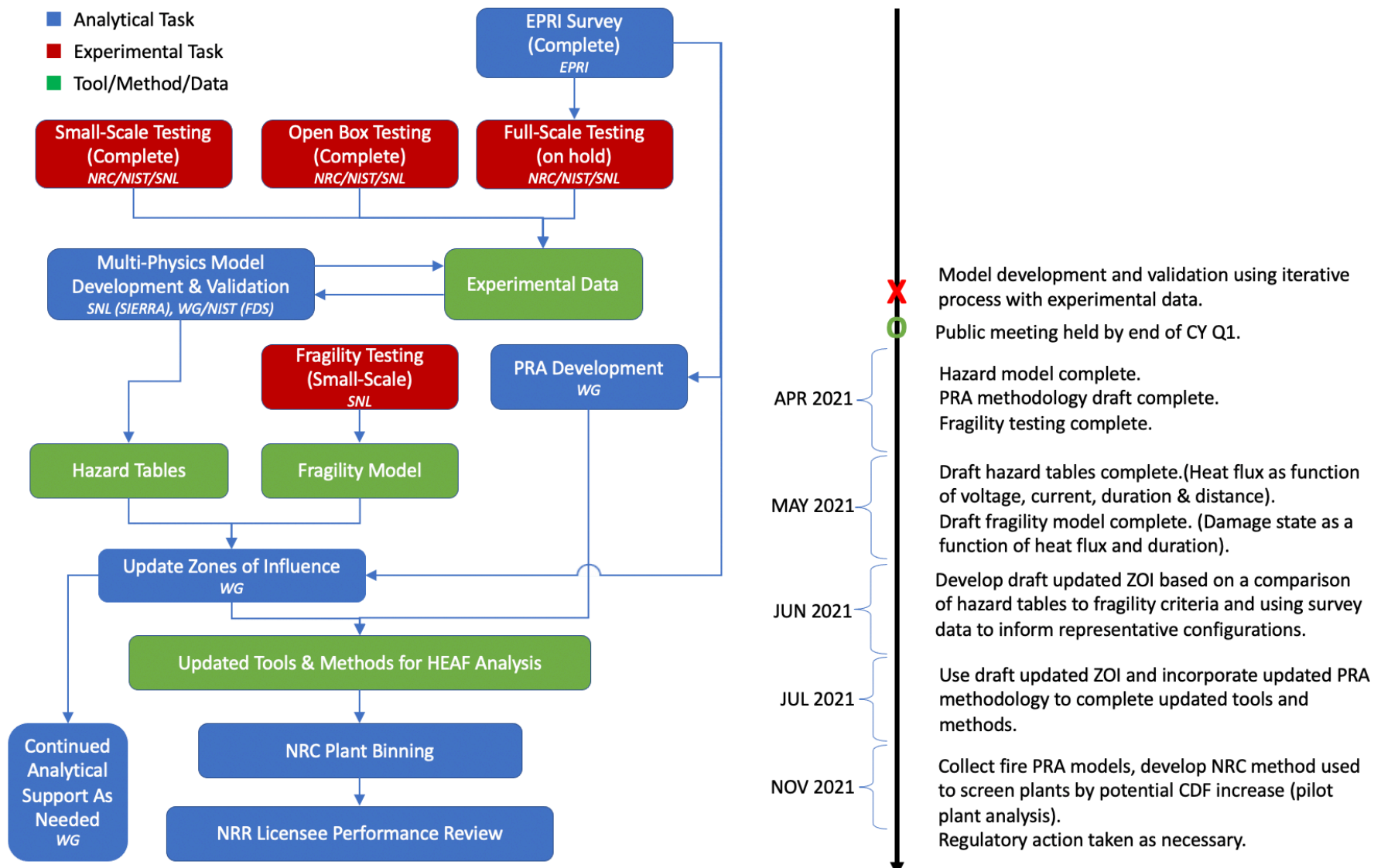
Proposed Path to Resolution of Pre GI-0018 on HEAF

- NRC staff developing approach to resolve the pre generic issue on HEAF involving aluminum without additional NRC sponsored large scale testing
- Approach will build off NRC/EPRI Working Group project plan, including the EPRI survey and operating experience to determine the potential risk of aluminum HEAF based on plant-specific electrical configurations
- The NRC/EPRI Working group is developing specific Zone of Influences (ZOI) and PRA methods to address the hazards posed by HEAFs
- Two Public Meetings April 6, 2021
 - Morning NRC/EPRI Working Group Progress
 - Afternoon NRC discussion Pre Generic Issue
- NRC Working group members addressing concerns operating experience has not been adequately incorporated
 - EPRI is publishing a white paper which will detail survey results, publicly available on the EPRI website, once released, by searching “3002020692”
 - New PRA methodology and ZOI insights both heavily incorporate OpEx and will be documented

Proposed Path to Resolution of Pre GI-0018 on HEAF

- NRC/EPRI HEAF working group will fill the EPRI survey gaps as follows:
 - Compile Draft Hazard Tables to estimate the Zone of Influences using currently available information (e.g., expert judgement, completed testing data, operating experience, modeling insights)
 - Develop representative PRA methods considering equipment categories, plant specific location and electrical configurations / lineups as documented in the EPRI survey
- NRC established a public web site to keep all stakeholders informed
 - <https://www.nrc.gov/about-nrc/regulatory/research/fire-research/heaf-research.html>
- No immediate actions for Industry stakeholders
- Following the ZOI completion the NRC will be evaluating applicability of pilot plants to complete the Pre GI Assessment phase

NRC/EPRI Working Group Project Schedule



American Society of Mechanical Engineers NML-1-2019, “Rules for the Movement of Loads Using Overhead Handling Equipment in Nuclear Facilities” Endorsement Status

**NEI REGULATORY ISSUES TASK FORCE PUBLIC MEETING
APRIL 23, 2021**



- **Regulatory Guide (RG) endorsement expected to enhance handling system use flexibility and reduce special lift device nondestructive examination and testing frequency consistent with risk insights**
- **Draft RG internal reviews commencing mid-November**
- **RG issuance for stakeholder comments 2nd Quarter FY21; final RG in 4th Quarter FY21**



10 CFR 50.55(a) 2-year update and timeline



Industry operability lessons learned

NEI

SRP Modernization Project

SRP Modernization (SRPMod) Effort

Status
April 23, 2021



SRPMod Team

Caroline Carusone, NRR/DORL Deputy Division Director
Phil McKenna, Acting NRR/DORL Deputy Division Director
Dennis Morey, NRR/DORL/LLPB Branch Chief
Jason Paige, SRP Modernization Task Lead
Mark Notich, Sr. Project Manager
Kate Lenning – Project Manager

SRPMod Purpose

- **Focus on What's Important to Safety**
 - Guidance focused on requirements
- **Clear, Concise Guidance for Completing Reviews**
 - Clarity on application details
- **Improve Quality of NRC Review Products**
 - Requests for Additional Information
 - Safety Evaluations
- **Consistency on Using Risk-Insights and Engineering Judgement**
 - Capture Best Practices
- **SRP Issue vs. Training Issue**
 - Not every section will need extensive revising



SRPMod Objectives

Reinforce

Reinforce Expectations for Reasonable Assurance of Adequate Protection

- Rebranding “Introduction” to “General Review Principles”
- “General Review Principles” will provide guidance on completing reviews

Focus

Focus on Regulatory Requirements

- Reformatting sections
- Align specific acceptance criteria and findings to the applicable requirements
- Remove extraneous information
- Incorporate ISGs, BTPs information

Empower

Empower the Staff to Consistently Use Risk-Insights and Engineering Judgment

- Reference PRA Policy Statement and SRM-SECY-17-0112
- Integrate risk guidance: LIC-206 and Be riskSMART
- Reference AEA on the use of engineering judgement

Schedule: SRPMod Performance Goals

- **SRPMod Performance Goals are Division-Driven!**
 - Division-specific goals based on available resources
- **Divisions Select SRP Sections to Modernize to Meet Goals**
 - Based on division needs
- **Performance Goals Track Number of Sections Modernized within Next 2-years**
- **Schedule to Issue One SRP Section: 50 weeks**
 - Draft Modernized Section: 8 weeks
 - Issue Draft Section (Public Comment): 18 weeks
 - Address Public Comments: 4 weeks
 - Issue Final SRP Section: 20 weeks



NRR Goal: 173 Modernized Sections in 2-years!

Priority for Modernizing Chapters

Chapter 2

Chapter 3

Chapter 5

Chapter 6

Chapter 7

Chapter 9

Chapter 14

*Prioritization based on division needs and available resources for next 2-years

**Divisions will select sections to modernize

Status: Next Steps

- **SRPMod Team Hosted 3/31 Public Meeting**
 - Incorporated feedback into SRPMod process
- **SRPMod Officially Kicked-Off in April 2021!**
 - Divisions selecting SRP sections to modernize
- **Draft SRP Sections Issued for Public Comment**
 - Public Comment requested via *Federal Register* Notice
 - First batch expected Fall 2021
 - Draft SRP Sections will be piloted before issuance of final



Questions?



Opportunity for Public Comment

NEI and NRC Management Closing Remarks

List of Abbreviations

| | | |
|--------------|---|---|
| AEA | – | Atomic Energy Act of 1954 |
| BTP | – | Branch Technical Position |
| EPRI | – | Electric Power Research Institute |
| ISG | – | Interim Staff Guidance |
| LSSIR | - | Low Safety Significance Issue Resolution |
| NEI | – | Nuclear Energy Institute |
| NEIMA | - | Nuclear Energy Innovation and Modernization Act |
| NRC | – | U. S. Nuclear Regulatory Commission |
| NRR | – | Office of Nuclear Reactor Regulation |
| PRA | – | Probabilistic Risk Assessment |
| RLSO | – | Red line strike out |
| ROP | – | Reactor Oversight Process |
| RPS | – | Reactor Program System |
| SRP | – | NUREG-0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants” |