# STATUS REPORT ON THE LICENSING ACTIVITIES AND REGULATORY DUTIES OF THE U.S. NUCLEAR REGULATORY COMMISSION

For the Reporting Period of October 1 through December 31, 2019

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#### **Enclosure 1 - High Level Summary**



<sup>&</sup>lt;sup>1</sup> Timeliness data are not available for Fuel Facilities in FY 2018 Q2 and FY 2018 Q3.



1-4 NRC FY 2020 Budget Authority - Dec. 31, 2019 (Dollars in Thousands)				
Fund Sources	FY 2020 Budget <sup>2</sup>	Percent Obligated	Percent Expended	
Advanced Reactor	\$10,300	19%	18%	
Commission Funds	\$11,125	13%	13%	
Fee-Based Funds	\$846,142	17%	16%	
General Funds	\$1,303	6%	6%	
International Activities	\$16,080	15%	15%	
Integrated University				
Program	\$15,000	0%	0%	
Official Representation	\$25	2%	2%	
Total	\$899,975	17%	16%	
NRC Control Points	FY 2020 Budget <sup>1</sup>	Percent Obligated	Percent Expended	
Nuclear Reactor Safety	\$459,366	19%	18%	
Nuclear Materials and				
Waste Safety	\$106,204	18%	17%	
Decommissioning and				
Low-Level Waste	\$24,831	17%	17%	
Corporate Support	\$294,574	13%	12%	
Integrated University				
Program	\$15,000	0%	0%	
Total	\$899,975	17%	16%	

Total Year to Date (YTD)	Projected End of Year	Quarter 1	Quarter 1	YTD	YTD
FTE Utilization	FTE Total Utilization	Hiring	Attrition	Hiring	Attrition
638.3	2789.0	19	34	19	34

<sup>&</sup>lt;sup>2</sup> The agency is operating under the *Further Consolidated Appropriations Act*, 2020. The FY 2020 budget is based on the FY 2019 total annualized rate (i.e. FY 2019 Enacted levels).



Total 10 CFR Part 170 Fees Billed (Dollars in Millions)				
FY 2018	FY 2019	FY 2020 (Q1)		
\$266.0	\$245.3	\$62.0		

## Enclosure 2

Enclosure 2 provides the status of specific items of interest including a summary of the item, the activities planned and accomplished under each item within the quarter, and projected activities under each item for the next two quarters.

## 2-1 Transformation

The U.S. Nuclear Regulatory Commission's (NRC) transformation initiative encompasses a broad set of activities intended to advance the agency towards the vision of being a modern, risk-informed regulator. There are four focus areas: (1) recruiting, developing, and retaining a strong workforce, (2) improving decision-making through the acceptance of an appropriate level of risk, (3) establishing a culture that embraces innovation, and (4) better enabling staff to adopt new and existing IT resources. The NRC staff has launched seven initiatives that support these four focus areas:

- 1) Accepting Risk in Decisionmaking:<sup>3</sup> Developing a common understanding of what it means to accept risk, how it connects to the vision, and how risk insights can be applied to NRC activities.
- 2) Agency Desired Culture: Building into our culture a mindset that welcomes change while reinforcing appropriate behaviors and outcomes.

<sup>&</sup>lt;sup>3</sup> This activity will produce a framework that gives the staff confidence in incorporating risk considerations in decisionmaking without compromising the NRC's safety and security mission. The framework will inform technical and corporate decisions ranging from reactor safety to fee revenue activities. The purpose is to enhance safety and operational effectiveness by appropriately focusing resources on high-value mission priorities.

- 3) Career Enhancement: Clearly communicating opportunities to ensure that all staff understand the potential paths that will enable them to grow throughout their careers.
- 4) Innovation: Finalizing and implementing the new Innovate NRC 2.0 process and technology platform agencywide to create and sustain a culture of innovation.
- 5) Process Simplification: Simplifying and reinforcing our processes to achieve greater efficiency.
- 6) Signposts and Markers: Identifying key signposts and markers pertinent to anticipating future agency workload and adapting our decisionmaking processes to incorporate these indicators to ensure the agency is better prepared to adapt to a changing external landscape.
- 7) Technology Adoption: Enabling all staff to easily and efficiently complete their work with available technology and increasing the use of new and existing technology across the agency.

Activities Planned and Completed for the Reporting Period (Quarter (Q)1 Fiscal Year (FY) 2020)

Transformation Activities	Planned Completion Date	Completion Date
Brief the Commission on the staff's transformation activities (public meeting). <sup>4</sup>	10/29/19	10/29/19
Hold a Transformation Expo for staff to showcase the various change initiatives that are underway at the NRC.	10/30/19	10/30/19
Establish indicators to reflect future trends in the nuclear energy sector to support strategic foresight and decisionmaking. <sup>5</sup>	12/31/19	12/31/19
Complete preparations for launch of Innovate NRC 2.0, a new process and technology platform to facilitate innovative idea generation, tracking, and implementation.	12/31/19	12/31/19

Projected Activities for the Next Two Quarters (Q2 and Q3 FY 2020)

Projected Transformation Activities	Projected Completion Date
Complete the first session in a series of interactive staff learning sessions on the use of Microsoft Office 365 productivity tools that the agency recently acquired.	01/06/20
Launch "Be riskSMART" as a common, agencywide framework for the consideration of risk in decisionmaking across technical, corporate support, and legal mission portfolios.	01/17/20
Disseminate information about the transformation activities to stakeholders at the 2020 Regulatory Information Conference.	03/12/20

<sup>&</sup>lt;sup>4</sup> The Commission briefing on the staff's transformation activities can be viewed at <u>https://nrc.rev.vbrick.com/#/videos</u> /7776d94d-9cdc-4dd3-8c8b-59dc4d2a115f

<sup>&</sup>lt;sup>5</sup> The staff identified the indicators that it plans to monitor. The integration of these indicators into the decisionmaking processes is part of Phase 2 of the project, which is on a 6-month timeline that will start with a pilot.

Projected Transformation Activities	Projected Completion Date
Conduct a staff survey to identify elements of the agency culture that should be addressed to enhance the acceptance of transformation.	03/31/20
Launch the Innovate NRC 2.0 technology platform and begin agencywide training to facilitate innovation, such as anticipated crowdsourcing.	03/31/20
Synthesize information about staff training and human capital initiatives into a single user-friendly infographic to highlight opportunities for enhanced professional development.	04/15/20
Brief the Commission on the staff's transformation activities (public meeting).	05/18/20
Implement a new process to recognize staff who contribute innovative ideas for improving the work of the agency.	05/31/20
Develop first iteration of the initial nuclear energy sector indicators to pilot in decisionmaking processes, such as workforce planning and the agency environmental scan development.	06/30/20

## 2-2 Workforce Development and Management

The NRC implements a Strategic Workforce Planning (SWP) process to improve our efforts in developing and managing the NRC workforce and to balance near-term work with long-term staffing projections. This process projects the amount and type of work anticipated in the next 5 years and identifies the workforce needed to perform that work. By analyzing the current workforce and comparing it to future needs, skill gaps or surpluses can be identified. In the final step of the process, both short- and long-term strategies are developed to enable the agency to recruit, retain, and develop a skilled and diverse workforce with the competencies and agility to address both current and emerging needs and workload fluctuations.

## Activities Planned and Completed for the Reporting Period (Q1 FY 2020)

Workforce Development and Management Activities	Planned Completion Date	Completion Date
Extend offers to hire 25 entry-level engineers and scientists to develop a pipeline of talent to fill future positions based on results of SWP. The entry-level hires will be part of a cohort for the NRC's new training program, the Nuclear Regulatory Apprenticeship Network (NRAN), which will begin in June 2020.	12/31/19	12/27/19
Kick-off agencywide FY 2020 implementation of the SWP process by completing a long-term workload forecast. The results of the workload forecast will provide strategic insights on office/region needs and will identify potential changes to positions or the organization, as well as tactical insights on the necessary pace and direction of workforce changes.	12/06/19	12/06/19

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Projected Workforce Development and Management Activities	Projected Completion Date
Continue SWP agencywide implementation by developing a workforce demand and conducting a supply analysis of the current workforce. The information collected during these steps will support development of strategies to ensure the agency has the workforce it needs to achieve its mission now and in the future.	03/16/20
Onboard entry-level hires for NRC's new training program NRAN and begin 14 weeks of initial training in areas such as regulatory and technical fundamentals.	06/22/20
Continue SWP agencywide implementation by developing a workforce supply analysis and a prioritized list of workforce gaps and surpluses.	06/27/20

## 2-3 Accident Tolerant Fuel

The NRC is preparing for the anticipated licensing and use of Accident Tolerant Fuel (ATF) in U.S. commercial power reactors. In coordination with the Department of Energy (DOE), several fuel vendors have announced plans to develop and seek approval for various fuel designs with longer coping times during loss of cooling conditions. Preparing the agency to conduct complete and timely reviews of these advanced fuel designs may require: the expansion of the existing regulatory infrastructure; the development of additional analysis capabilities; and development of unique critical skills. To support these design reviews, the staff developed an ATF project plan (Agencywide Documents Access and Management System (ADAMS) Accession No. <u>ML18261A414</u>), which includes a vision for a new paradigm for ATF licensing. The ATF project plan presents the high-level strategy that the staff will follow to ensure that it is ready to receive ATF topical reports and licensing requests for technical review.

## Activities Planned and Completed for the Reporting Period (Q1 FY 2020)

ATF Activities	Planned Completion Date	Completion Date
Conduct a planning meeting with Framatome on increased burnup and increased enrichment.	10/31/2019	10/23/2019
Publish a notice of availability for public comment of an updated draft of the Interim Staff Guidance (ISG) in the <i>Federal Register</i> for a 30-day public comment period.	10/31/2019	10/24/2019
Publish the ATF Project Plan, Version 1.1, which includes an Appendix A on burnup and enrichment extension.	10/31/2019	10/30/2019
Conduct a public meeting to discuss stakeholder comments on the draft Interim ISG.	12/31/2019	12/04/2019
Complete the acceptance review for Global Nuclear Fuel – Americas, LLC amendment request to increase enrichment limit to 8 percent.	12/31/2019	12/20/2019

ATF Activities	Planned Completion Date	Completion Date
Complete the acceptance review for Louisiana Energy Services amendment request to increase enrichment limit to 5.5 percent.	12/31/2019	12/23/2019

Projected ATF Activities	Projected Completion Date
Publish notice of availability of the final ISG in the <i>Federal Register</i> .	01/17/2020
Conduct ATF Commission Meeting.	02/25/2020

## 2-4 Digital Instrumentation and Control

The NRC Integrated Action Plan (IAP) for digital instrumentation and control (I&C) (ADAMS Accession No. <u>ML16126A137</u>) defined key improvement activities and the actions for completing modernization efforts. The IAP includes four modernization plans (MPs): (1) Protection Against Common Cause Failure (MP1); (2) Considering Digital I&C in Accordance with 10 CFR 50.59, "Changes, Tests, and Experiments" (MP2); (3) Commercial Grade Dedication of Digital Equipment (MP3); and (4) Assessment for Modernization of the I&C Regulatory Infrastructure (MP4). Feedback from industry indicates that the improvements completed to date under the IAP are enabling the expanded safe use of digital I&C in commercial nuclear reactors. Furthermore, some licensees are planning to submit license amendment requests to the NRC for more extensive digital I&C projects using the improved guidance. Because of this interest, the NRC staff is now preparing for this licensing work, including pre-application activities with potential applicants.

The NRC staff has not scheduled further updates to the IAP. The remaining infrastructure activities described below will be managed through routine internal processes, as described in SECY-19-0112, "Annual Update on the Integrated Strategy to Modernize the U.S. Nuclear Regulatory Commission's Digital Instrumentation and Control Regulatory Infrastructure" (ADAMS Accession No. <u>ML19261B629</u>).

Activities F	Planned	and	Completed f	or the	Reporting	Period	(Q1 FY	2020)

Digital Instrumentation and Control Activities	Planned Completion Date	Completion Date	
MP1D: Updated Branch Technical Position (BTP) 7-19, "Guidance for Evaluation of Diversity and Defense-In-Depth in Digital Computer Based Instrumentation and Control Systems."			
<ul> <li>Advisory Committee on Reactor Safeguards (ACRS) informational meeting</li> </ul>	11/21/19	11/21/19	
Publish BTP 7-19 for public comment	12/31/19	01/14/20	

Digital Instrumentation and Control Activities	Planned Completion Date	Completion Date		
MP3: Endorsement of NEI 17-06, "Guidance on Using IEC 61508 SIL Certification to Support the Acceptance of Commercial Grade Digital Equipment for Nuclear Safety Related Applications," through issuance of a regulatory guide.				
<ul> <li>Hold pre-submittal public meeting</li> </ul>	11/06/19	11/06/19		
MP4: Assessment for Modernization of the I&C Regulatory Infrastructure.				
<ul> <li>Issue draft recommendations</li> </ul>	11/20/19	11/20/19		
Hold a public meeting	11/20/19	11/20/19		
Issue the final report	12/31/19	12/31/19		

Projected Digital Instrumentation and Control Activities	Projected Completion Date	
MP1D: BTP 7-19, "Guidance for Evaluation of Diversity and Defense-In-Depth Computer Based Instrumentation and Control Systems."	n in Digital	
Hold a public meeting	02/11/20	
MP2A: Endorsement of NEI 96-07, Appendix D, "Supplemental Guidance for Application of 10 CFR 50.59 to Digital Modifications," through an update to Regulatory Guide (RG) 1.187, "Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiments." <sup>6</sup>		
ACRS review of RG 1.187	04/30/20	
Final publication of RG 1.187	05/29/20	

## 2-5 Vogtle Electric Generating Plant Units 3 and 4

The NRC issued two combined licenses to Southern Nuclear Operating Company and its financial partners on February 10, 2012, for two AP1000 units to be built and operated at the Vogtle site near Augusta, GA. The NRC's Vogtle Readiness Group (VRG) provides assessments, coordination, oversight, and management direction of NRC activities associated with the licensing, inspection, testing, and operational readiness of Vogtle Units 3 and 4. The VRG tracks the NRC staff's progress using an integrated project plan that considers the licensee's construction and planned start-up schedule.

#### Activities Planned and Completed for the Reporting Period (Q1 FY 2020)

<sup>&</sup>lt;sup>6</sup> MP2A - Completion of the revision to RG 1.187, which endorses Appendix D, has been delayed due to follow on discussions with stakeholders regarding language in Appendix D to the 10 CFR 50.59 rule. The NRC staff issued a draft conditional endorsement of RG 1.187 in May 2019. The ACRS review was to have been completed in November 2019. The staff had planned to issue the final report in December 2019. Currently, the NRC staff is working to address comments from NEI and other stakeholders, including proposals from NEI to revise Appendix D to allow NRC endorsement without conditions. The staff anticipates issuing the endorsement in the spring of 2020.

Vogtle Electric Generating Plant Units 3 and 4 Activities	Planned Completion Date	Completion Date
Public meeting on Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) hearing process to inform the public about the procedures for conducting hearings on whether acceptance criteria in the Vogtle Units 3 and 4 combined licenses are met.	10/30/19	10/30/19
Issue amendments for License Amendment Requests (LARs) 19-001, 19-002, 19-005, 19-006, 19-008, and 19-011.	12/19/19	12/27/19

Projected Vogtle Electric Generating Plant Units 3 and 4 Activities	Projected Completion Date
Public meeting on the NRC plans for inspecting the AP1000 units under the Reactor Oversight Process (ROP).	01/14/20
Public meeting to discuss ROP topics, which includes the inspection of the AP1000 design.	01/22/20
Issue amendments for LARs 19-003, 19-009, 19-012, 19-015, 19-016, 19-017, and 19-018 (provided the requisite findings are made).	03/31/20
Issue amendments for LARs 19-010, 19-014, 19-019, and 19-020 (provided the requisite findings are made).	06/30/20

## NRC Inspections and ITAAC<sup>7</sup> Reviews

Reporting Period	Inspections	ITAAC	Number of ITAAC Remaining
	Completed <sup>8</sup>	Inspected <sup>9</sup>	Requiring Inspection
Q1 - FY 2020	49	27	353

#### ITAAC Reviews Completed (Q1 FY 2020)

The table below provides ITAAC closure notification reviews completed during the reporting period for Vogtle Units 3 and 4, including the date when the NRC received the ITAAC closure notice and the date when the review was completed.

Reporting Period	Unit	ITAAC ID No.	Received Date	Approval Date
Q1 - FY 2020	Vogtle 4	VOG4	10/17/2019	10/31/2019
	Vogtle 3	3.3.00.06b	10/21/2019	10/23/2019

<sup>7</sup> The ITAAC descriptions are available in the Vogtle Units 3 and 4 ITACC Status Report at https://www.nrc.gov/reactors/new-reactors/oversight/itaac.html.

<sup>&</sup>lt;sup>8</sup> This column indicates only the inspections that were completed for the reporting period. The forecast of when inspections are planned for a specific month varies due to the fluidity of the construction schedule.

<sup>&</sup>lt;sup>9</sup> "ITAAC inspected" refers to the number of ITAAC that were inspected as part of ongoing inspections and does not indicate that all inspections were completed for those ITAAC.

Reporting Period	Unit	ITAAC ID No.	Received Date	Approval Date
	Vogtle 3	2.3.05.03d.i	10/17/2019	10/22/2019
	Vogtle 4	2.3.05.03c.i	10/15/2019	10/21/2019
	Vogtle 3	2.2.03.09a.iii	09/30/2019	10/02/2019
	Vogtle 4	2.6.05.03.i	09/25/2019	10/01/2019
	Vogtle 3	2.1.02.08d.v	08/30/2019	10/01/2019
	Vogtle 3	C.2.6.12.05	10/31/2019	11/13/2019
	Vogtle 3	2.2.03.08c.vi.03	10/31/2019	11/07/2019
	Vogtle 3	2.5.04.01	12/26/2019	12/31/2019
	Vogtle 3	3.2.00.02	12/06/2019	12/19/2019
	Vogtle 3	3.3.00.02a.ii.e	12/10/2019	12/16/2019
	Vogtle 4	2.6.03.04j	12/10/2019	12/16/2019
	Vogtle 3	2.6.03.04j	11/26/2019	12/12/2019
	Vogtle 4	2.6.09.05b	11/26/2019	12/12/2019
	Vogtle 4	2.6.09.05b	10/17/2019	10/31/2019

Vogtle Units 3 and 4 License Amendment Request Reviews Completed (Q1 FY 2020)

Reporting Period	Number of License Amendment Request Reviews Forecast to be Completed in the Reporting Period	Number of License Amendment Request Reviews that were Completed in the Reporting Period
Q1 - FY 2020	6	6

## 2-6 NuScale Small Modular Reactor Design Certification

On March 15, 2017, the NRC accepted the NuScale Power, LLC application for a small modular reactor (SMR) design certification review. The NRC staff's technical review is proceeding in six phases under an established public schedule of milestones. The review is currently in Phase 5 (ACRS Review of Advanced Safety Evaluation Report (SER) with No Open Items) and proceeding concurrently with Phase 6 (Final SER with No Open Items). As of December 31, 2019, the staff had issued a total of 1,333 requests for additional information (RAIs), and the applicant has responded to all of them. The staff remains on track to complete the NuScale SMR design certification review within the established 42-month schedule.

## Activities Planned and Completed for the Reporting Period (Q1 FY 2020)

NuScale Small Modular Reactor Design Certification Activities	Planned Completion Date	Completion Date
Completed Phase 4 of the safety review (SER with open items).	12/12/19	12/12/19

Projected Activities for the Next Two Quarters (Q2 and Q3 FY 2020)

Projected NuScale Small Modular Reactor Design Certification Activities	Projected Completion Date
Complete Phase 5 of the safety review (ACRS Review of Advanced SER with No Open Items).	06/23/20

## 2-7 Advanced Nuclear Reactor Technologies

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The NRC is actively preparing for the review of non-light-water-reactor (non-LWR) designs. The agency staff has developed a vision and strategy to ensure that NRC is ready to conduct safety reviews for these technologies effectively and efficiently.<sup>10</sup> The vision and strategy has three objectives: (1) enhancing technical readiness, (2) optimizing regulatory readiness, and (3) optimizing communication. The NRC staff has identified specific activities that it plans to conduct in the near-term (0-5 years), mid-term (5-10 years), and long-term (beyond 10 years) timeframes to achieve non-LWR review readiness.

The NRC's public website lists the open and resolved technical and policy issues related to SMRs and non-LWRs (https://www.nrc.gov/reactors/new-reactors/smr.html#techPolicyIssues). This list is updated periodically to show the status of the issues.

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Advanced Nuclear Reactor Technologies Activities	Planned Completion Date	Completion Date
Enter into an MOU with DOE to implement provisions of the Nuclear Energy Innovation Capabilities Act of 2017 relating to sharing technical expertise and knowledge on advanced nuclear reactor technologies and nuclear energy innovation.	10/18/19	10/07/19
Hold a public meeting on non-LWR topics.	10/31/19	10/10/19
Hold a public meeting on micro-reactor technical and policy issues.	10/31/19	10/17/19
Chair a meeting of the Nuclear Energy Agency's Working Group on the Safety of Advanced Reactors.	10/31/19	10/11/19

<sup>&</sup>lt;sup>10</sup> NRC Vision and Strategy: Safely Achieving Effective and Efficient Non-Light-Water Reactor Mission Readiness (ADAMS Accession No. <u>ML16356A670</u>).

Advanced Nuclear Reactor Technologies Activities	Planned Completion Date	Completion Date
Hold a public meeting on non-LWR topics.	12/31/19	12/12/19
Provide a policy paper to the Commission on "Technology- Inclusive, Risk-Informed, and Performance Based Methodology to Inform the Licensing Basis and Content of Applications for Licenses, Certifications, and Approvals for Non-Light-Water Reactors."	12/31/19	12/02/19

Projected Advanced Nuclear Reactor Technologies Activities	Projected Completion Date
Host a public meeting on Generic Environmental Impact Statement (GEIS) workshop for advanced reactors.	01/31/20
Issue Annual Advanced Reactor Program SECY paper.	02/15/20
Hold a public meeting on non-LWR topics.	02/28/20
Issue final reports on the NRC's non-LWR analytical code strategy.	03/27/20
Host multiple sessions on Advanced Reactor topics at the Regulatory Information Conference.	03/13/20
Publish emergency preparedness (EP) for small modular reactors (SMRs) and other new technologies (ONTs) proposed rule.	03/31/20
Participate in a meeting of the Advanced Reactor Technologies and Small Modular Reactors Subcommittee under the NRC-Canadian Nuclear Safety Commission (CNSC) memorandum of cooperation.	03/31/20
Complete a plan for rulemaking on a technology-inclusive regulatory framework for optional use by applicants for new commercial advanced reactor licenses.	04/30/20
Complete draft safety evaluation (SE) for TRISO topical report to support ACRS meeting.	04/30/20

## 2-8 Reactor Oversight Process

The NRC developed the ROP as a risk-informed, performance-based oversight program. Riskinformed is defined as an approach to regulatory decisionmaking that considers both quantitative and qualitative risk insights and other relevant information, as appropriate. The staff developed recommendations to enhance the ROP. Those recommendations are provided in SECY-19-0067, "Recommendations for Enhancing the Reactor Oversight Process," (ADAMS Accession No. <u>ML19070A050</u>) and are being considered by the Commission. The staff's recommendations resulted from NRC's Transformation activities, stakeholder correspondence, feedback from ROP public meetings, and the annual ROP self-assessment program. The goal of this ROP improvement effort is to focus the NRC's inspection and oversight resources on the most safety significant issues.

Activities Planned and Completed for the Reporting Period (Q1 FY 2020)
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Reactor Oversight Process Activities	Planned Completion Date	Completion Date
Revise Inspection Manual Chapter (IMC) 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," (ADAMS Accession No. <u>ML19011A338</u> ). Revise IMC 0609, Attachment 4, "Initial Characterization of Findings," (ADAMS Accession No. <u>ML19011A326</u> ). Both of these revisions allow the guidance to be used for new reactor designs.	12/31/19	12/20/19
Revise Inspection Procedures 71111.13, .18, .22, and 71153 to provide additional guidance for oversight of risk- informed initiatives such as 10 CFR 50.69, Technical Specification (TS) Surveillance Frequency Control Programs, and TS Risk-Informed Completion Times.	12/31/19	12/20/19

Projected Reactor Oversight Process Activities	Projected Completion Date
Issue revised Inspection Procedure 71111.12 to provide additional guidance for oversight of risk-informed initiatives.	01/31/20
Revise a charter for a comprehensive review of problem identification and resolution inspection program.	03/31/20
Issue revisions to IP 71124, "Radiation Safety – Public and Occupational."	04/30/20
Issue revisions to IMC 0609, "Significance Determination Process" and IMC 0609, Appendix G, "Shutdown Operations Significance Determination Process." These revised documents will incorporate new guidance for inspecting the AP1000 reactor design.	04/30/20
Complete effectiveness review of the cross-cutting issues process.	06/30/2011
Issue report of the cross-cutting issues process effectiveness review.	06/30/2011

## 2-9 Backfit

Backfitting is the imposition of a new or amended regulatory requirement or staff position on certain licensees after issuance of an NRC regulatory approval (e.g., a license or license amendment). The NRC's backfitting rules are codified in 10 CFR 50.109, 70.76, 72.62, and 76.76. The backfitting provisions require, in the absence of an applicable exception, an analysis showing that the backfit would result in a substantial increase in the overall protection of the public health and safety or the common defense and security and that the direct and indirect costs of implementation are justified in view of this increased protection. There are similar

<sup>&</sup>lt;sup>11</sup> Completion of the effectiveness review was previously scheduled for October 31, 2019. Issuance of the report was previously scheduled on December 31, 2019. These completion dates were delayed to provide the opportunity for questions and feedback on the preliminary conclusions from the effectiveness review and potential recommended program adjustments during a public meeting on January 10, 2020.

requirements, referred to as "issue finality," that apply when the NRC imposes new or amended requirements on licenses, permits, and design certifications issued under 10 CFR Part 52. The Commission recently clarified its backfitting and issue finality policy in NRC Management Directive (MD) 8.4, "Management of Backfitting, Forward Fitting, Issue Finality, and Information Requests."

Backfit Activities	Planned Completion Date	Completion Date
Publish the revised MD 8.4. (ADAMS Accession No. <u>ML18093B087</u> ).	10/30/19	10/08/19

Activities Planned and Completed for the Reporting Period (Q1 FY 2020)

Projected Activities for the Next Two Quarters (Q2 and Q3 FY 2020)

Projected Backfit Activities	Projected Completion Date
Provide draft NUREG-1409, Revision 1 to the Commission for information prior to issuing it for public comment.	02/28/20 <sup>12</sup>
Publish notice of availability of draft NUREG-1409, Revision 1 in the <i>Federal Register</i> for public comment.	03/31/20
Hold a public meeting to inform stakeholders of the contents of draft NUREG-1409, Revision 1.	05/29/20

## 2-10 Risk-Informed Activities

The NRC staff is striving to use risk insights more broadly in decisionmaking. There are numerous related activities ranging from overarching (e.g., the risk acceptance transformation initiative mentioned in section 2-1 of this enclosure) to individual undertakings in program and corporate offices.

Activities Planned and Completed for the Reporting Period (Q1 FY 2020)

Risk-Informed Activities	Planned Completion Date	Completion Date
Issue NUREG/CR-2233, "Methodology for Modeling Transient Fires in Nuclear Power Plant Fire Probabilistic Risk Assessments," for public comment (ADAMS Accession No. ML19357A270).	12/31/19	12/27/19
Prepare draft revision of RG 1.200, "An Approach for Determining the Technical Adequacy of Probabilistic	12/31/19	12/31/19

<sup>&</sup>lt;sup>12</sup> This activity, previously scheduled for completion on December 31, 2019, was delayed to incorporate lessons learned into draft NUREG-1409.

Risk-Informed Activities	Planned Completion Date	Completion Date
Risk Assessment Results for Risk-Informed		
Activities," for NRC internal review.		
Hold a public meeting on the draft recommendations		
for building smarter fuel cycle inspection and	12/31/19	11/15/19
licensing programs.		
Hold a public meeting to discuss proposed recommendations made by the Independent Spent Fuel Storage Installation (ISFSI) Inspection Program working group to make a more effective inspection program that is focused on the most risk-significant activities.	12/31/19	12/02/19

Projected Risk-Informed Activities	Projected Completion Date
Brief ACRS Subcommittee on Reliability and Probabilistic Risk Assessment. on the draft revision to RG 1.200.	02/05/20
Publish a final report with the recommendations on building smarter fuel cycle inspection and licensing programs.	03/31/20
Decision on the recommendations made by the ISFSI Inspection Program working group to implement a more reliable, risk-informed, comprehensive, and consistent approach to inspections that focuses on the most risk- significant activities. The recommendations will address feedback received from internal and external stakeholders.	03/31/20 <sup>13</sup>
Publish draft RG 1.200 for public comment.	06/30/20

## Enclosure 3

## **3-1 Reactor Oversight Process Findings**

The table below provides the calendar year (CY) ROP findings for the year-to-date and 3-year rolling metrics.

Location	Number of Findings	CY 2016	CY 2017	CY 2018	CY 2019 <sup>14</sup>
Nationally	Total	704	560	478	344
Office of Nuc Inciden (all I	lear Security and t Response regions)	19	N/A <sup>15</sup>	N/A	N/A

<sup>&</sup>lt;sup>13</sup> This activity was previously scheduled to be completed by December 31, 2019. It has been delayed to allow consideration of public comments received through December 20, 2019.

<sup>&</sup>lt;sup>14</sup> Findings as of January 10, 2020. The total number of findings for CY 2019 will not be finalized until after all 4th quarter Integrated Inspection Reports are issued by February 2020. <sup>15</sup> Starting in FY 2017, these findings are included in the findings for each region.

Location	Number of Findings	CY 2016	CY 2017	CY 2018	CY 2019 <sup>14</sup>
	Green	155	126	107	80
	White	2	2	1	0
RI	Yellow	0	0	0	0
	Red	0	0	0	0
	Greater than green Security	0	0	0	0
	Total	157	128	108	80
	No. of units operating during the CY	25	25	25	24 <sup>16</sup>
	Green	151	119	113	89
	White	0	3	0	1
RII	Yellow	0	0	0	0
	Red	0	0	0	0
	Greater than green Security	1	2	0	0
	Total	152	124	113	90
	No. of units operating during the CY	33	33	33	33
	Green	177	133	110	75
	White	1	4	2	1
RIII	Yellow	0	0	0	0
	Red	0	0	0	0
	Greater than green Security	1	0	0	0
	Total	179	137	112	76
	No. of units operating during the CY	23	23	23	23
	Green	196	167	145	98
	White	1	2	0	0
RIV	Yellow	0	0	0	0
	Red	0	0	0	0
	Greater than green Security	0	2	0	0
	Total	197	171	145	98

<sup>&</sup>lt;sup>16</sup> The reduction of one unit from CY 2018 reflects the permanent shutdown of Oyster Creek on September 17, 2018.

Location	Number of Findings	CY 2016	CY 2017	CY 2018	CY 2019 <sup>14</sup>
	No. of units operating during the CY	19	18 <sup>17</sup>	18	18

## **3-2 Licensing Actions**

The tables below provide the status of licensing actions organized by licensing program. Consistent with Section 102(c) of NEIMA, the licensing actions referenced in this section include "requested activities of the Commission" for which the NRC staff issues a final safety evaluation. These totals do not include license amendment requests, as they are addressed separately in section 3-3. The inventory of licensing actions is the total number open at the end of the quarter.

# Operating Reactors

Reporting Period	Total Inventory	Licensing Actions Initiated During the Reporting Period	Licensing Actions Completed During the Reporting Period	Percentage of Licensing Actions Completed Prior to the Generic Milestone Schedule <sup>18</sup>	Percentage of Licensing Actions Completed Prior to the Established Schedule <sup>19</sup>
Q2 FY 2019	215	97	66	88%	60%
Q3 FY 2019	204	67	83	100%	95%
Q4 FY 2019	160	72	120	100%	96%
Q1 FY 2020	170	40	37	100%	89%

New Reactors<sup>20</sup>

Reporting Period	Total Inventory	Licensing Actions Initiated During the Reporting Period	Licensing Actions Completed During the Reporting Period	Percentage of Licensing Actions Completed Prior to the Generic Milestone Schedule	Percentage of Licensing Actions Completed Prior to the Established Schedule
Q2 FY 2019	13	1	1	100%	100%

<sup>&</sup>lt;sup>17</sup> The reduction of one unit from CY 2016 to CY 2017 reflects the permanent shutdown of Fort Calhoun on October 24, 2016.

<sup>&</sup>lt;sup>18</sup> Excludes unusually complex and Fukushima-related licensing actions accepted or initiated prior to July 13, 2019 (consistent with previous monthly reports).

<sup>&</sup>lt;sup>19</sup> The established scheduled is the schedule communicated to the licensee and made publicly available at the completion of the acceptance review.

<sup>&</sup>lt;sup>20</sup> The following values for New Reactors have been corrected: Q2 FY 2019 total inventory and licensing actions completed and Q4 FY 2019 licensing actions completed.

Reporting Period	Total Inventory	Licensing Actions Initiated During the Reporting Period	Licensing Actions Completed During the Reporting Period	Percentage of Licensing Actions Completed Prior to the Generic Milestone Schedule	Percentage of Licensing Actions Completed Prior to the Established Schedule
Q3 FY 2019	9	0	4	100%	100%
Q4 FY 2019	7	0	2	100%	100%
Q1 FY 2020	5	2	0	N/A	N/A

Fuel Facilities<sup>21</sup>

Reporting period	Total Inventory	Licensing Actions Initiated in the Reporting Period	Licensing Actions Completed in the Reporting Period	Percentage of Licensing actions Completed Prior to the Generic Milestone Schedule	Percentage of Licensing Actions Completed Prior to the Established Schedule
Q2 FY 2019	3	3	1	100%	100%
Q3 FY 2019	1	1	3	100%	100%
Q4 FY 2019	4	3	0	N/A	N/A
Q1 FY 2020	6	4	2	100%	100%

## 3-3 License Amendment Request Reviews

The tables below provide the following information: the status of license amendment request reviews for the licensing programs including total inventory, license amendment requests submitted during the quarter, and reviews completed during the quarter. The percentage of reviews completed prior to the respective generic milestone and the percentage of reviews completed prior to the respective established schedule are also presented. These tables exclude unusually complex license amendments accepted prior to July 13, 2019. License amendment request reviews are included in the total inventory after they have been accepted by the NRC (the acceptance review period is generally 30 days after the application is submitted).

<sup>&</sup>lt;sup>21</sup> The following values for Fuel Facilities have been corrected: Q4 FY 2019 total inventory and licensing actions initiated in the reporting period.

## **Operating Reactors**

Reporting Period	Total Inventory	LARs Submitted During the Reporting Period	LAR Reviews Completed During the Reporting Period	Percentage of LAR Reviews Completed Prior to the Generic Milestone Schedule	Percentage of LAR Reviews Completed Prior to the Established Schedule
Q2 FY 2019	342	147	106	100%	72%
Q3 FY 2019	394	140	89	100%	71%
Q4 FY 2019	400	129	123	100%	86%
Q1 FY 2020	400	97	122	100%	92%

New Reactors<sup>22</sup>

Reporting Period	Total Inventory	LARs Submitted During the Reporting Period	LAR Reviews Completed During the Reporting Period	Percentage of LAR Reviews Completed Prior to the Generic Milestone Schedule	Percentage of LAR Reviews Completed Prior to the Established Schedule
Q2 FY 2019	9	3	7	100%	100%
Q3 FY 2019	8	5	6	100%	100%
Q4 FY 2019	14	8	2	100%	100%
Q1 FY 2020	12	4	6	100%	100%

Fuel Facilities

Reporting period	Total Inventory	LARs Submitted During the Reporting Period	LAR Reviews Completed During the Reporting Period	Percentage of LAR Reviews Completed Prior to the Generic Milestone Schedule	Percentage of LAR Reviews Completed Prior to the Established Schedule
Q2 FY 2019	8	6	6	100%	83%
Q3 FY 2019	8	3	3	100%	100%
Q4 FY 2019	6	1	3	100%	100%
Q1 FY 2020	10	7	3	100%	100%

Unusually Complex License Amendment Requests

The staff has identified certain license amendment requests (accepted for review prior to

 $<sup>^{\</sup>rm 22}$  The New Reactors Q2, Q3, and Q4 FY 2019 values for Total Inventory have been corrected.

July 13, 2019), as unusually complex. Consistent with the previous reports, these unusually complex submittals are not included in the internal performance measures as they do not lend themselves to realistic schedule forecasting. Rather, they are given escalated management attention to ensure progress is made toward resolving outstanding issues and completing the reviews in a timely manner. There are currently no such ongoing reviews that have exceeded their original schedule by more than 180 days.

## **Operating Reactors**

Unusually Complex LAR Description	Exclusion Justification	Age (Months)
Sequoyah Units 1 and 2—Updated Final Safety Analysis Reports Regarding Changes to Hydrologic Analysis	The licensee withdrew this LAR and submitted a new LAR by letter dated January 14, 2020.	88
Browns Ferry 1, 2, and 3—MELLLA+ Core Flow Operating Range Expansion	MELLLA+ reviews are unusually complex due to their technical nature.	20 <sup>23</sup>
Hatch—National Fire Protection Association (NFPA) 805 Review	NFPA-805 reviews are unusually complex due to the complicated nature of the subject matter.	18
Hatch—Adopt 10 CFR 50.69, Risk-Informed Categorization and Treatment of Structures, Systems, and Components for Nuclear Power Reactors	This review is tied to the review of the Hatch NFPA-805 application.	17
North Anna Units 1 and 2—Revision of the Small Break Loss of Coolant Accident (SBLOCA) Analytical Methodologies	Involves multiple plant- specific SBLOCA methodologies.	16
Surry Units 1 and 2—Revision of Analytical Methodologies for SBLOCA	Involves multiple plant- specific SBLOCA methodologies.	16
Palo Verde Units 1, 2, and 3—Framatome High Thermal Performance Fuel	First-of-a-kind review.	13
Brunswick Units 1 and 2—ATRIUM 11 Advanced Fuel Transition	First-of-a-kind review.	13
Virgil C. Summer Unit 1—Request to Revise the Approved NFPA-805 Program	NFPA-805 reviews are unusually complex due to the complicated nature of the subject matter.	15
Calvert Cliffs Units 1 and 2—Adopt 10 CFR 50.69, Risk-Informed Categorization and Treatment of Structures, Systems and Components for Nuclear Power Reactors	First-of-a-kind seismic risk- informed review.	11

<sup>&</sup>lt;sup>23</sup> The Browns Ferry 1, 2, and 3—MELLLA+ Core Flow Operating Range Expansion LAR was completed on December 26, 2019 and will be removed from the list for the next reporting period.

New Reactors

None

Fuel Facilities

None

## 3-4 Research Activities<sup>24</sup>

#### Summary of New Research Projects

During the reporting period, the Office of Nuclear Regulatory Research initiated research on or substantially revised the following projects:

Name of New or Revised Project	Requesting Business Line	Estimated Completion	Estimate of Research Resources
Irradiation-Assisted Degradation of Reactor Pressure Vessel Internals from Long-Term Operation This research will inform regulatory decisions to ensure industry applications adequately manage aging effects and mechanisms related to irradiation-	Operating Reactors	FY 2022	1.5 FTE & \$3M
assisted degradation of reactor vessel internal components during long-term operation.			

## Summary of Completed Research Projects<sup>25</sup>

During the reporting period, the Office of Nuclear Regulatory Research completed the following activities:

Name and Purpose of Completed Project	Duration of the Project	Estimate of Research Resources	Project Research Results or Findings
Neutron Absorber Materials Research The objective of this research was to evaluate the performance of aluminum-based neutron absorbing materials used in	4 years	2 FTE & \$1M	The results of the research determined that aluminum-based neutron absorbing materials used in spent fuel pools should perform their safety

 <sup>&</sup>lt;sup>24</sup> Provides information about projects that were reviewed and approved during the reporting period and exceeded
 300 staff hours or \$500K of program support for the duration of the project (consistent with previous reports).
 <sup>25</sup> The research project resources are estimates of staff hours and program support costs based on inspection of project records, including staffing plans and contract spending plans.

spent fuel pools and assess their associated condition monitoring programs.			function for their expected service lives and that condition monitoring programs are effective when conducted in accordance with NRC and industry guidance.
Training of regional inspectors and technical staff on the implementation of the decommissioning planning rule for groundwater monitoring and modeling of residual radioactivity at fuel cycle facilities.	1 year	0.2 FTE	RES developed and delivered the subject training course to support agency inspectors.

#### 3-5 Fees Billed

The tables below provide information on Part 170 fees billed for each fee class. For each fee class, the staff compared the fees billed to the receipts estimated in the annual fee rule.

Fee Class	FY 2019 Part 170 Receipts Estimated— Annual Fee Rule (\$M) <sup>26</sup>	Part 170— Billed in FY 2020 Q1 (\$M)	Part 170— Billed in FY 2020 Q1-4 (\$M)
Fuel Facilities	\$7.3	\$1.9	\$1.9
Generic Decommissioning	\$3.2	\$1.2	\$1.2
Materials Users <sup>27</sup>	\$1.1	\$0.3	\$0.3
Operating Power Reactors	\$217.7	\$54.1	\$54.1
Research and Test Reactors	\$0.5	\$0.4	\$0.4
Spent Fuel Storage/Reactor Decommissioning	\$17.8	\$3.1	\$3.1
Transportation	\$3.7	\$0.8	\$0.8
Uranium Recovery	\$0.8	\$0.2	\$0.2

#### Significant Ongoing Licensing Actions

The following table includes a comparison of the fees billed to projected resources for the NuScale SMR design certification review, subsequent license renewal application reviews and the SHINE Medical Technologies, LLC operating license application review.

<sup>&</sup>lt;sup>26</sup> The FY 2019 Final Fee Rule estimated collections is being used until the FY 2020 Proposed Fee Rule is in the final stages of publication. <sup>27</sup> Materials Users—Billed as flat fee applications and included in the estimates and billed.

Docket	Project Name	Projected Resources (\$M) <sup>28</sup>	Fees Billed to Date (\$M)
NuScale Power Reactor 05200048	NuScale SMR Design Certification Application Review	<b>***</b>	\$53.6
NuScale Power Reactor 99902043	NuScale SMR Topical Report Reviews (only those that directly support the design certification review)	\$66.0 <sup>29</sup>	\$7.5
Turkey Point Units 3 and 4 05000250/05000251	Turkey Point Units 3 and 4 Subsequent License Renewal Application—Safety Review	\$5.2	\$5.0
Turkey Point Units 3 and 4 05000250/05000251	Turkey Point Units 3 and 4 Subsequent License Renewal Application—Environmental Review	\$3.6	\$3.4
Peach Bottom Units 2 and 3 05000277/05000278	Peach Bottom Units 2 and 3 Subsequent License Renewal Application—Safety Review	\$4.3	\$3.8
Peach Bottom Units 2 and 3 05000277/05000278 Peach Bottom Units 2 and 3 Subsequent License Renewal Application—Environmental Review		\$1.5	\$1.4
Surry Units 1 and 2 05000280/05000281	Surry Units 1 and 2 Subsequent License Renewal Application— Safety Review	\$4.9	\$4.2
Surry Units 1 and 2 05000280/05000281	Surry Units 1 and 2 Subsequent License Renewal Application— Environmental Review	\$1.4	\$1.4
SHINE Medical Technologies, LLC 05000608	SHINE Medical Isotope Production Facility Operating License Application Review – Safety and Environmental Reviews	TBD <sup>30</sup>	\$1.0

<sup>&</sup>lt;sup>28</sup> Projected resources are calculated based on the full-time equivalent (FTE) estimates provided to applicants in the acceptance letters. Dollar amounts are obtained by multiplying the hours estimate by \$275/hour.

<sup>&</sup>lt;sup>29</sup> When the NuScale design certification application was submitted, it was not the NRC's practice to provide projected resources to applicants. This number was calculated for this report using fees billed to date (for the NuScale design certification application and supporting topical reports - \$58.1M) plus a projection of the fees that the NRC staff expects to bill through the end of the technical review in September 2020 (\$7.9M). This estimate is based on critical assumptions such as high quality and timely submittals by NuScale for the remainder of the review. Costs associated with pre-application activities are not included.

<sup>&</sup>lt;sup>30</sup> When the SHINE operating license application was accepted for review by the NRC staff, a detailed resource estimate was not provided due to information gaps present in the application. As noted in the October 8, 2019, application acceptance letter (ADAMS Accession No. <u>ML19276D411</u>), a projected level of effort to compete the detailed technical review will be established once the NRC staff receives supplemental information related to topics including instrumentation and control systems and accident analyses and methodologies.

## 3-6 Requests for Additional Information

The table below provides information on RAIs for Q4 FY 2019 associated with licensing actions that were accepted for review after July 13, 2019. Consistent with Section 102(c) of NEIMA, the licensing actions referenced in this section include "requested activities of the Commission" for which the NRC staff issues a final safety evaluation. The number of RAIs issued and responded to will increase in future reports, as most of these reviews have just started. Several licensing actions are under review that were accepted prior to July 13, 2019; the staff continues to issue and close RAIs on these actions.

Type of Facility or Activity Type	Total Inventory of Open RAIs (as of the end of reporting period)	Total Number of RAIs Issued in Reporting Period	Total Number of RAIs Responded to in Reporting Period	Total Number of RAIs Closed in Reporting Period <sup>31</sup>
Operating Reactors	437	122	301	240
Research and Test Reactors	37	10	18	60
Design Certifications for New Reactors	149	7	N/A	9
Early Site Permits for New Reactors <sup>32</sup>	N/A	N/A	N/A	N/A
Combined Licenses for New Reactors <sup>27</sup>	N/A	N/A	N/A	N/A
Fuel Facilities	14	27	18	13
Reactor Decommissioning	13	0	11	4
Research and Test Reactor Decommissioning	4	0	3	0
Spent Fuel	542	92	56	19
Materials <sup>33</sup>	0	0	0	0
Pre-Application Activities for Advanced Reactors	27	27	2	2

## 3-7 Workforce Development and Management

<sup>&</sup>lt;sup>31</sup> RAIs are considered closed once the final safety evaluation is finalized.

<sup>&</sup>lt;sup>32</sup> There are no early site permit applications or combined license applications under review by the NRC; therefore, there will be no RAI data to report until an application is submitted and accepted by the NRC for review.

<sup>&</sup>lt;sup>33</sup> This section covers complex materials sites. It does not include nuclear material user licensing actions because those actions (e.g., portable gauges, industrial radiography, medical use licensees, etc.) do not result in issuance of a safety evaluation and thus are not within the scope of section 102(c) of NEIMA.

The table below provides information on staffing by office for the reporting period. The budgeted amount for each office is the budget for the fiscal year.

	FY 2020 Staffing by Office <sup>34</sup>							
	FY 2020 Budget	FTE Utilization 09/29/2019 - 10/26/2019	FTE Utilization 10/27/2019 - 11/23/2019	FTE Utilization 11/24/2019 - 12/21/2019	FTE Utilization as of 12/21/2019	Delta (Q1 FTE Utilization – FY 2020 Budget)	EOY <sup>3536</sup> Projection w/ Personnel Actions	Delta (EOY Projection – FY 2020 Budget)
Totals <sup>37</sup>	2928.1	213.3	212.9	212.1	638.3	-2289.8	2789.0	-139.1
COMM	45.0	2.2	2.2	2.2	6.5	-38.5	34.8	-10.2
Totals Other Offices	2992 1	211.1	210.8	200.0	631.9	2251.2	2754 2	129.9
OCEO	2003.1	7 1	7 1	209.9	21.1	74.0	03.4	-120.0
OGC	96.0	7.1	7.1	7.0	21.1	-74.0	93.4	-2.0
OCA	11.0	0.8	0.8	0.8	2.3	-8.7	10.0	-2.1
OCAA	8.0	0.5	0.5	0.5	1.5	-6.5	6.6	-1.4
OPA	15.0	1.1	1.1	1.1	3.2	-11.8	14.0	-1.0
SECY	18.0	1.2	1.2	1.2	3.5	-14.5	15.1	-2.9
OIP	35.0	2.5	2.6	2.5	7.6	-27.4	35.5	0.5
ASLBP	24.0	1.7	1.8	1.7	5.2	-18.8	22.6	-1.4
ACRS	24.0	2.0	2.2	2.0	6.2	-17.8	28.5	4.5
OEDO	23.0	1.6	1.5	1.5	4.6	-18.4	21.0	-2.0
NRR	610.1	44.9	44.7	44.6	134.2	-475.9	570.8	-39.3
NMSS	299.5	23.6	23.5	23.6	70.8	-228.7	305.3	5.8
RES	204.2	14.6	14.6	14.4	43.6	-160.6	193.4	-10.8
NSIR	156.5	12.2	12.3	12.3	36.8	-119.7	157.8	1.3
R-I	182.3	13.3	13.2	13.2	39.8	-142.5	174.9	-7.4
R-II	237.2	17.0	17.0	17.0	51.1	-186.1	221.4	-15.8
R-III	178.9	13.5	13.5	13.5	40.4	-138.5	176.7	-2.2
R-IV	166.1	12.2	12.2	12.3	36.6	-129.5	161.9	-4.2
OE	30.3	2.3	2.3	2.4	7.0	-23.3	30.1	-0.2
OI	38.0	3.1	3.2	3.2	9.4	-28.6	39.8	1.8
OCIO	171.0	12.1	12.0	11.7	35.8	-135.2	159.2	-11.8
ADM	133.0	8.9	8.8	8.8	26.6	-106.4	117.7	-15.3
SBCR	13.0	0.8	0.8	0.7	2.3	-10.7	11.3	-1.7
OCHCO	112.0	6.7	6.6	6.5	19.8	-92.2	91.4	-20.6
CSU	1.0	0.2	0.2	0.2	0.5	-0.5	2.0	1.0

## **3-8 Inspection Activities**

<sup>&</sup>lt;sup>34</sup> Some numbers might not add due to rounding.

<sup>&</sup>lt;sup>35</sup> The method used to determine FTE projections has been enhanced to allow for planned actions and expected losses based on historical trends. The new method is intended to provide a more realistic and stable set of FTE projections. <sup>36</sup> Based on FTE utilization as of 12/21/19.

<sup>&</sup>lt;sup>37</sup> Totals do not include Office of the Inspector General.

The table below shows the average number of hours of direct inspection per plant in FY 2019.

Nationwide per plant (unit)	Column 1 of ROP Action Matrix	Column 2 of ROP Action Matrix	Column 3 of ROP Action Matrix	Column 4 of ROP Action Matrix
1,761 Hours	1,736 Hours	2,069 Hours <sup>38</sup>	No Plants in Column 3	No Plants in Column 4 <sup>39</sup>

Average Reactor Oversight Process Direct Inspection Hours

The table below shows the staff hours expended for inspection-related effort at operating power reactor sites by calendar year.

Items	Description	Calendar Year 2018 (Hours)	Calendar Year 2019 (YTD) (Hours)
i.	Baseline Inspection <sup>40</sup>	261,691	235,718
ii.	Plant-specific inspections	14,788	9,096
iii.	Generic safety issue inspections	5,471	3,200
iv.	Performance Assessment	1,783	1,532
٧.	Other Activities	70,288	98,614 <sup>41</sup>
vi.	Total staff effort	354,021	348,160
vii.	Total staff effort per operating site	6,104 <sup>42</sup>	6,108 <sup>43</sup>

#### 3-9 Backfit

#### Facility-Specific Backfits

There were no facility-specific backfits issued during the reporting period.

#### Generic Backfits

There were no generic backfits issued during the reporting period.

<sup>&</sup>lt;sup>38</sup> Grand Gulf (single unit BWR site), Watts Bar Units 1 and 2 (dual unit PWR site), Clinton (single unit BWR site), Peach Bottom Units 1 and 2 (dual unit BWR site), and Brunswick, Unit 1 (dual unit BWR site) were in Column 2 of the ROP Action Matrix for at least one quarter of CY19. Clinton and Peach Bottom were inadvertently omitted from the previous report's Column 2 average; this error has been corrected with this report.

 <sup>&</sup>lt;sup>39</sup> Pilgrim Station moved from Column 4 to Column 1 on March 4, 2019, and permanently ceased power operations on May 31, 2019. Total ROP-related direct inspection hours for Pilgrim through May 31, 2019, was 908 hours.
 <sup>40</sup> Baseline inspection hours includes inspection preparation and documentation hours, which are approximately 70 percent of the direct inspection effort.
 <sup>41</sup> The increase in "Other Activities" was anticipated and can be attributed, in large part, to the change in the FY 2019

<sup>&</sup>lt;sup>41</sup> The increase in "Other Activities" was anticipated and can be attributed, in large part, to the change in the FY 2019 Fee Rule that retired the previous 6 percent surcharge on Part 170 fees to recover costs for senior resident inspectors (SRIs) and resident inspectors (RIs) indirect time (in an official duty status but not related to a specific inspection). This surcharge was used to recover the full cost of each SRI and RI assigned to a specific plant, which is required by 10 CFR 170.12(c)(1). In the FY 2019 fee rule, the NRC made this fee recovery effort more transparent by retiring the 6 percent surcharge and replacing it with SRIs and RIs charging indirect time to docket-specific cost accounting codes that align to "Other Activities."

<sup>&</sup>lt;sup>42</sup> This total is divided by 58 sites operating in calendar year 2018 (including Oyster Creek, which permanently ceased operations on September 17, 2018).

<sup>&</sup>lt;sup>43</sup> This total is divided by 57 sites operating in 2019 (decrease due to Oyster Creek). This number includes Pilgrim Nuclear Station, which permanently ceased operations on May 31, 2019.

#### Backfit Appeals Filed by Licensees and Applicants

There were no backfit appeals submitted to the NRC during the reporting period.44

<sup>&</sup>lt;sup>44</sup> By letter dated October 16, 2019, the licensee for the R.E. Ginna Nuclear Power Plant, Exelon Generation, contested a violation on the basis that it constituted unjustified backfitting. By letter dated November 27, 2019, the licensee requested that the NRC disposition its claim that it meets its licensing basis under the NRC's enforcement process for contested violations rather than through the backfit appeal process). The licensee further stated that if the NRC concludes that the licensee is not meeting its licensing basis and maintains the violation, then the licensee may then decide to appeal that determination via the backfit appeal process. This issue remains under review.