Lessons Learned from Part 52 Implementation

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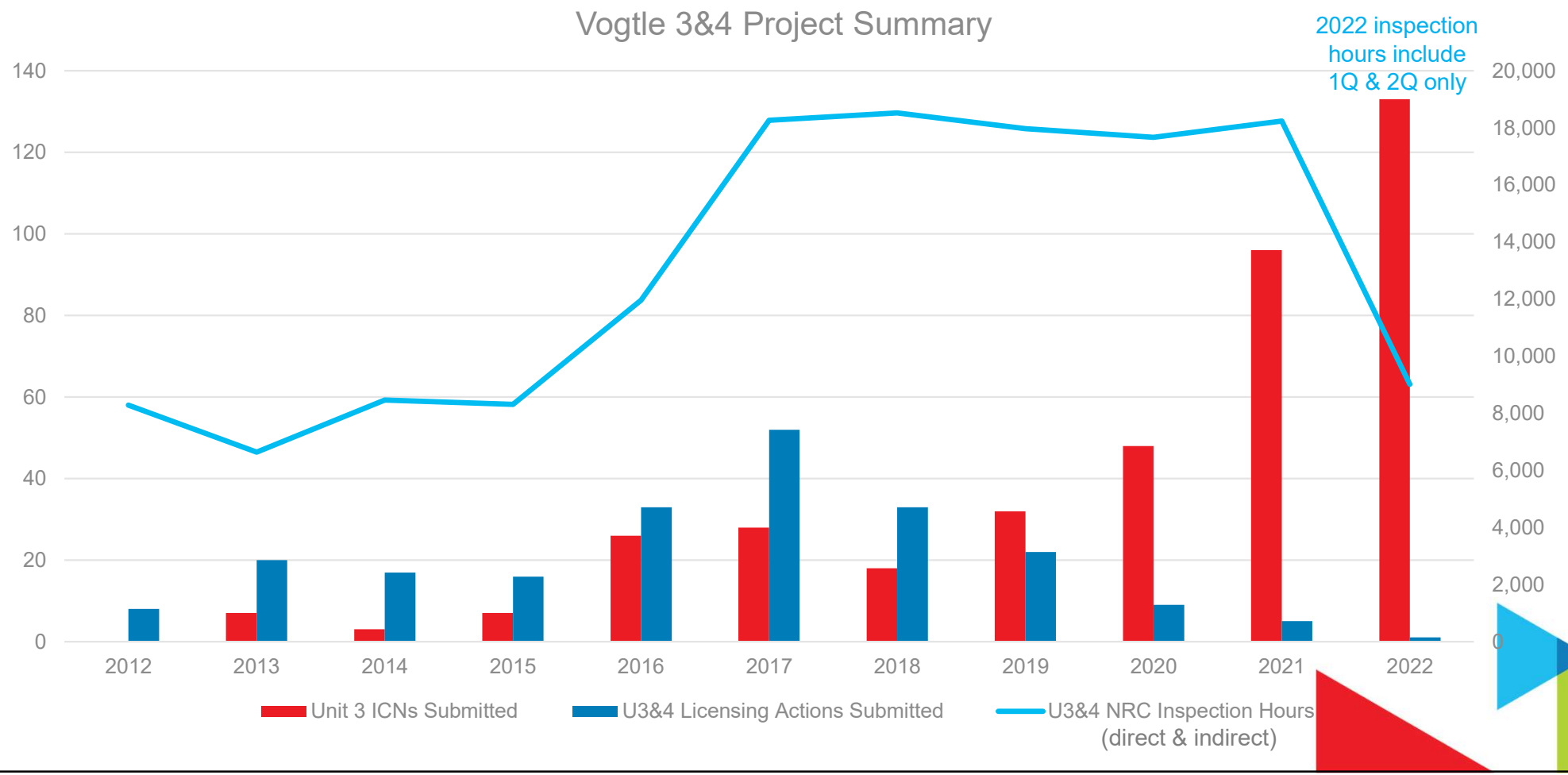
Outline

- Project Overview
- Licensing Observations
- Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Observations
- Inspections Observations
- Top 3 Recommendations
- NRC Feedback Question

Project Overview

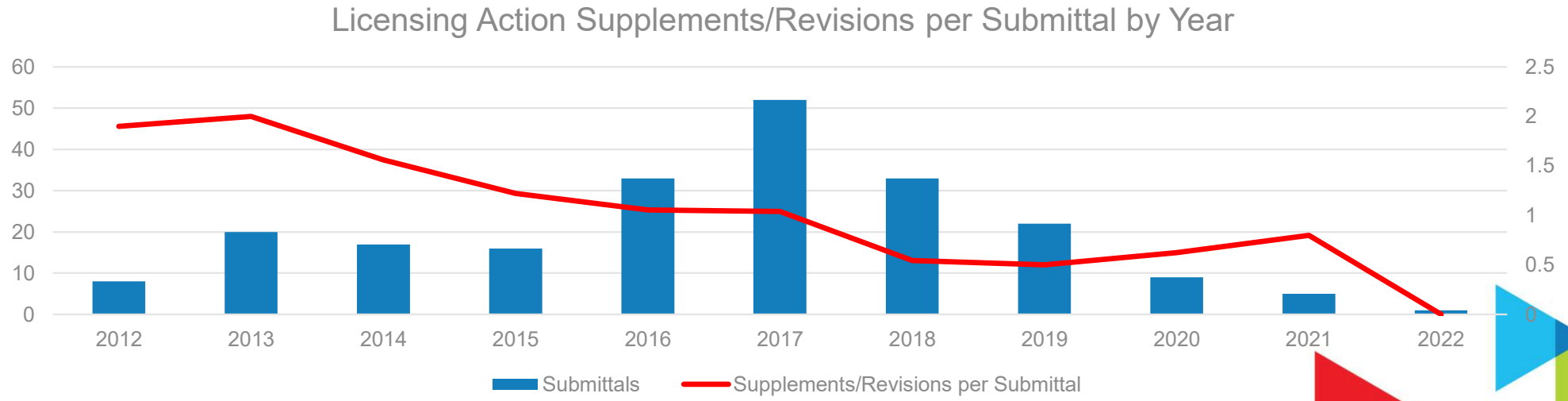
- 2/10/2012—Combined License (COL) was issued
  – 875 ITAAC for Unit 3 at COL issuance
- 2012-2022—Total of 215 licensing actions (i.e., license amendment requests (LARs), exemptions, and/or alternative requests) were approved for Vogtle Units 3 & 4
  – Included changes to ITAAC that brought Unit 3 total down to 398 ITAAC
- 2012-2022—Total of 143,000 inspection hours for Vogtle Units 3 and 4 through 2Q22, including both direct and indirect hours
- 7/29/2022—ITAAC All Complete letter was submitted for Vogtle Unit 3
- 8/3/2022—NRC issued 52.103(g) finding for Vogtle Unit 3

Project Overview



Licensing Overview

- Summary of NRC review data
  - Average LAR review time (i.e., from submittal to approval) = 223 days
  - Median LAR review time = 184 days
  - Minimum LAR review time = 52 days
    - » LAR-21-001 “Clarification of ITAAC Regarding Invessel Components”
  - An average of 1.02 supplements submitted per Licensing Action 2012-2022
    - » 2018-2021 average of 0.62 supplements per Licensing Action



Licensing Observations

- Dedicated office support (e.g, NRO/VPO) facilitates clear communication and understanding in a quickly changing environment
- Aligning on licensing action complexity aided in binning and prioritizing requests
- Early technical exchanges and pre-submittal meetings are helpful—particularly for high complexity licensing actions

Licensing Observations

- Licensing Actions with minimal safety significance (e.g., Tier 2*, Tier 1 administrative and consistency changes)
- While lessons learned have been captured for future licensees (e.g., shaping NRC policy regarding what should/should not be in ITAAC), these lessons should also be applied to the impacted licensee
- Tabletop each step of first of a kind actions (e.g., operator licensing)

Licensing Observations

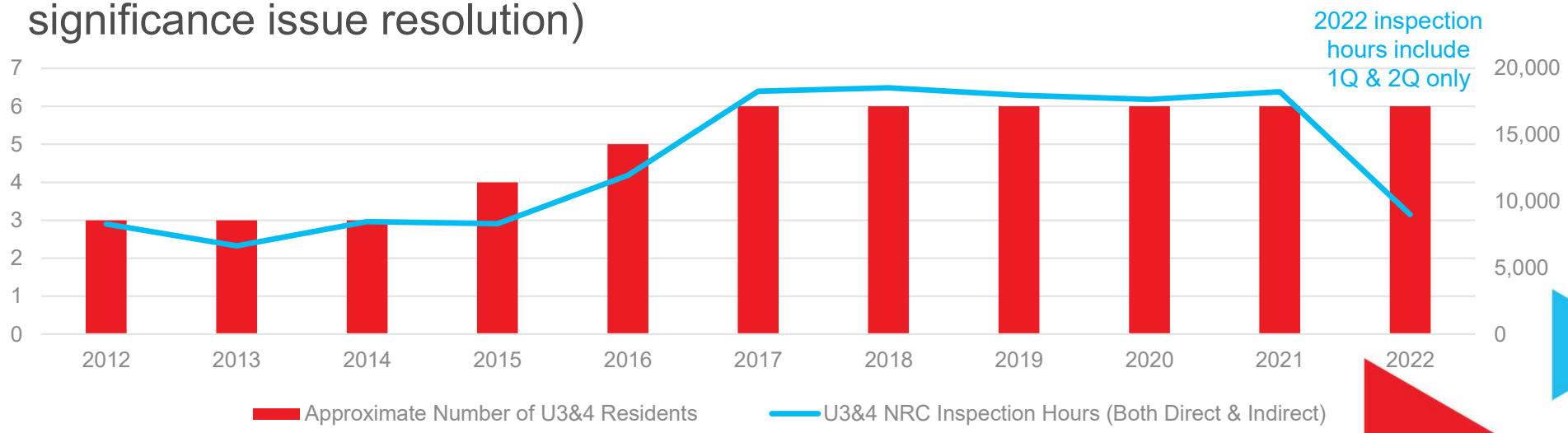
- Assess reporting requirements
  - 52.99(a) ICN schedule requirement can be managed outside of regulation
  - SECY-05-0197 for license condition requiring program schedule submittals can be managed outside of license requirements
  - 50.55(e) is difficult to implement due to lack of clear definition/guidance on what constitutes programmatic breakdown
- Evaluate applicability milestones in various regulations to align with the appropriate risk profile change at the site (e.g. implementation at 52.10(g) vs initial loading of fuel, initial criticality, commercial operations). Consistent implementation criteria should be used across all regulations.

ITAAC Observations

- Establishing right ITAAC during design certification/license application process is critical
  - Redundant and iterative ITAAC are not needed
  - ITAAC that directly duplicate regulation (i.e., near identical to regulation without any site or design specific information) provide no additional assurance
  - Keep ITAAC focused on safety significant structures, systems, and components
  - Consider ITAAC implementation when writing ITAAC language
    - » Don't include unnecessary detail
    - » Consider endpoint for programmatic/ongoing requirements
- Early completion of Uncompleted ITAAC Notifications (UINs) was very helpful
  - Identification of work orders/test procedures to execute ITAAC
  - Early NRC inspections, and
  - Identification of any needed licensing changes
- Having dedicated office support (e.g, NRO/VPO) provides central focal point for executing UIN/ICN reviews and inspection questions

Inspections Observations

- Having dedicated NRC inspection program organization is very helpful to aide inspection planning, scheduling, and execution
- Early inspection planning meetings and early inspections are necessary for programmatic type ITAAC that are executed over the life of the project (e.g., ASME, as-built reconciliation processes)
- Apply ROP lessons learned to the cROP in a timely manner (e.g., low safety significance issue resolution)



Inspections Observations

- Inspector flexibility to inspect ITAAC or non-ITAAC common activities could minimize the difficulty in scheduling and coordinating specific inspections in a rapidly changing construction environment
- Suggest forecasting in-direct hours, along with direct hours, to aide budgeting
- Facilitating the significance determination process (SDP) utilizes resources that could be focused on more risk-significant activities
  - At least 7 inspection issues in the last 3 years that expended additional licensee/contractor analyses/work beyond what plant programs would warrant (e.g., assessment of use-as-is conditions even when non-conformances will be corrected)
  - Licensee identified findings are treated the same in cROP and ROP—even though public is never exposed to any risk under cROP, as plant programs ensure non-conforming conditions are addressed prior to operation

Top 3 Recommendations

- Develop an expedited and more efficient process for reviewing licensing actions with minimal safety significance
- Update cROP to reflect latest risk insights and incorporate lessons learned
  - Utilize low safety significance issue resolution (LSSIR)
  - Limit significance of licensee identified findings
  - Revise SDP to ensure resources are focused on most safety significant issues
- Create a new mechanism to enable the agency to pilot new approaches or processes for the first licensee as unintended challenges are identified