

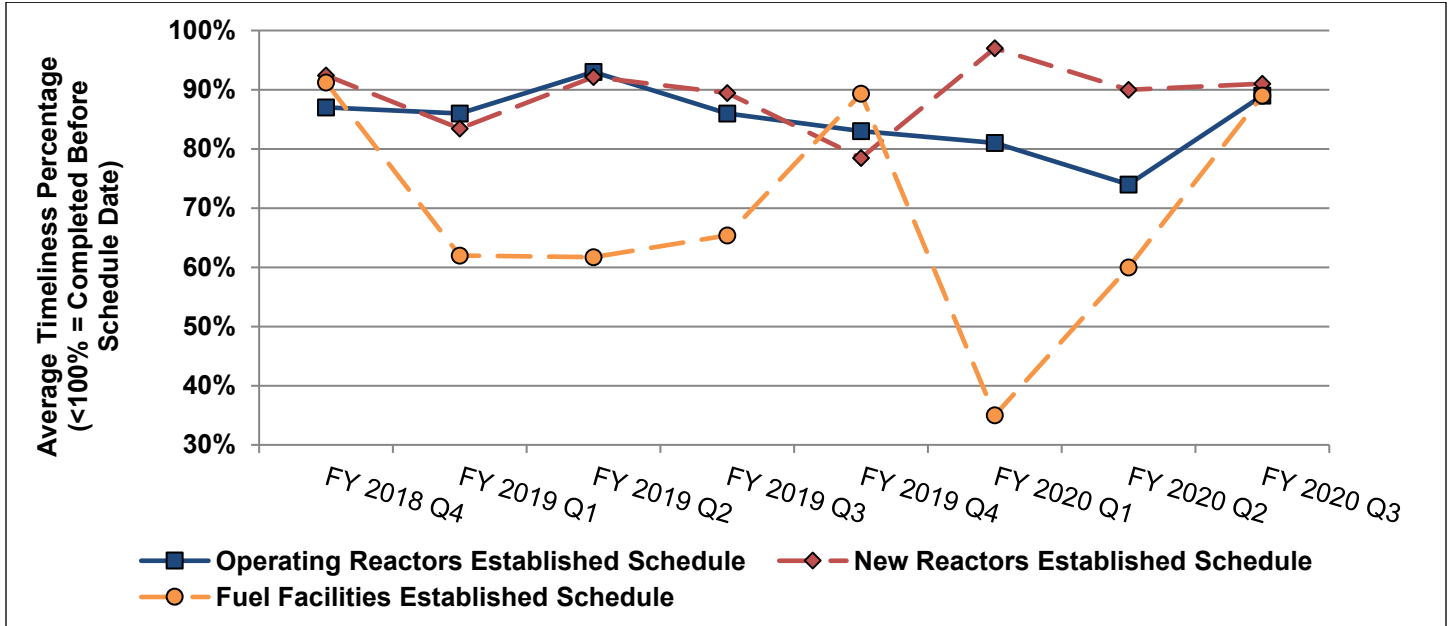
**STATUS REPORT ON THE LICENSING ACTIVITIES  
AND REGULATORY DUTIES OF THE  
U.S. NUCLEAR REGULATORY COMMISSION  
For the Reporting Period of April 1, 2020 through June 30, 2020**

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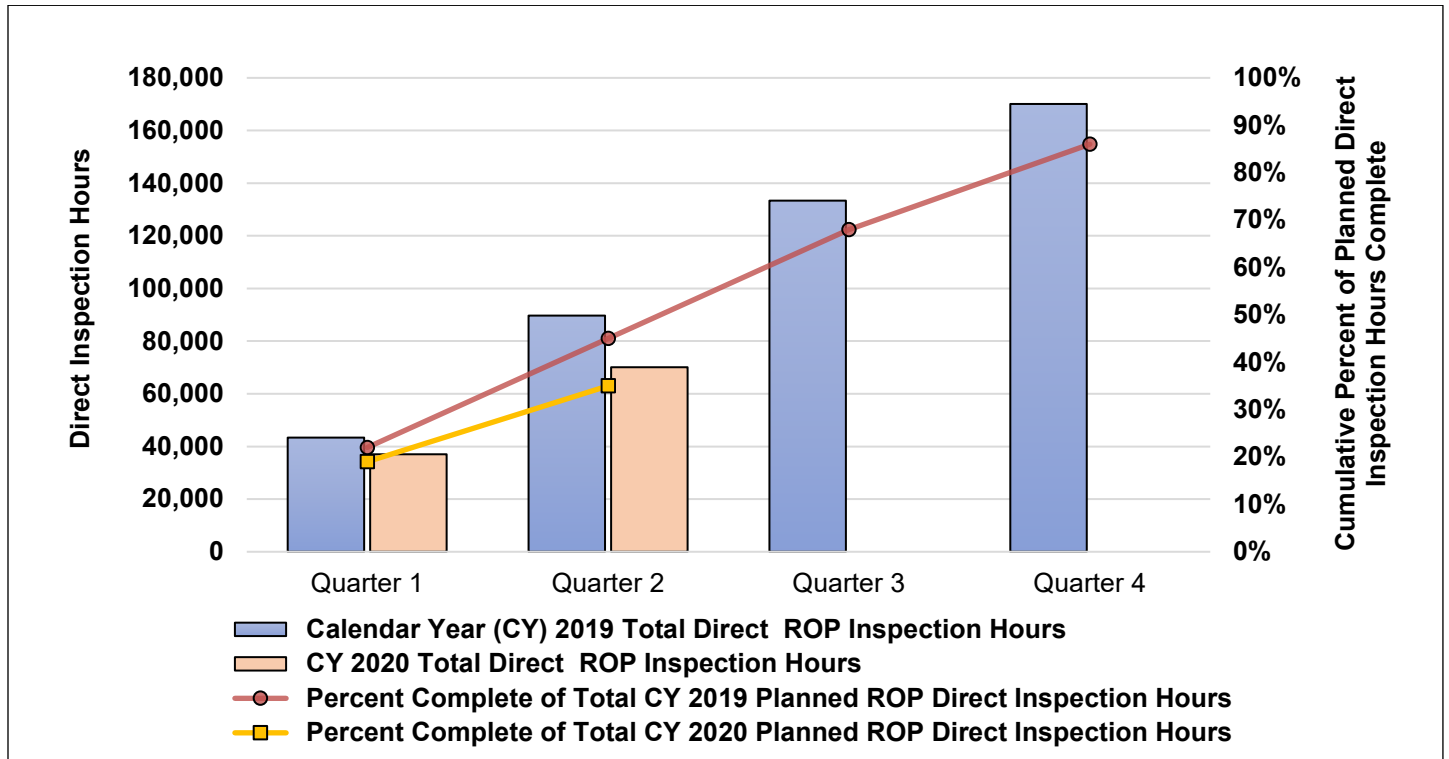
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## Enclosure 1 – High Level Summary

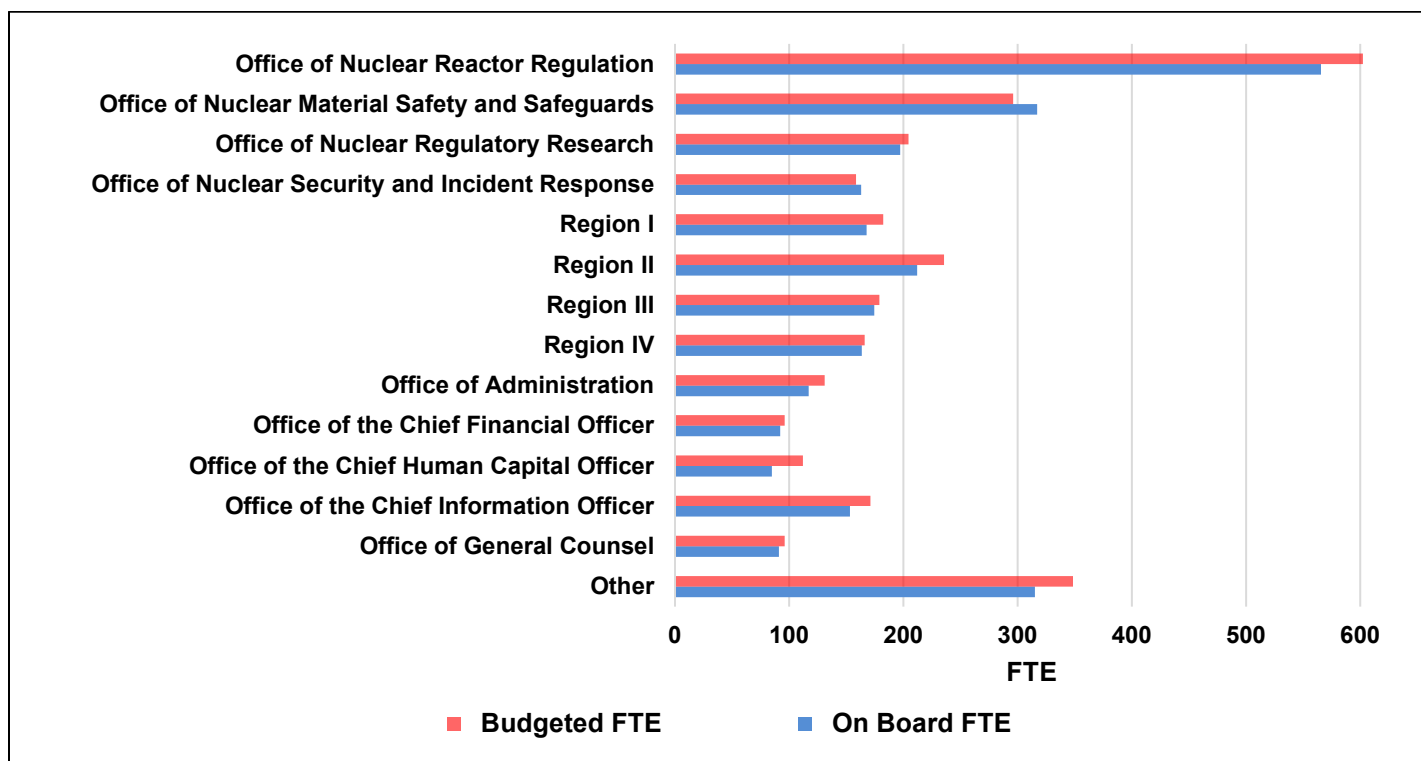
### 1-1 Average Timeliness Percentage for Licensing Actions Categorized Under the Nuclear Energy Innovation and Modernization Act



### 1-2 Reactor Oversight Inspection Hours and Percent Complete



### 1-3 FTE at the End of Q3 FY 2020 vs. Budgeted FTE



### 1-4 Budget Authority, FTE Utilization, and Fees

NRC FY 2020 Budget Authority - June 30, 2020 (Dollars in Thousands)

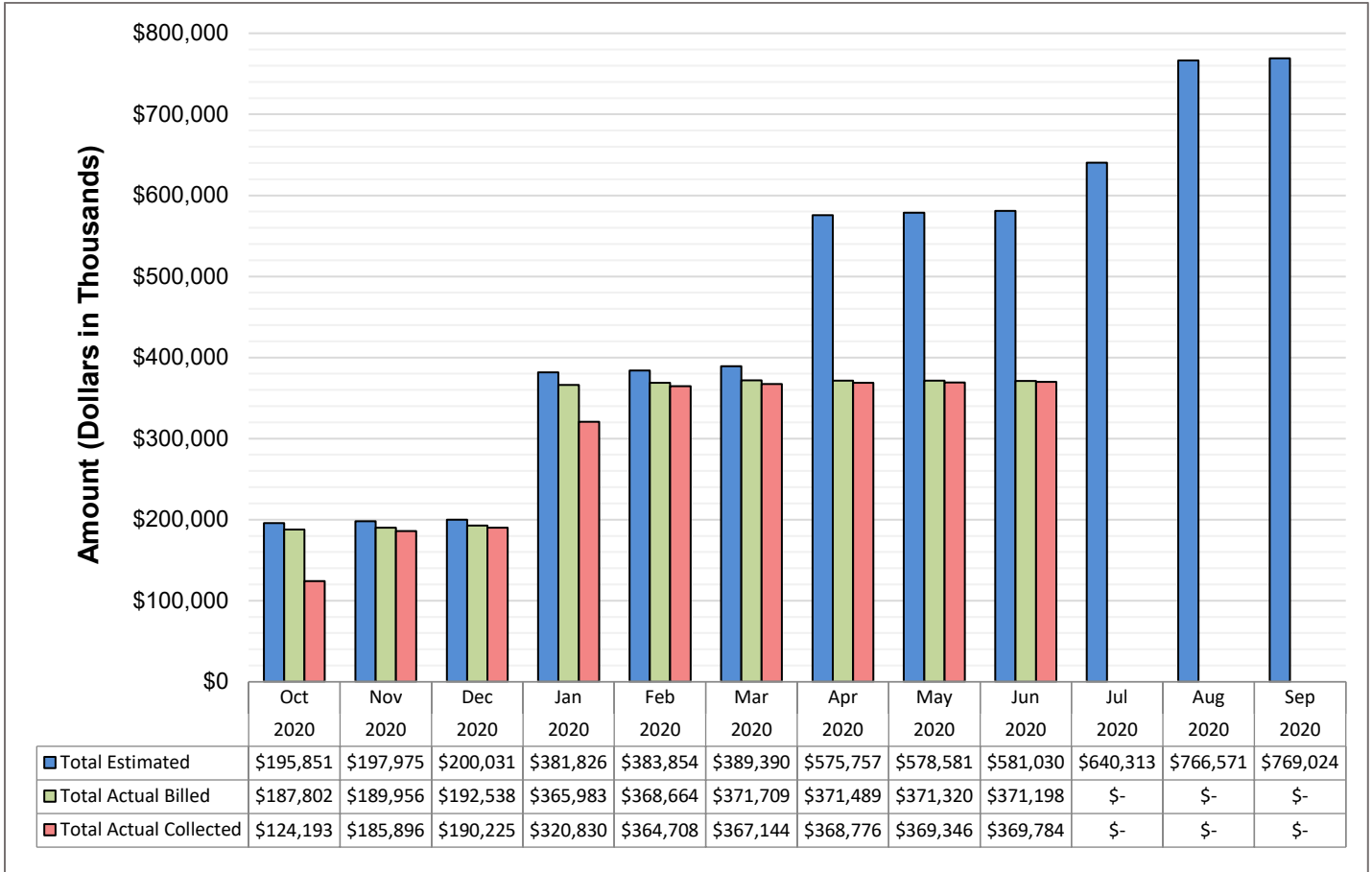
Fund Sources	FY 2020 Budget <sup>1</sup>	Percent Obligated	Percent Expended
Advanced Reactor	\$15,844	75%	47%
Commission Funds	\$11,953	36%	36%
Fee-Based Funds	\$825,430	69%	55%
General Funds	\$1,303	52%	23%
International Activities	\$14,500	58%	45%
Integrated University Program	\$16,000	0%	0%
Official Representation	\$25	25%	19%
<b>Total</b>	<b>\$885,055</b>	<b>67%</b>	<b>54%</b>
NRC Control Points	FY 2020 Budget	Percent Obligated	Percent Expended
Nuclear Reactor Safety	\$447,940	72%	62%
Nuclear Materials and Waste Safety	\$103,191	71%	58%
Decommissioning and Low-Level Waste	\$22,891	73%	62%
Corporate Support	\$295,033	63%	42%
Integrated University Program	\$16,000	0%	0%
<b>Total</b>	<b>\$885,055</b>	<b>67%</b>	<b>54%</b>

<sup>1</sup> FY 2020 budget includes the enacted and carryover budget.

FTE Utilization, Hiring, and Attrition

Total Year to Date (YTD) FTE Utilization	Projected End of Year FTE Total Utilization	Quarter 3 Hiring	Quarter 3 Attrition	YTD Hiring	YTD Attrition
2035.2	2795.2	20	33	61	152

FY 2020 Fees Estimated, Fees Billed, and Fees Collected Through Q3<sup>2</sup>



Total 10 CFR Part 170 Fees Billed (Dollars in Millions)

FY 2018	FY 2019	FY 2020 (Q1 – Q3)
\$266.0	\$245.3	\$109.6

<sup>2</sup> In order to temporarily mitigate the financial impacts and economic disruptions caused by the Coronavirus Disease 2019 (COVID-19) public health emergency (PHE) for licensees, the NRC deferred all invoices scheduled to be issued in April, May, and June 2020 until July 22, 2020. See Enclosure 2, Section 2-12, "Coronavirus Disease 2019 Public Health Emergency," for more information on NRC's PHE-related actions.

## Enclosure 2 – Status of Specific Items of Interest

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 currently encompasses a broad set of activities intended to advance the agency towards the vision of being a more modern, risk-informed regulator. There are four focus areas: (1) recruiting, developing, and retaining a strong workforce; (2) improving decisionmaking through the acceptance of an appropriate level of risk without compromising the NRC’s mission; (3) establishing a culture that embraces innovation; and (4) adopting new and existing information technology resources.

During the reporting period, staff conducted an agencywide survey to identify elements of NRC culture that should be addressed to enhance the acceptance of transformation. The results of the survey highlighted behavioral trends of concern that will be addressed in a culture improvement plan. During this reporting period, staff also launched the Innovate NRC 2.0 technology platform to enhance the process by which innovative ideas can be collected, assessed, and implemented. On the day that it was launched, approximately one-third of agency staff accessed the platform and contributed several hundred examples of innovation from their work. Finally, with most staff working remotely during this reporting period, the staff benefited from efforts to adopt modern information technology tools, including those that support remote connectivity, electronic document sharing, and virtual meetings.

#### Activities Planned and Completed for the Reporting Period (Q3 FY 2020)

Transformation Activities	Projected Completion Date	Completion Date
Conduct a staff survey to identify elements of the agency culture that should be addressed to enhance the acceptance of transformation.	04/03/2020	04/03/2020
Implement a new process to recognize staff who contribute innovative ideas for improving the work of the agency.	05/31/2020	06/30/2020 <sup>3</sup>
Launch the Innovate NRC 2.0 technology platform and begin agencywide training to facilitate innovation, such as anticipated crowdsourcing.	06/20/2020	06/18/2020

#### Projected Activities for the Next Two Reporting Periods (Q4 FY 2020 and Q1 FY 2021)

Projected Transformation Activities	Projected Completion Date
Begin implementation of updated process to streamline Commission paper preparation.	07/30/2020

<sup>3</sup> The implementation of a new process to recognize staff who contribute innovative ideas was delayed to conduct additional pilot testing and to accommodate work schedule disruptions associated with the COVID-19 PHE.

<b>Projected Transformation Activities</b>	<b>Projected Completion Date</b>
Conduct seminar for all agency staff on strategic and managerial aspects of risk-informed decisionmaking.	09/01/2020
Brief the Commission on staff's transformation activities (public meeting).	09/17/2020 <sup>4</sup>
Develop the first iteration of the initial nuclear energy sector indicators to pilot in decisionmaking processes, such as workforce planning and the agency environmental scan development.	09/30/2020
Complete training of senior leaders on behavior and how to effect cultural change as a part of the transformation initiative.	09/30/2020 <sup>5</sup>

## 2-2 Workforce Development and Management

The NRC implemented a Strategic Workforce Planning (SWP) process to improve workforce development to meet its near- and long-term work demands. This process projects the amount and type of work anticipated in the next 5 years and identifies the workforce needs in order to perform it. 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 (Q3 FY 2020)

<b>Workforce Development and Management Activities</b>	<b>Projected Completion Date</b>	<b>Completion Date</b>
Onboard entry-level hires for NRC's new training program, the Nuclear Regulator Apprenticeship Network, and begin 14 weeks of initial training in areas such as regulatory and technical fundamentals.	06/22/2020	06/22/2020
Continue SWP agencywide implementation by developing strategies and action plans based on the workforce supply analysis and a prioritized list of workforce gaps and surpluses.	06/27/2020	06/26/2020

### Projected Activities for the Next Two Reporting Periods (Q4 FY 2020 and Q1 FY 2021)

<b>Projected Workforce Development and Management Activities</b>	<b>Projected Completion Date</b>
Complete Agency Environmental Scan to support 2021 SWP activities.	09/30/2020

## 2-3 Accident Tolerant Fuel

The NRC continues to make significant progress in its preparation for licensing reviews of Accident Tolerant Fuel (ATF) designs for use in U.S. commercial power reactors. The NRC

<sup>4</sup> The Commission briefing on the staff's transformation activities was previously scheduled for May 18, 2020, but was postponed due to the COVID-19 PHE.

<sup>5</sup> The training of senior leaders was previously scheduled for completion on June 30, 2020 but would be rescheduled.

staff is currently executing the ATF project plan (Agencywide Documents Access and Management System (ADAMS) Accession No. [ML19301B166](#)) and is preparing for imminent ATF submittals from fuel vendors in fall 2020. The NRC is currently reviewing an ATF-related request to allow the transportation of fuel rods with chromium-coated cladding and fuel rods enriched to up to 7 percent. Additionally, the NRC recently approved a license amendment to allow an enrichment facility to enrich fuel to 5.5 percent.

The NRC staff demonstrated the ability to perform confirmatory calculations for ATF applications in June 2020 with the use of the NRC’s fuel rod thermal-mechanical Fuel Analysis under Steady-state and Transients (FAST) code. NRC staff used FAST during an audit to complete confirmatory calculations of an ATF design (ADAMS Accession No. [ML20098G965](#)). These calculations demonstrated the code’s readiness for analysis of coated cladding and doped fuel ATF technologies. The FAST code is also currently being updated to include data transmitted to the NRC by a fuel vendor for their coated cladding design. This will ensure that FAST is ready for confirmatory calculations that may be needed for future licensing reviews.

Additionally, the NRC, along with the Department of Energy (DOE), Electric Power Research Institute, fuel vendors, and international counterparts, is preparing to initiate the Framework for Irradiation Experiments (FIDES) with the support of the Nuclear Energy Agency. This international cooperative research framework will allow for multiple, joint experimental programs for nuclear fuel and reactor materials, including issues related to ATF and higher burnup. Participation in this cooperative framework offers access to experimental data at a reduced cost, when compared to individual undertakings. The initial agreement term for the FIDES Framework is from 2021 to 2023, and it is expected to support 4-6 joint experimental programs at irradiation facilities worldwide, including one at the Idaho National Laboratory.

Activities Planned and Completed for the Reporting Period (Q3 FY 2020)

ATF Activities	Projected Completion Date	Completion Date
Complete a revision to a certificate of compliance from GE Hitachi Nuclear Energy to allow transport of irradiated BWR ATF fuel including FeCrAl cladding (ADAMS Package No. <a href="#">ML20108F553</a> ).	04/30/2020	04/23/2020
Complete safety evaluation regarding URENCO Louisiana Energy Services’ license amendment request (LAR) to allow enrichment up to 5.5 percent (ADAMS Accession No. <a href="#">ML20119A043</a> ).	05/21/2020	05/19/2020
Conduct a pre-application meeting for a new uranium hexafluoride transportation package with between 10 and 20 percent enrichment (ADAMS Accession No. <a href="#">ML20171A774</a> ).	06/10/2020	06/10/2020



Projected Activities for the Next Two Reporting Periods (Q4 FY 2020 and Q1 FY 2021)

Projected ATF Activities	Projected Completion Date
Update of the public ATF Web page. <sup>6</sup> This is being enhanced to provide significantly more information to all stakeholders in a more user-friendly format with infographics and embedded links.	07/31/2020
Conduct high burnup fuel public workshop. This workshop will relay initial NRC expectations to the nuclear industry for licensing submittals for high burnup fuels, including clarification on the expected content and estimated timelines for submission.	08/31/2020
Complete review of ATF-related request to allow the transportation of fuel rods with chromium-coated cladding, doped pellets, and fuel rods enriched to up to 7 percent.	08/31/2020
Hold phenomena identification and ranking exercise for severe accidents. This exercise will provide information on the performance of various ATF concepts, high burnup fuel, and fuel with enrichment above 5% in severe reactor accidents to support refinement of regulatory guidance.	09/31/2020

**2-4 Digital Instrumentation and Control**

The NRC staff continues to complete digital instrumentation and control (DI&C) infrastructure improvements to address (1) Protection against Common Cause Failure; (2) Considering DI&C under 10 CFR 50.59, “Changes, Tests, and Experiments”; (3) Commercial Grade Dedication of Digital Equipment; and (4) Assessment for Modernization of the DI&C Regulatory Infrastructure.<sup>7</sup>

With the issuance of Regulatory Guide (RG) 1.187, “Guidance for Implementation of 10 CFR 50.59, ‘Changes, Tests, and Experiments,’” the NRC staff has completed its infrastructure improvements in this area. Given the extensive changes to this regulatory guide made after the public comment period, the staff is conducting an additional comment period from July 7, 2020, to August 6, 2020; will perform additional inspector training; and will observe industry workshops to ensure consistent application. The staff will no longer report on this item in future quarterly reports.

The NRC staff provided feedback to Nuclear Energy Institute (NEI) on draft NEI 17-06, “Guidance on Using IEC 61508 SIL Certification To Support the Acceptance of Commercial Grade Digital Equipment for Nuclear Safety Related Applications,” on December 19, 2019, and additional feedback following an April 1, 2020, public meeting. On July 9, 2020, the staff held a public meeting to discuss possible ways to address this feedback. NEI intends to revise NEI 17-06, have an additional public interaction on the revised document, and submit NEI 17-06 by the end of calendar year (CY) 2020 for NRC endorsement.

The NRC staff is now preparing for anticipated digital modernization LARs, including pre-application activities with potential applicants. The staff continues to have monthly meetings

<sup>6</sup> <https://www.nrc.gov/reactors/atf.html>.

<sup>7</sup> The staff completed its assessment in December 2019 (ADAMS Accession No. [ML19351D975](#)) and developed a proposed end state of the full set of DI&C RGs (ADAMS Accession No. [ML20100J219](#)). The staff is currently developing schedules and milestones for near-term RG updates that it will manage through its routine RG update process and will no longer report on this item.

with DOE regarding its support for a LAR that Exelon Generation Company, LLC (Exelon) plans to submit in June 2021, for an extensive upgrade at the Limerick Generating Station. The staff held its first preapplication meeting with Exelon on June 12, 2020. The NRC will incorporate appropriate milestones for these activities into future quarterly reports.

Activities Planned and Completed for the Reporting Period (Q3 FY 2020)

DI&C Activities	Projected Completion Date	Completion Date
MP2A: Endorse NEI 96-07, Appendix D, "Supplemental Guidance for Application of 10 CFR 50.59 to Digital Modifications," through an update to RG 1.187, "Guidance for Implementation of 10 CFR 50.59, 'Changes, Tests, and Experiments.'"		
<ul style="list-style-type: none"> <li>Hold a public meeting to discuss feedback (ADAMS Accession No. <a href="#">ML20135H231</a>).</li> </ul>	04/27/2020	04/27/2020
<ul style="list-style-type: none"> <li>Hold a public meeting to discuss resolution of public comments (ADAMS Accession No. <a href="#">ML20196L751</a>).</li> </ul>	06/29/2020	06/29/20 <sup>8</sup>
<ul style="list-style-type: none"> <li>The Advisory Committee on Reactor Safeguards (ACRS) review of RG 1.187 (ADAMS Accession No. <a href="#">ML20174A563</a>).</li> </ul>	06/30/2020	05/20/2020 and 06/03/2020 <sup>9</sup>
<ul style="list-style-type: none"> <li>Final publication of RG 1.187 (ADAMS Accession No. <a href="#">ML20125A730</a>).</li> </ul>	07/31/2020	06/30/2020
MP3: Endorse 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 an RG.		
<ul style="list-style-type: none"> <li>Hold a public meeting to discuss NRC comments on pre-endorsement draft NEI 17-06 Revision B (ADAMS Accession No. <a href="#">ML20083F149</a>).</li> </ul>	04/01/2020	04/01/2020

Projected Activities for the Next Two Reporting Periods (Q4 FY 2020 and Q1 FY 2021)

Projected DI&C Activities	Projected Completion Date
MP1D: Update BTP 7-19, "Guidance for Evaluation of Diversity and Defense-In-Depth in Digital Computer Based Instrumentation and Control Systems."	
<ul style="list-style-type: none"> <li>Second ACRS Subcommittee Meeting.</li> </ul>	09/08/2020
<ul style="list-style-type: none"> <li>Hold a public meeting to discuss resolution of feedback.</li> </ul>	12/21/2020
<ul style="list-style-type: none"> <li>ACRS Full Committee Meeting.</li> </ul>	11/30/2020
<ul style="list-style-type: none"> <li>Submit BTP 7-19 for OMB clearance in preparation of final issuance.</li> </ul>	12/31/2020
MP3: Endorse 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 an RG.	

<sup>8</sup> The NRC staff held an additional public meeting just prior to the issuance of updated RG 1.187 to discuss the resolution of stakeholder feedback.

<sup>9</sup> An ACRS Subcommittee meeting was held on May 20, 2020, and an ACRS Full Committee meeting was held on June 3, 2020.

Projected DI&C Activities	Projected Completion Date
<ul style="list-style-type: none"> <li>Hold a public meeting for NEI to discuss resolution of staff comments (ADAMS Accession No. <a href="#">ML20183A258</a>).</li> </ul>	07/09/2020
<ul style="list-style-type: none"> <li>NEI to submit NEI 17-06 for NRC review.</li> </ul>	12/31/2020

## 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 assessment, coordination, and management direction for NRC activities. On June 16, 2020, the NRC staff provided an information paper to the Commission describing planned changes to the baseline inspection program for the AP1000 reactor design (ADAMS Accession No. [ML20058F491](#)). The planned changes consider the unique aspects of the AP1000 design and its use of passive safety systems.

During this reporting period, the NRC shifted to remote operations in response to the COVID-19 PHE. Construction inspection and licensing activities continued with only minor interruptions due to the successful application of technology for telework and remote access to licensee information. NRC inspectors have now been cleared to return to the Vogtle site in limited numbers to support important on-site inspections.

### Activities Planned and Completed for the Reporting Period (Q3 FY 2020)

Vogtle Electric Generating Plant Units 3 and 4 Activities	Projected Completion Date	Completion Date
Issue amendments for LARs 19-010 (ADAMS Accession No. <a href="#">ML20059N763</a> ), 19-014 (ADAMS Accession No. <a href="#">ML20050J685</a> ), 19-019 (ADAMS Accession No. <a href="#">ML20054B790</a> ), and 19-020 (ADAMS Accession No. <a href="#">ML20057E069</a> ).	06/30/2020	05/12/2020
Issue information paper to the Commission with planned changes to the baseline inspection program for AP1000 reactors (ADAMS Accession No. <a href="#">ML20058F491</a> ).	06/30/2020	06/16/2020
Hold a public meeting on the role and activities of the VRG (ADAMS Accession No. <a href="#">ML20167A006</a> ).	09/30/2020	06/18/2020

### Projected Activities for the Next Two Reporting Periods (Q4 FY 2020 and Q1 FY 2021)

Projected Vogtle Electric Generating Plant Units 3 and 4 Activities	Projected Completion Date
Develop a supplement to the AP1000 Transition Plan that details the current NRC plan for the transition of Vogtle Unit 3 from the construction reactor oversight program to the operating reactor oversight program.	08/31/2020
Issue amendments for LARs 20-001 20-002, and 20-2003 (provided the requisite findings are made).	09/30/2020

Projected Vogtle Electric Generating Plant Units 3 and 4 Activities	Projected Completion Date
Issue memorandum to inform the Commission of the status of Vogtle Unit 3 construction. This memo will provide updates on inspections, tests, analyses, and acceptance criteria (ITAAC) completion, inspection activities (including construction and operational programs), licensing activities, and any current challenges.	09/30/2020

NRC Inspections and ITAAC<sup>10</sup> Reviews for the Reporting Period (Q3 FY 2020)

Inspections Completed <sup>11</sup>	ITAAC Inspected <sup>12</sup>	Number of ITAAC Remaining Requiring Inspection
84	47	255

ITAAC Reviews Completed for the Reporting Period Q3 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.

Unit	ITAAC ID No.	Received Date	Approval Date
Vogtle 4	3.3.00.06a	04/27/2020	04/29/2020
Vogtle 3	2.1.03.02a	04/24/2020	04/28/2020
Vogtle 4	2.2.03.08b.02	04/27/2020	04/28/2020
Vogtle 4	2.2.03.08c.iv.04	04/27/2020	04/28/2020
Vogtle 3	2.2.03.08c.i.02	03/16/2020	04/22/2020
Vogtle 3	E.3.9.05.01.04	04/17/2020	04/21/2020
Vogtle 3	3.3.00.06a	04/02/2020	04/09/2020
Vogtle 3	2.1.02.12a.ix	03/27/2020	04/01/2020
Vogtle 3	2.1.02.08d.iv	03/27/2020	04/01/2020
Vogtle 4	2.1.02.08d.iv	03/27/2020	04/01/2020
Vogtle 4	2.1.02.12a.ix	03/27/2020	04/01/2020
Vogtle 3	2.2.03.08c.i.03	05/11/2020	05/27/2020
Vogtle 3	2.2.03.09a.i	05/11/2020	05/27/2020
Vogtle 4	3.3.00.02g	05/15/2020	05/26/2020
Vogtle 3	2.5.05.03b	05/20/2020	05/26/2020

Vogtle Units 3 and 4 LAR Reviews Completed for the Reporting Period Q3 FY 2020

Number of LAR Reviews Forecast to be Completed in the Reporting Period	Number of LAR Reviews that were Completed in the Reporting Period
4	4

<sup>10</sup> The ITAAC closure information is available in the Vogtle Units 3 and 4 ITAAC Status Reports at <https://www.nrc.gov/reactors/new-reactors/oversight/itaac.html>.

<sup>11</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 can vary due to the fluidity of the construction schedule and what may be available for inspection as a result.

<sup>12</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.

## 2-6 NuScale Small Modular Reactor (SMR) Design Certification

On March 15, 2017, the NRC accepted the NuScale Power, LLC application for an 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). In February 2020, NuScale informed the NRC that NuScale had identified an issue with the emergency core cooling system (ECCS) actuating later than expected and resulting in higher containment water level accumulation than previously determined. Consequently, NuScale implemented design changes affecting the ECCS actuation timing and addressed concerns related to containment water level accumulation and boron dilution in the downcomer. The proposed design changes required NuScale to revise parts of its Final Safety Analysis Report (FSAR) and associated technical and topical reports, which required further NRC review. NuScale submitted the final design changes and supporting information to the NRC on May 20, 2020 (ADAMS Accession No. [ML20141L787](#)).

On May 1, 2020, the NRC issued a letter to NuScale (ADAMS Accession No. [ML20112F455](#)) updating the status and schedule for the NuScale review. The staff completed its review and presented the findings related to the proposed design changes to the ACRS in July 2020. As a result, Phase 5 is anticipated to be completed by July 31, 2020, rather than by June 23, 2020. The staff is currently on track for issuing the final safety evaluation and meeting the Phase 6 milestone by September 8, 2020. As of June 30, 2020, the staff had issued a total of 1,333 requests for additional information (RAIs), and the applicant has responded to all of them.

### Activities Planned and Completed for the Reporting Period (Q3 FY 2020)

NuScale SMR Design Certification Activities	Projected Completion Date	Completion Date
Complete audit of final FSAR changes to Chapter 6, 7, and 15 (ADAMS Accession No. <a href="#">ML20059N687</a> ).	04/03/2020	06/26/2020 <sup>13</sup>
ACRS Full Committee Meeting on NuScale's Boron Dilution, Return to Criticality, Probabilistic Risk Assessment (PRA), and Hydrogen and Oxygen Monitoring (ADAMS Accession No. <a href="#">ML20070R332</a> ).	04/08/2020	04/08/2020
ACRS Full Committee Meeting on NuScale's Boron Dilution and Technical Specifications (presentation by NuScale) (ADAMS Accession No. <a href="#">ML20136A245</a> ).	06/04/2020	06/04/2020

### Projected Activities for the Next Two Reporting Periods (Q4 FY 2020 and Q1 FY 2021)

Projected NuScale SMR Design Certification Activities	Projected Completion Date
ACRS Full Committee Meeting on NuScale's Boron Redistribution and Technical Specifications (presentation by NRC staff) (ADAMS Accession No. <a href="#">ML20170A337</a> ).	07/08/2020

<sup>13</sup> Completion of the audit was previously scheduled for April 3, 2020. The audit completion was extended to June 26, 2020, to allow NuScale to revise parts of its FSAR and associated technical and topical reports and for the NRC staff to review the information.

Projected NuScale SMR Design Certification Activities	Projected Completion Date
ACRS Full Committee Meeting on NuScale's boron redistribution, NuScale's design certification final letter, and lessons learned (ADAMS Accession No. <a href="#">ML20170A348</a> ).	07/25/2020
Complete Phase 5 of the safety review (ACRS Review of Advanced SER with No Open Items).	07/31/2020
Complete Phase 6 of the safety review (Final SER with No Open Items).	09/08/2020

## 2-7 Advanced Nuclear Reactor Technologies

The NRC is making significant progress in preparation for reviewing non-light-water-reactor (non-LWR) designs, consistent with the staff's vision and strategy (ADAMS Accession No. [ML16356A670](#)). The NRC staff is currently executing the implementation action plans to achieve non-LWR safety review readiness.<sup>14</sup> During this reporting period, all of the planned activities were completed on or ahead of schedule. The NRC staff issued a proposed rule to include new alternative emergency preparedness (EP) requirements for SMRs and other new technologies, and a rulemaking plan to develop a risk-informed, technology-inclusive regulatory framework for advanced reactors. The public comment period is open until September 25, 2020. The NRC also provided options and a recommendation to the Commission in a voting paper on possible changes to guidance documents to address population-related siting considerations for advanced reactors. Finally, the NRC issued RG 1.233, "Guidance for a 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," to provide guidance on the licensing basis and content of applications for non-LWRs designs.

The NRC's public Website lists the open and resolved technical and policy issues related to SMRs and non-LWRs and is updated periodically to show the status of the issues (<https://www.nrc.gov/reactors/new-reactors/smr.html#techPolicyIssues>). The NRC holds periodic stakeholder meetings to discuss non-LWR topics of interest. A list of the meetings that the NRC has conducted to date can be found on the NRC's public Website (<https://www.nrc.gov/reactors/new-reactors/advanced.html#stakeholder>).

### Activities Planned and Completed for the Reporting Period (Q3 FY 2020)

Advanced Nuclear Reactor Technologies Activities	Projected Completion Date	Completion Date
Complete draft safety evaluation for Tristructural Isotropic (TRISO) topical report to support ACRS meeting (ADAMS Package No. <a href="#">ML20085J410</a> ).	04/30/2020	04/07/2020
Issue draft technology-inclusive, risk-informed, and performance-based design review guide for DI&C for advanced reactors (ADAMS Accession No. <a href="#">ML20045D302</a> ).	04/30/2020	04/08/2020

<sup>14</sup> The NRC's public Website lists the implementation action plans and is updated periodically to show the status of these activities (<https://www.nrc.gov/reactors/new-reactors/advanced.html#advSumISR>).

<b>Advanced Nuclear Reactor Technologies Activities</b>	<b>Projected Completion Date</b>	<b>Completion Date</b>
Issue rulemaking plan for technology-inclusive regulatory framework for optional use by applicants for new commercial advanced reactor licenses (ADAMS Accession No. <a href="#">ML19340A056</a> ).	04/30/2020	04/13/2020
Develop proposed policy on population-related siting considerations for advanced reactors and issue SECY-20-0045, "Population Related Siting Considerations for Advanced Reactors" for Commission consideration (ADAMS Package No. <a href="#">ML19262H055</a> ).	05/30/2020	05/08/2020
Publish EP for SMRs and other new technologies proposed rule in the <i>Federal Register</i> (ADAMS Accession No. <a href="#">ML20041C665</a> ).	05/30/2020	05/12/2020
Complete scoping process for development of a Generic Environmental Impact Statement for the construction and operation of advanced nuclear reactors.	06/30/2020	06/30/2020
Develop report on technical and licensing considerations for micro-reactors by Sandia National Laboratory (SNL) (ADAMS Accession No. <a href="#">ML20156A101</a> ).	08/31/2020	04/01/2020
Develop report on remote and autonomous operations of advanced reactors by SNL (ADAMS Accession No. <a href="#">ML20175A117</a> ).	09/30/2020	06/30/2020
Develop guidance for the assessment of tritium and strategies for its detection and control in molten salt reactors (MSRs) and fluoride salt-cooled high temperature reactors prepared by Argonne National Laboratory (ANL) (ADAMS Accession No. <a href="#">ML20157A155</a> ).	09/30/2020	05/31/2020
Issue Final RG 1.233, "Guidance for a 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" (ADAMS Accession No. <a href="#">ML20091L698</a> ).	09/30/2020	06/09/2020

Projected Activities for the Next Two Quarters (Q4 FY 2020 and Q1 FY 2021)

<b>Projected Advanced Nuclear Reactor Technologies Activities</b>	<b>Projected Completion Date</b>
Issue SECY paper on micro-reactors. The SECY paper will discuss potential licensing and policy issues specific to micro-reactors.	08/30/2020 <sup>15</sup>
Issue final safety evaluation for TRISO topical report.	08/30/2020

<sup>15</sup> Issuance delayed from the original projected date of July 30, 2020, due to higher priority activities.

Projected Advanced Nuclear Reactor Technologies Activities	Projected Completion Date
Issue report on non-LWR source terms guidance in "Risk-Informed, Performance-Based, Technology-Inclusive Regulatory Infrastructure: Technology-Inclusive Determination of Mechanistic Source Terms for Offsite Dose-Related Assessments for Advanced Nuclear Reactor Facilities" prepared by Idaho National Laboratory.	09/30/2020
Develop guidance on fuel qualification criteria for MSRs by Oak Ridge National Laboratory (ORNL).	09/30/2020
Issue four technical input reports for NRC's review of American Society of Mechanical Engineers Boiler and Pressure Vessel Code Section III Division 5 by Pacific Northwest National Laboratory (PNNL), ORNL, ANL, and NUMARK Associates, Inc..	09/30/2020
Issue final technology-inclusive, risk-informed, and performance-based design review guide for instrumentation and controls systems for advanced reactors.	09/30/2020
Issue white paper with proposed fuel qualification methodology to provide guidance for non-LWR developers on qualification of fuel under the Nuclear Energy Innovation and Modernization Act (NEIMA).	12/31/2020
Issue Final Interim Staff Guidance, "Environmental Considerations Associated with Micro-reactors."	12/31/2020
Issue report on Environmental Impacts of Non-LWR Fuel Cycle and Transportation-NRC prepared by PNNL.	12/31/2020
Issue Code Assessment Report, Volume 4, on Dose Assessment.	12/31/2020
Issue Material Control and Accounting guidance for Category II facilities (NUREG-2159).	12/31/2020

## 2-8 Oklo Power LLC (Oklo) Combined License Application for the Aurora Compact Fast Reactor

The NRC began pre-application discussions with Oklo in November 2016 on an advanced reactor design that uses liquid metal for heat transport. The proposed Aurora design would use heat pipes to transport heat from the reactor core to a power conversion system, where it would then be used to generate electricity. On March 11, 2020, Oklo submitted a custom combined license (COL) application<sup>16</sup> for the Aurora reactor to the NRC (ADAMS Accession No. [ML20075A000](#)). The NRC staff has completed a review and determined that the application is acceptable for docketing and is proceeding with the safety and environmental reviews. As part of the acceptance review, the staff conducted a virtual audit on May 27, 2020 (ADAMS Accession No. [ML20079L202](#)). The purpose of the audit was to examine the supporting information for the application to ensure sufficient information was presented to support the custom COL application and that the information provides the level of detail necessary for the staff to conduct an efficient and risk-informed review. On June 5, 2020, the NRC issued a letter to Oklo (ADAMS Accession No. [ML20149K616](#)) indicating that the staff plans to complete the review in a two-step process. In Step 1, the NRC staff plans to engage Oklo in public meetings, conduct regulatory audits, and issue requests for additional information to efficiently align on four key safety and design aspects of the proposed licensing basis. After gaining alignment on

<sup>16</sup> A custom COL application provides both the design information that would be provided by a certified design and the site-specific information provided with a COL application.



the key aspects in Step 1, NRC staff will have defined the scope of the full detailed technical review and will develop a schedule to efficiently perform the review in Step 2. Successful completion of Step 2 will involve the staff making its reasonable assurance findings regarding the custom COL application for the Aurora design, successful completion of the ACRS review, issuance of the staff's Final SER, and holding the mandatory hearing.

The NRC holds periodic public meetings to discuss the review of the custom Aurora Powerhouse. A list of the meetings can be found on the NRC's public Web site (<https://www.nrc.gov/reactors/new-reactors/col/aurora-oklo/public-meetings.html>).

**Activities Planned and Completed for the Reporting Period (Q3 FY 2020)**

<b>Oklo COL Review Activities</b>	<b>Projected Completion Date</b>	<b>Completion Date</b>
Issue audit plan for acceptance review audit (ADAMS Accession No. <a href="#">ML20079L202</a> ).	04/01/2020	04/01/2020
Complete audit of application supporting information.	05/22/2020	05/27/2020
Determination on acceptability for docketing of the Oklo COL application for the Aurora reactor (ADAMS Accession No. <a href="#">ML20149K616</a> ).	06/05/2020	06/05/2020

**Projected Activities for the Next Two Quarters (Q4 FY 2020 and Q1 FY 2021)<sup>17</sup>**

<b>Projected Oklo COL Review Activities</b>	<b>Projected Completion Date</b>
Hold initial public meeting to discuss the methodology used in the analysis and evaluation of the maximum credible accident.	08/04/2020
Hold initial public meeting to discuss the process to be used for classifying structures, systems, and components (SSCs) in the Aurora design and the treatment for each classification of SSCs.	08/05/2020
Hold initial public meeting to discuss scope and application of the Quality Assurance Program.	08/31/2020
Complete an audit on the methodology used in the analysis and evaluation of the maximum credible accident.	10/06/2020
Hold second public meeting to discuss the methodology used in the analysis and evaluation of the maximum credible accident.	10/31/2020
Hold second public meeting to discuss the process to be used for classifying SSCs in the Aurora design and the treatment for each classification of SSCs.	10/31/2020
Complete an audit on the scope and application of the Quality Assurance program.	10/31/2020
Complete initial outreach to local stakeholders regarding the environmental impacts.	10/31/2020
Complete Step 1 alignment with Oklo on key technical issues.	11/05/2020
Issue letter documenting the applicable regulations.	11/05/2020

<sup>17</sup> The public meeting dates are subject to change. The NRC's public Website is updated periodically to show the status of the meetings (<https://www.nrc.gov/reactors/new-reactors/col/aurora-oklo/public-meetings.html>).

## 2-9 Reactor Oversight Process

The Reactor Oversight Process (ROP) is a risk-informed, performance-based oversight program that contains provisions for continuous self-assessment and improvement. The staff developed recommendations to make enhancements to the ROP in SECY-19-0067, “Recommendations for Enhancing the Reactor Oversight Process,” (ADAMS Accession No. [ML19070A050](#)) which are being considered by the Commission. The staff continues to assess and improve the ROP as part of its normal work practices through the NRC’s Transformation activities, stakeholder correspondence, feedback from ROP public meetings, and the annual ROP self-assessment program.

### Activities Planned and Completed for the Reporting Period (Q3 FY 2020)

Reactor Oversight Process Activities	Projected Completion Date	Completion Date
Define the problem statement and revise the charter for a comprehensive review of problem identification and resolution inspection program (ADAMS Accession No. <a href="#">ML19212A017</a> ).	04/30/2020	05/15/2020 <sup>18</sup>
Issue revision to Inspection Manual Chapter 0307, “Reactor Oversight Process Self-Assessment Program” (ADAMS Accession No. <a href="#">ML19274B865</a> ).	04/30/2020	05/29/2020

### Projected Activities for the Next Two Quarters (Q4 FY 2020 and Q1 FY 2021)

Projected Reactor Oversight Process Activities	Projected Completion Date
Complete comprehensive review of problem identification and resolution program and issue report.	09/30/2020
Complete effectiveness review of the cross-cutting issues process and issue report.	10/31/2020 <sup>19</sup>
Issue revision to Inspection Procedure 95001, “Supplemental Inspection Response to Action Matrix Column 2 Inputs.”	10/31/2020

## 2-10 Backfit

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 increased protection warrants the direct and indirect costs of implementation. There are similar requirements, referred to as “issue finality,” that apply when there are new or amended requirements for licenses, permits, and design approvals and certifications issued under 10 CFR Part 52. The Commission clarified its backfitting and issue finality policy as well as its policy on “forward fits,” which are requirements imposed as a condition of agency approval of a licensee request, in NRC

<sup>18</sup> The NRC staff reviewed the existing charter and determined it was adequate to continue performing a review of the problem identification and resolution inspection program.

<sup>19</sup> Completion of the effectiveness review was previously scheduled for October 31, 2019, to be followed by the issuance of the report 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.

Management Directive 8.4, “Management of Backfitting, Forward Fitting, Issue Finality, and Information Requests.” The NRC completed draft NUREG-1409, “Backfitting Guidelines,” Revision 1, in March 2020 and issued a notice of availability in the *Federal Register* for public comment (ADAMS Accession No. [ML18109A498](#)). This revision would provide additional guidance for the NRC staff on how to implement the Commission’s backfitting and forward fitting policy, including how to process contested violations based on the basis of unjustified backfitting. Training was provided to inspection staff on May 28, 2020.

Activities Planned and Completed for the Reporting Period (Q3 FY 2020)

<b>Backfit Activities</b>	<b>Projected Completion Date</b>	<b>Completion Date</b>
Hold a public meeting or teleconference to discuss the contents of draft NUREG-1409, Revision 1 with stakeholders.	05/29/2020	04/28/2020

Projected Activities for the Next Two Quarters (Q4 FY 2020 and Q1 FY 2021)

<b>Projected Backfit Activities</b>	<b>Projected Completion Date</b>
Receive public comments on draft NUREG-1409, Revision 1.	07/31/2020
Evaluate public comments and prepare NUREG-1409, Revision 1 for internal agency concurrence.	09/30/2020
Provide NUREG-1409, Revision 1 to the Commission for review.	12/31/2020

**2-11 Risk-Informed Activities**

The NRC staff continues to make progress to advance the use of risk insights more broadly to inform decisionmaking. There are numerous activities ranging in scope from agencywide initiatives, such as the “Be riskSMART” transformation initiative mentioned in section 2-1, to the advanced reactor risk-informed activities listed in section 2-7 of this enclosure, to individual undertakings in program and corporate offices.<sup>20</sup> Specifically, the staff further developed the agencywide Be riskSMART risk-informed decisionmaking framework and continued to illustrate its applicability throughout the agency in the technical, legal, and corporate arenas. As part of the Be riskSMART initiative, the staff is tracking its use of risk-informed decisionmaking.

Activities Planned and Completed for the Reporting Period (Q3 FY 2020)

<b>Risk-Informed Activities</b>	<b>Projected Completion Date</b>	<b>Completion Date</b>
Issue the recommendations on building smarter fuel cycle licensing programs (ADAMS Accession No. <a href="#">ML20099F352</a> ).	04/30/2020	04/30/2020

<sup>20</sup> The NRC maintains a listing of risk-informed activities that is updated annually at <https://www.nrc.gov/about-nrc/regulatory/risk-informed/rpp.html>.

Risk-Informed Activities	Projected Completion Date	Completion Date
Complete a remote audit of the Pressurized-Water Reactor Owners Group's (PWROG's) effort to collect and analyze operating experience data that will be used to develop equipment reliability estimates for diverse and flexible coping strategies (FLEX) equipment, which was installed as a post-Fukushima safety enhancement. The PWROG's effort, and the NRC's audit, resolves one of the few remaining technical challenges to crediting FLEX in probabilistic risk assessment models (ADAMS Accession No. <a href="#">ML20155K827</a> ).	05/31/2020	05/04/2020
Conduct stakeholder meeting on proposed new Risk-Informed Process for Exemptions (RIPE) initiative. RIPE leverages current regulations and risk initiatives to allow reactor licensees to justify plant-specific exemptions using a streamlined NRC review process. This process can be used to address compliance issues that have minimal safety impact and are of low safety significance (ADAMS Accession No. <a href="#">ML20161A040</a> ).	05/31/2020	05/14/2020
Issue letter on industry use of focused cyber guidance to better risk-inform rule implementation for emergency preparedness digital assets, based on lessons learned from implementation and oversight of the NRC's cyber security requirements (ADAMS Accession No. <a href="#">ML20129J981</a> ).	05/31/2020	05/19/2020
Publish Draft Revision 3 to RG 1.200, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities" for public comment (ADAMS Accession No. <a href="#">ML19308B636</a> ).	06/30/2020	06/26/2020
Issue revised Office of Nuclear Reactor Regulation (NRR) Instruction LIC-206, "Integrated Risk-Informed Decision- Making for Licensing Reviews."	06/30/2020	06/26/2020
Complete initial outreach to each major program office on the Be riskSMART risk-informed decisionmaking framework using examples specific to each major functional area (technical, legal, corporate) including subsequent license renewal, security, fee billing, and inspection.	06/30/2020	06/30/2020

Projected Activities for the Next Two Quarters Q4 FY 2020 and Q1 FY 2021

Projected Risk-Informed Activities	Projected Completion Date
Provide a voting paper to the Commission with options for a risk-informed, holistic approach to credit realistic law enforcement response, operator action, and use of FLEX equipment.	08/31/2020

Projected Risk-Informed Activities	Projected Completion Date
Issue a letter on industry use of focused cyber security guidance to better risk-inform rule implementation for balance of plant digital assets, based on lessons learned from implementation and oversight of the NRC's cyber security requirements.	09/30/2020
Document the Be riskSMART risk-informed decisionmaking framework in agency guidance.	09/30/2020
Modify risk-informed decisionmaking curriculum to incorporate the Be riskSMART framework.	09/30/2020
Finalize RIPE initiative and NRC staff guidance on the initiative.	09/30/2020
Brief ACRS on proposed final Draft Revision 3 to RG 1.200, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk- Informed Activities" for public comment (ADAMS Accession No. <a href="#">ML19308B636</a> ).	11/05/2020
Implement the near-term recommendations on building a smarter fuel cycle licensing program (ADAMS Accession No. <a href="#">ML20184A267</a> ).	11/30/2020 <sup>21</sup>
Implement the recommendations on building a smarter fuel cycle inspection program (ADAMS Accession No. <a href="#">ML20183A242</a> ).	12/31/2020
Implement revisions to the ISFSI inspection guidance.	12/31/2020
Publish Integrated Human Error Analysis System for Event and Condition Analysis Human Reliability Analysis Method workshop report.	12/31/2020

## 2-12 Coronavirus Disease 2019 Public Health Emergency

On January 31, 2020, the U.S. Department of Health and Human Services declared a PHE for the United States to aid the nation's healthcare community in responding to COVID-19. On March 11, 2020, the COVID-19 outbreak was characterized as a pandemic by the World Health Organization. On that same day, the NRC COVID-19 Task Force began developing and implementing precautionary measures in response to the PHE to protect the health and safety of our workforce consistent with guidance provided by the Federal Government, including the Centers for Disease Control and Prevention (CDC), as well as considerations of State and local conditions. Throughout the PHE, the NRC continues to protect public health and safety and the environment. The NRC is monitoring the effects of the COVID-19 PHE on NRC-licensed activities as well as actions taken in response to State, local, and site-specific conditions. The NRC is poised to take additional appropriate steps as needed.

### NRC Re-Occupancy of Facilities

On June 15, 2020, the NRC moved to Phase 1 of the Re-Occupancy Plan at NRC headquarters, all four regions, and the Technical Training Center (TTC). During Phase 1, building occupancy only moderately increased thereby facilitating NRC efforts to be consistent with CDC, OSHA, and Office of Management and Budget health and safety guidance (e.g., social distancing and use of personal protective supplies). On July 12, 2020, the NRC headquarters, Region I, and Region III transitioned to Phase 2 while Region II, Region IV, and the TTC remain in Phase 1 due to consideration of State and local conditions. Enhanced

<sup>21</sup> The original projected date of September 30, 2020 for implementing the recommendations on building a smarter fuel cycle licensing program has been updated to reflect the dependence on completing other priority activities associated with the near-term recommendations. Additionally, the activity has been updated to include "near-term" to clarify that this activity is associated with only the near-term recommendations.

screening (i.e., temperature checks and access questions) does not apply to facilities in Phase 2 and building occupants are instead requested to self-screen prior to coming to an NRC facility.

### Licensing and Oversight Items of Interest

The NRC staff has taken a number of steps to identify areas of our regulations that are challenging during the PHE, and the areas where temporary flexibilities, such as exemptions, would not compromise the ability of licensees to maintain the safe and secure operation of NRC-licensed facilities. The NRC staff has communicated the processes available to licensees for requesting these flexibilities in a transparent way through public communications, such as teleconferences and letters. In addition, these processes and the approved flexibilities are posted and updated on the NRC public website (<https://www.nrc.gov/about-nrc/covid-19/>).

As of June 30, 2020, the NRC has conducted 29 public teleconferences and webinars to address COVID-19 PHE concerns and 179 virtual public meetings on NRC business. The NRC has also developed 29 Web pages devoted to the regulatory activities taken in response to the COVID-19 PHE. Specific pages related to [nuclear power plant licensees](#) and [nuclear materials licensees](#) have been developed to keep the public informed on how the NRC is adapting its regulatory approach. Between March 31, 2020, and June 20, 2020, the NRC issued 132 licensing actions granting temporary flexibilities to maintain the safe and secure operation of nuclear reactor and nuclear materials licensees. A complete list of licensing actions approved by the NRC in response to the COVID-19 PHE is available on the NRC public Web site at <https://www.nrc.gov/about-nrc/covid-19/>.

With respect to security, on July 9<sup>22</sup> and 16<sup>23</sup>, 2020, the NRC hosted public meetings with stakeholders, including representatives from NEI, NextEra, Entergy, and the Union of Concerned Scientists, to discuss considerations for resumption of NRC-conducted Force-on-Force (FOF) exercises and the plan for FOF inspection activities during the COVID-19 PHE. During the meeting, the NRC staff discussed considerations for resuming inspections and potential measures that could be implemented to mitigate certain safety concerns related to the PHE, as well as the staff's proposed path forward. The NRC staff also stated that multiple factors would be considered in making decisions regarding the resumption and prioritization of inspection activities, including State, local, and site-specific conditions. The NRC staff has temporarily deferred FOF security inspections, which will resume when conditions permit and is currently finalizing an inspection procedure for limited-scope tactical response drills that would be used until conditions permit the safe resumption of full-scale FOF inspections.

### Regulatory Activities Taken in Response to the COVID-19 PHE

Licensee Type	Number of COVID-19 Requests Approved During the Reporting Period	Average Number of Days to Approve COVID-19 Requests <sup>24</sup>
Power Reactor	67	12
Non-Power Reactor	6	14

<sup>22</sup> The July 9, 2020, public meeting summary, NRC presentation, and meeting decision summary are available at ADAMS Accession Nos. [ML20197A033](#), [ML20188A177](#), and [ML20196L994](#), respectively.

<sup>23</sup> The July 16, 2020, public meeting summary, NRC presentation, and meeting decision summary are available at ADAMS Accession Nos. [ML20175A681](#), [ML20167A109](#), and [ML20169A688](#), respectively.

<sup>24</sup> The average is calculated based on the date received and date completed, which may include review time of supplemental information submitted after the date received.

Licensee Type	Number of COVID-19 Requests Approved During the Reporting Period	Average Number of Days to Approve COVID-19 Requests <sup>24</sup>
Other (e.g., topical reports)	3	20
Decommissioning of Nuclear Facilities and Uranium Recovery	6	12
Storage and Transportation of Spent Nuclear Fuel	5	25
Fuel Cycle Facilities	8	29
Medical, Industrial and Academic Uses of Nuclear Materials and Agreement States	27	15

### Enclosure 3 – Summary of Activities

#### 3-1 Reactor Oversight Process Findings

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

Location	Number of Findings	CY 2017	CY 2018	CY 2019	CY 2020 (YTD)
<b>Nationally</b>	<b>Total</b>	560	478	440	83 <sup>25</sup>
<b>Region I</b>	Green	126	107	95	13
	White	2	1	0	0
	Yellow	0	0	0	0
	Red	0	0	0	0
	Greater Than Green Security	0	0	0	0
	<b>Total</b>	<b>128</b>	<b>108</b>	<b>95</b>	<b>13</b>
	No. of Units Operating During CY	25	25	24	22 <sup>26</sup>
<b>Region II</b>	Green	119	113	110	23
	White	3	0	1	1
	Yellow	0	0	0	0
	Red	0	0	0	0
	Greater Than Green Security	2	0	0	1
	<b>Total</b>	<b>124</b>	<b>113</b>	<b>111</b>	<b>25</b>
	No. of Units Operating During CY	33	33	33	33
<b>Region III</b>	Green	133	110	96	14
	White	4	2	1	0
	Yellow	0	0	0	0

<sup>25</sup> The inspection reports for the second quarter of CY 2020 will continue to be finalized through August 15, 2020. The report for the next reporting period will be updated to include any additional findings from the second quarter of CY 2020.

<sup>26</sup> The reduction of two units for CY 2020 reflects the permanent shutdown of Pilgrim Nuclear Station on May 31, 2019, and Three Mile Island, Unit 1, on September 20, 2019. Additionally, Indian Point Nuclear Generating Unit 2 permanently ceased operations on April 30, 2020, but will remain counted in this table until the conclusion of CY 2020 as it transitions to decommissioning.

Location	Number of Findings	CY 2017	CY 2018	CY 2019	CY 2020 (YTD)
	Red	0	0	0	0
	Greater Than Green Security	0	0	0	0
	<b>Total</b>	<b>137</b>	<b>112</b>	<b>97</b>	<b>14</b>
	No. of Units Operating During CY	23	23	23	23
<b>Region IV</b>	Green	167	145	137	31
	White	2	0	0	0
	Yellow	0	0	0	0
	Red	0	0	0	0
	Greater Than Green Security	2	0	0	0
	<b>Total</b>	<b>171</b>	<b>145</b>	<b>137</b>	<b>31</b>
	No. of Units Operating During CY	18	18	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 LARs, as they are addressed separately in section 3-3. The total inventory of licensing actions is the 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>27</sup>	Percentage of Licensing Actions Completed Prior to the Established Schedule <sup>28</sup>
Q4 FY 2019	160	72	120	100%	96%
Q1 FY 2020	170	40	37	100%	89%
Q2 FY 2020	173	96	82	100%	94%
Q3 FY 2020 <sup>29</sup>	205	183	158	100%	91%

<sup>27</sup> Excludes unusually complex and Fukushima-related licensing actions accepted or initiated prior to July 13, 2019 (consistent with previous monthly reports).

<sup>28</sup> The established scheduled is the schedule communicated to the licensee and made publicly available at the completion of the acceptance review.

<sup>29</sup> Inventory has been updated to include operating Non-Power Production and Utilization Facility licensing actions beginning with Q3 FY2020 (Inventory – 8 Actions, Initiated Actions – 6, and Completed Actions – 6).



New 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	Percentage of Licensing Actions Completed Prior to the Established Schedule
Q4 FY 2019	7	0	2	100%	100%
Q1 FY 2020	5	2	0	N/A	N/A
Q2 FY 2020	3	0	1	100%	100%
Q3 FY 2020	8	5	0	N/A	N/A

Fuel Facilities<sup>30</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
Q4 FY 2019	4	3	0	N/A	N/A
Q1 FY 2020	6	3	1	100%	100%
Q2 FY 2020	6	4	4	100%	100%
Q3 FY 2020	4	3	5	100%	100%

**3-3 Licensing Amendment Request Reviews**

The tables below provide the status of LARs organized by licensing program. Consistent with Section 102(c) of NEIMA, the LARs referenced in this section include “requested activities of the Commission” for which the NRC staff issue a final safety evaluation. The total inventory is the number of open LARs at the end of the quarter. LARs 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>30</sup> Corrections were made to previous quarters due to quality checking older records and formats, to present the most accurate data to date.

### 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 <sup>31</sup>	Percentage of LAR Reviews Completed Prior to the Established Schedule <sup>32</sup>
Q4 FY 2019	400	129	123	100%	86%
Q1 FY 2020	400	97	122	100%	92%
Q2 FY2020	367	84	115	100%	91%
Q3 FY 2020 <sup>33</sup>	371	92	69	100%	94%

### New 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
Q4 FY 2019	14	8	2	100%	100%
Q1 FY 2020	12	4	6	100%	100%
Q2 FY 2020	6	2	8	100%	100%
Q3 FY 2020	5	3	4	100%	100%

### Fuel Facilities<sup>34</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
Q4 FY 2019	6	1	3	100%	100%
Q1 FY 2020 <sup>35</sup>	12	10	4	100%	100%
Q2 FY 2020	11	5	6	100%	100%
Q3 FY 2020	12	14	13	100%	93%

<sup>31</sup> Excludes unusually complex and Fukushima-related LARs accepted or initiated prior to July 13, 2019 (consistent with previous monthly reports).

<sup>32</sup> The established schedule is the schedule communicated to the licensee and made publicly available at the completion of the acceptance review.

<sup>33</sup> Inventory has been updated to include operating Non-Power Production and Utilization Facility LARs beginning with Q3 FY2020 (Inventory – 11 LARs, Submitted – 6 and Completed – 4).

<sup>34</sup> Corrections were made to previous quarters due to quality checking older records and formats, to present the most accurate data to date.

<sup>35</sup> Corrected numbers reflect LARs that were received during the reporting period but entered in the tracking system after the previous report was issued.

### Unusually Complex LARs<sup>36</sup>

The staff has identified certain LARs (accepted for review prior to 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.

<b>Unusually Complex LAR Description</b>	<b>Exclusive Justification</b>	<b>Age (Months)</b>
North Anna Units 1 and 2 –Revision of the Small Break Loss of Coolant Accident (SBLOCA) Analytical Methodologies.	Involves multiple plant specific SBLOCA methodologies.	22
Surry Units 1 and 2 –Revision of Analytical Methodologies for SBLOCA.	Involves multiple plant specific SBLOCA methodologies.	22
Shearon Harris – Request to modify departure from nucleate boiling ratio safety limit to support transition to a new fuel design.	Unique, first of a kind review based on a correlation with a fuel of a different design.	12 <sup>37</sup>

### **3-4 Research Activities<sup>38</sup>**

#### Summary of New Research Projects<sup>39</sup>

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

<b>Future-Focused Research Projects</b>	
<b>Importance to the NRC Mission</b>	This project will assist the NRC in identifying emerging opportunities to improve external awareness, support closure of technical gaps ahead of regulatory needs, foster research and development university funding opportunities, and build new capabilities to attract top talent to support NRC's safety and security mission.
<b>Planned Activities:</b>	Five projects to be undertaken this year include the following: 1) identify and develop strategies to address regulatory challenges in a future with digital twin technologies, 2) use advanced licensing concepts and PRA models to identify candidates for risk-informed applications, 3) enable staff use of advanced simulation-based dynamic PRA methods, 4) educate staff on advanced causality analysis for integration into NRC's risk analysis approach, and 5) identify agency Artificial Intelligence/Big Data needs and available tools and develop a path forward.
<b>Requesting Business Line</b>	All NRC Business Lines

<sup>36</sup> There were no unusually complex LARs for New Reactors or Fuel Facilities within the reporting period.

<sup>37</sup> The Shearon Harris LAR was determined to be unusually complex during the technical review.

<sup>38</sup> Provides information about projects that were started 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>39</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.

<b>Future-Focused Research Projects</b>	
<b>Estimated Completion</b>	2023
<b>Estimate of Total Research Resources</b>	\$0.7M

<b>Investigation of modeling requirements for fast-spectrum, metal-fueled, micro-reactor technologies</b>	
<b>Importance to the NRC Mission</b>	The NRC staff must prepare to review applications in the near-term for micro-reactor concepts being proposed by advanced reactor vendors. These micro-reactor designs utilize several novel features and design approaches that the staff must be knowledgeable of in-order to perform risk-informed, safety-focused reviews.
<b>Planned Activities:</b>	The staff plans to perform research analyses for the following: 1) investigate the suitability of modeling approaches proposed by advanced reactor vendors and 2) understand the significance of phenomena associated with the unique design features associated with micro-reactor technologies.
<b>Requesting Business Line</b>	Operating Reactors
<b>Estimated Completion</b>	2022
<b>Estimate of Total Research Resources</b>	1.1 FTE and \$0.15M

<b>Risk-Informed Reviews of DI&amp;C Systems and Components: Integrating Risk Insights into the DI&amp;C Regulatory Framework</b>	
<b>Importance to the NRC Mission</b>	This project supports approaches to further risk-inform DI&C reviews to complement the existing regulatory framework.
<b>Planned Activities:</b>	The objective is to provide support in developing the technical basis for integrating risk insights into the regulatory framework for DI&C systems and components by (1) assessing the technical feasibility of risk-informed approaches and gaps associated with further integrating risk insights into regulatory reviews for DI&C systems and components; (2) as applicable, piloting a risk-informed categorization process that is compatible with the existing regulatory framework, including Title 10 of the <i>Code of Federal Regulations</i> (10 CFR) 50.69, to classify DI&C systems and components with respect to risk insights and safety significance; and (3) developing recommendations to enhance the use of risk insights within the existing risk-informed regulatory framework for DI&C systems.
<b>Requesting Business Line</b>	Operating Reactors
<b>Estimated Completion</b>	2021
<b>Estimate of Total Research Resources</b>	1 FTE and \$0.4M

<b>Research and Development of Guidance for Subsurface Characterization and Radiological Surveys and Guidance on Performance Assessment and Modeling of Waste Covers</b>	
<b>Importance to the NRC Mission</b>	The NRC staff must be prepared to evaluate new Evapotranspiration (ET) covers on Uranium Mill Tailings Radiation Control Act waste that are planned by DOE. The ability to assess near-term decommissioning of sites with soil that is contaminated with radioactive material at subsurface levels is of importance.
<b>Planned Activities:</b>	Guidance will be developed for staff to evaluate the ability of ET covers to meet regulatory criteria including investigating suitability of models for long-term performance. Guidance will be developed to allow a licensee to use, and NRC to evaluate, historical, scoping, characterization, and radiological surveys that are appropriate for evaluating dose impacts from subsurface contamination.
<b>Requesting Business Line</b>	Decommissioning and Low-Level Waste
<b>Estimated Completion</b>	2023
<b>Estimate of Total Research Resources</b>	8.9 FTE and \$1.6M

#### Summary of Completed Research Projects<sup>40</sup>

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

<b>Applied Research to Inform Nuclear Plant EP Regulatory Oversight</b>	
<b>Importance to the NRC Mission</b>	EP supports licensees, States, and other stakeholders in developing effective plans to respond to a potential radiological event impacting the public.
<b>Research Results or Findings</b>	The project examined several technical areas of evacuation modeling and the findings incorporated into a NUREG to serve as the technical basis for the revision of NUREG/CR-7002, "Criteria for Development of Evacuation Time Estimate [ETE] Studies." The results provide the opportunity to update NRC guidance for the standardization of ETEs and recommendations for acceptable methods to licensees. Staff also published NUREG/CR-7269, "Enhancing Guidance for Evacuation Time Estimate Studies," (ADAMS Accession No. <a href="#">ML20070158</a> ) on March 31, 2020.
<b>Duration of the Project</b>	3 years
<b>Estimate of Total Research Resources</b>	1.5 FTE and \$0.7M

<sup>40</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.

<b>Research Assistance on Reactor Pressure Vessel (RPV) Integrity Issues</b>	
<b>Importance to the NRC Mission</b>	This research enhanced the analysis tools necessary to support staff review and maintenance of the technical basis for the trending of vessel embrittlement to preclude component failure.
<b>Research Results or Findings</b>	Four major tasks were completed to enable NRC to better evaluate RPV integrity, including verification and validation and knowledge management for the Fracture Analysis of Vessels: Oak Ridge computer code, understanding of the effects of small surface-breaking flaws on RPV integrity, support for the Radiation Embrittlement Archive Project, and support of NRR rulemaking for Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Appendix H.
<b>Duration of the Project</b>	3 years
<b>Estimate of Total Research Resources</b>	5.0 FTE and \$2.6M

<b>NuScale Reactor Systems Analysis Research Plan</b>	
<b>Importance to the NRC Mission</b>	Technical input was developed to inform the safety evaluation of the NuScale SMR Design Certification Application.
<b>Research Results or Findings</b>	The results of this research project were provided in three key deliverables that include: 1) confirmatory analyses to assist NRR's review of specific design basis and special events, 2) evaluation of topical and technical reports, and 3) presentations to support ACRS meetings.
<b>Duration of the Project</b>	4 years
<b>Estimate of Total Research Resources</b>	15 FTE and \$0.6M

<b>Flaw Evaluation, Repair and Mitigation Techniques for Primary Water Stress Corrosion Cracking</b>	
<b>Importance to the NRC Mission</b>	The confirmatory research provides guidance for regulatory treatment of the generic aspects of primary water stress corrosion cracking (PWSCC) of Ni-based Alloy 600/182 and Alloys 690/52/152, flaw evaluation, probabilistic pipe rupture, and PWSCC mitigation.
<b>Research Results or Findings</b>	This project identified areas of primary water stress corrosion crack growth rate susceptibility of Alloy 690 weld metal (Alloy 52 and 152, and its many variants), measured heat-to-heat variability, the effect of welding parameters, and the effect of cold work; measured crack initiation times for Alloy 600 and Alloy 182 and on Alloys 690/52/152, including the effects of applied stress; developed and documented validation approaches for finite element modeling of weld residual stress and ended the related research activity; updated flaw evaluation software, developed a User Guide, and trained regulatory staff in the use of the tool; evaluated the effectiveness of PWSCC mitigation techniques and sunset the related confirmatory research program.

<b>Flaw Evaluation, Repair and Mitigation Techniques for Primary Water Stress Corrosion Cracking</b>	
<b>Duration of the Project</b>	3 years
<b>Estimate of Total Research Resources</b>	9.75 FTE and \$4.25M

<b>Evaluating the Reliability of Nondestructive Examinations of Vessels and Piping</b>	
<b>Importance to the NRC Mission</b>	This research evaluated of the effectiveness and reliability of Nondestructive Examinations (NDEs) of vessels and piping.
<b>Research Results or Findings</b>	The project included eight major tasks designed to enable the NRC to better evaluate the effectiveness and reliability of NDEs including qualification requirements. The results provided the technical bases for assessments of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Edition and Addenda and Code Case rulemakings, licensee relief requests, license renewal reviews, and new degradation mitigation techniques.
<b>Duration of the Project</b>	5 years
<b>Estimate of Total Research Resources</b>	12.5 FTE and \$7.5M

### 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.<sup>41</sup>

<b>Fee Class</b>	<b>FY 2019 Part 170 Receipts Final – Annual Fee Rule (\$M)</b>	<b>Part 170 Billed in FY 2020 Q3 (\$M)</b>	<b>Total Part 170 – Billed in FY 2020 (\$M)</b>
Fuel Facilities	\$6.8	\$0.0	\$3.5
Generic Decommissioning	\$3.6	\$0.0	\$1.9
Materials Users <sup>42</sup>	\$1.0	\$0.0	\$0.6
Operating Power Reactors	\$186.7	\$0.0	\$95.2
Research and Test Reactors	\$3.0	\$0.0	\$1.3
Spent Fuel Storage / Reactor Decommissioning	\$15.9	\$0.0	\$5.5
Transportation	\$2.8	\$0.0	\$1.3
Uranium Recovery	\$0.4	\$0.0	\$0.2

<sup>41</sup> In order to temporarily mitigate the financial impacts and economic disruptions to licensees caused by the COVID-19 PHE, the NRC deferred all invoices scheduled to be issued in April, May, and June 2020 until July 22, 2020.

<sup>42</sup> Materials Users—Billed as flat fee applications and included in the estimates and billed.

## 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, Oklo's Aurora combined license application, and the SHINE Medical Technologies, LLC operating license application review. The subsequent renewed licenses for Turkey Point Units 3 and 4 and Peach Bottom Units 2 and 3 were issued on December 4, 2019, and March 5, 2020, respectively.

Docket	Project Name	Projected Resources (\$M) <sup>43</sup>	Fees Billed to Date (\$M) <sup>44</sup>
NuScale Power Reactor 05200048	NuScale SMR Design Certification Application Review	\$66.0 <sup>45</sup>	\$55.0
NuScale Power Reactor 99902043	NuScale SMR Topical Report Reviews (Only those that directly support the design certification review).		\$7.9
Peach Bottom Units 2 and 3 05000277/05000278	Peach Bottom Units 2 and 3 Subsequent License Renewal Application—Safety Review	\$4.3	\$4.1
Peach Bottom Units 2 and 3 05000277/05000278	Peach Bottom Units 2 and 3 Subsequent License Renewal Application—Environmental Review	\$1.5	\$1.5
Surry Units 1 and 2 05000280/05000281	Surry Units 1 and 2 Subsequent License Renewal Application— Safety Review	\$4.9	\$4.6
Surry Units 1 and 2 05000280/05000281	Surry Units 1 and 2 Subsequent License Renewal Application— Environmental Review	\$1.4	\$1.6 <sup>46</sup>

<sup>43</sup> Projected resources are calculated based on the FTE estimates provided to applicants in the acceptance letters. Dollar amounts are obtained by multiplying the hours estimate by \$275/hour.

<sup>44</sup> In order to temporarily mitigate the financial impacts and economic disruptions caused by the COVID-19 PHE, the NRC deferred all Q3 FY 2020 invoices (ADAMS Accession No. [ML20112F428](#)). Although the subsequent renewed licenses for Peach Bottom Units 2 and 3 were issued, fees billed are retained because Q3 FY 2020 invoices were deferred.

<sup>45</sup> When the NuScale design certification application was submitted, the NRC staff did not 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>46</sup> When the Surry subsequent license renewal application was accepted for review on December 3, 2018, the NRC estimate was \$6.3M. At that time, the NRC had not yet completed the review of the first subsequent license renewal application to provide a basis for comparison. The staff provided a revised estimated cost of \$7.6M.



Docket	Project Name	Projected Resources (\$M) <sup>43</sup>	Fees Billed to Date (\$M) <sup>44</sup>
SHINE Medical Technologies, LLC 05000608	SHINE Medical Isotope Production Facility Operating License Application Review— Safety and Environmental Reviews	\$6.2 <sup>47</sup>	\$1.7
Oklo Aurora 05200049	Oklo Aurora Combined License Application – Safety Review	\$0.5 <sup>48</sup>	\$0.0
Oklo Aurora 05200049	Oklo Aurora Combined License Application – Environmental Review	\$0.2	\$0.0

### 3-6 Requests for Additional Information

The table below provides information on RAIs associated with licensing actions that are considered “requested activities of the Commission” for which the NRC staff issues a final safety evaluation, consistent with Section 102(c) of NEIMA. While Section 102(c) of NEIMA only applies to licensing actions accepted after July 13, 2019, the RAI data also include licensing actions accepted prior to July 13, 2019, to provide a complete inventory.

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>49</sup>
Operating Reactors	359	194	227	162
Non-Power Production and Utilization Facilities <sup>50</sup>	450	75	54	20
Design Certifications for New Reactors	0	0	0	4
Early Site Permits for New Reactors <sup>51</sup>	N/A	N/A	N/A	N/A
Combined Licenses for New Reactors	0	0	0	0
Fuel Facilities	25	18	42	28

<sup>47</sup> The projected resource estimate was provided to SHINE by letter dated April 30, 2020 (ADAMS Accession No. [ML20114E315](#)).

<sup>48</sup> When the Oklo COL was accepted, the NRC indicated that the staff plans to complete the review in a two-step process. This table only contains the projected resources to complete Step 1 of the review.

<sup>49</sup> RAIs are considered closed once the final safety evaluation, environmental assessment, or environmental impact statement is finalized except for RAIs associated with new reactor application reviews. Due to the phased approach taken over several years for new reactor application reviews, RAIs are closed throughout the review process once the staff has determined no additional information is needed to resolve the issue.

<sup>50</sup> For the purposes of RAI reporting, non-power production and utilization facilities include all operating research and test reactors and medical radioisotope facilities licensed under 10 CFR Part 50, including the ongoing review of the SHINE Medical Technologies, LLC operating license application.

<sup>51</sup> There are no early site permit applications currently 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.

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>49</sup>
Power Reactor Decommissioning	27	16	16	0
Research and Test Reactor Decommissioning	6	0	0	0
Spent Fuel	711	79	221	1
Materials	6	6	0	0
Pre-Application Activities for Advanced Reactors	41	0	0	0

### 3-7 Workforce Development and Management

#### FY 2020 Staffing by Office<sup>52</sup>

	FY 2020 Budget	FTE Utilization 03/15/20 - 04/25/20	FTE Utilization 04/26/20 - 05/23/20	FTE Utilization 05/24/20 - 06/20/20	FTE Utilization as of 06/20/20	Delta (Q3 FTE Utilization – FY 2020 Budget)	End of Year (EOY) <sup>53</sup> Projection w/ Personnel Actions	Delta (EOY Projection – FY 2020 Budget)
<b>Totals<sup>54</sup></b>	2979.0	211.4	210.9	215.4	2035.2	-943.8	2795.2	-183.8
COMM	45.0	2.2	2.2	2.3	20.8	-24.2	30.2	- 14.8
OIG	63.0	3.9	4.0	4.3	39.9	-23.1	55.6	-7.4
<b>Totals Other Offices</b>	2871.0	205.3	204.7	208.8	1974.4	-896.6	2709.4	-161.6
OCFO	96.0	6.9	6.8	7.0	66.1	-29.9	90.9	-5.1
OGC	96.0	7.0	7.0	7.1	67.2	-28.8	91.8	-4.2
OCA	11.0	0.8	0.8	0.8	7.7	-3.3	10.4	-0.6
OCAA	8.0	0.4	0.4	0.5	4.5	-3.5	6.3	-1.7
OPA	15.0	1.0	1.0	1.0	10.0	-5.0	13.5	-1.5
SECY	18.0	1.2	1.2	1.3	11.5	-6.6	16.1	-1.9
OIP	35.0	2.6	2.5	2.5	24.2	-10.8	33.4	-1.6
ASLBP	24.0	1.7	1.7	1.7	16.3	-7.7	21.9	-2.1
ACRS	24.0	2.1	2.1	2.1	19.9	-4.1	27.2	3.2
OEDO	23.0	1.6	1.6	1.6	15.2	-7.8	20.8	-2.2
NRR	601.3	42.4	42.4	43.2	413.9	-188.4	563.6	-38.7
NMSS	296.2	23.7	23.6	24.2	225.3	-70.9	309.2	13.0
RES	205.4	14.1	14.1	15.0	136.5	-67.9	188.9	-15.5
NSIR	158.5	12.3	12.2	12.3	116.4	-42.1	159.0	0.5
R-I	182.3	12.7	12.6	12.8	123.3	-59.0	169.0	-13.3
R-II	235.7	16.6	16.5	16.4	159.3	-76.4	216.7	-19.0
R-III	178.9	12.9	12.9	13.4	125.7	-53.2	171.8	-7.1

<sup>52</sup> Some numbers might not add due to rounding.

<sup>53</sup> Based on FTE utilization as of June 20, 2020.

<sup>54</sup> Totals include Office of the Inspector General.

	FY 2020 Budget	FTE Utilization 03/15/20 - 04/25/20	FTE Utilization 04/26/20 - 05/23/20	FTE Utilization 05/24/20 - 06/20/20	FTE Utilization as of 06/20/20	Delta (Q3 FTE Utilization – FY 2020 Budget)	End of Year (EOY) <sup>53</sup> Projection w/ Personnel Actions	Delta (EOY Projection – FY 2020 Budget)
R-IV	166.1	12.4	12.3	12.4	116.9	-49.2	160.8	-5.3
OE	30.6	2.3	2.3	2.3	21.9	-8.7	30.0	-0.6
OI	38.0	3.0	3.0	3.0	29.2	-8.8	39.6	1.6
OCIO	171.0	11.6	11.5	11.7	110.8	-60.2	152.1	-18.9
ADM	131.0	8.8	8.9	9.0	83.7	-47.3	114.5	-16.5
SBCR	13.0	0.8	0.8	0.8	7.7	-5.3	11.0	-2.0
OCHCO	112.0	6.1	6.1	6.5	59.8	-52.2	88.6	-23.4
CSU	1.0	0.2	0.2	0.2	1.6	0.6	2.2	1.2

### 3-8 Inspection Activities

The table below shows the average number of hours of direct inspection per plant in FY 2020.

#### Average Reactor Oversight Process Direct Inspection Hours

Nationwide Per Plant	Column 1 of ROP Action Matrix	Column 2 of ROP Action Matrix	Column 3 of ROP Action Matrix	Column 4 of ROP Action Matrix
730 Hours	739 Hours	577 Hours <sup>55</sup>	No Plants in Column 3	No Plants in Column 4

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

Items	Description	CY 2019 (Hours)	CY 2020 (YTD) (Hours)
i.	Baseline Inspection	235,718	99,612
ii.	Plant Specific Inspection	9,096	3,588
iii.	Generic Safety Issue Inspections	3,200	522
iv.	Performance Assessment	1,532	880
v.	Other Activities	98,614	44,191
vi.	Total Staff Effort	348,160	148,793
vii.	Total Staff Effort Per Operating Site	6,003 <sup>56</sup>	2,610 <sup>57</sup>

### 3-9 Backfit

#### Facility-Specific Backfits

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

<sup>55</sup> Browns Ferry Nuclear Plant (three-unit boiling water reactor site) and Vogtle Electric Generating Plant (two-unit pressurized water reactor site) were in Column 2 of the ROP Action Matrix year-to-date in CY 2020.

<sup>56</sup> Total staff effort is divided by 58 sites for CY 2019, due to Pilgrim Nuclear Station permanently ceasing operations on May 31, 2019. Because Three Mile Island, Unit 1, operated for the majority of CY 2019, it was included as an operating site.

<sup>57</sup> Total staff effort is divided by 57 sites for CY 2020, due to Three Mile Island, Unit 1, permanently ceasing operations on September 20, 2019.

### Generic Backfits

There were no generic backfits issued during the reporting period.

### Backfit Appeals Filed by Licensees and Applicants

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