

JAMES M. INHOFE, OKLAHOMA
SHELLEY MOORE CAPITO, WEST VIRGINIA
JOHN BOOZMAN, ARKANSAS
ROGER WICKER, MISSISSIPPI
DEB FISCHER, NEBRASKA
JERRY MORAN, KANSAS
MIKE ROUNDS, SOUTH DAKOTA
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DAN SULLIVAN, ALASKA
RICHARD SHELBY, ALABAMA

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KAMALA HARRIS, CALIFORNIA

United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

WASHINGTON, DC 20510-6175

RICHARD M. RUSSELL, MAJORITY STAFF DIRECTOR
GABRIELLE BATKIN, MINORITY STAFF DIRECTOR

October 31, 2017

The Honorable Kristine Svinicki
Chairman
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Chairman Svinicki:

Since February 22, 2017, the Nuclear Regulatory Commission (NRC) has been providing a monthly report on the status of the licensing activities and regulatory duties to this Committee. The report is a tool that assists the Committee in gauging the NRC's performance, consistent with its oversight responsibility. As such, we are sensitive to the resources necessary to produce the report and appreciate the NRC's effort to be responsive.

The report can also inform the NRC's pursuit of continuous improvement in keeping with the agency's principles and values. The NRC's Efficiency Principle states: *"The American taxpayer, the rate-paying consumer, and licensees are all entitled to the best possible management and administration of regulatory activities."* The NRC's Organizational Value of Excellence includes the descriptor of "continuously improving."

Performance metrics are an essential tool for identifying areas of improvement. Metrics highlight performance improvement or shortfalls, providing valuable information where additional management attention is needed. As such, performance metrics are an essential component of the report.

The GAO's study of the NRC's fee-setting calculations offers a good illustration of why performance metrics are necessary:

"the NRC staff could not explain to us how they will know to what extent their efforts will achieve the goals identified by Project Aim, if at all, because they have not established measurable performance metrics or a plan and schedule for measuring performance."

This observation led the GAO to conclude: *"Without setting performance goals and measures, NRC cannot effectively assess the extent to which its actions are improving timeliness and transparency."*¹ While this GAO conclusion was in the context of one issue, the NRC would benefit from expanding its use of metrics and using the results to more fully inform the agency's effort to provide the best possible management and administration. Performance metrics are also an essential component of the Committee's oversight.

¹ U.S. Government Accountability Office: "Nuclear Regulatory Commission: Regulatory Fee Setting Calculations Need Greater Transparency." GAO-17-232, February 2017.

effort to provide the best possible management and administration. Performance metrics are also an essential component of the Committee's oversight.

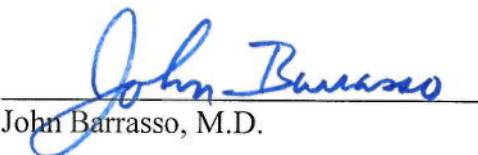
Enclosed with this letter are two attachments. The first provides examples and additional context describing the need for a revision to the monthly report. The second attachment is the requested revision of the monthly report. As noted in the Committee's original December 2016 request, graphical metrics supplemented by succinct narrative is an appropriate approach to allow Congress to evaluate ongoing progress at the agency. We expect much of this information should be routinely produced and tracked through fundamental management of the agency's program of work and should not be overly burdensome to collect and provide.

The Committee continues to consider the monthly report to be a living document. For items that are completed, it should be noted in the current monthly report and reporting on that item should be discontinued going forward. As new issues arise, Committee members may ask to have them incorporated into the report.

Please use the attachment to develop the first revised report covering the month of November and provide it to the Committee no later than January 8, 2018. Subsequent reports should be provided the first Monday of each following month.

Thank you for your responsiveness to this oversight request. Your effort and attention to this matter are much appreciated.

Sincerely,


John Barrasso, M.D.

Chairman
U.S. Senate Committee on Environment
And Public Works


Shelley Moore Capito

Chair
U.S. Senate Subcommittee on
Clean Air and Nuclear Safety

Enclosures

Attachment 1: Context Regarding the Need for Revision of the Monthly Report

The Committee's original request for this report noted that it should be a living document subject to change over time as some matters are completed or new issues arise. After reviewing nine reports, we are requesting a revision that we believe will improve its quality and usefulness.

The revision includes new items, increased detail for existing items, and modifications to present information more clearly. The existing arrangement lists graphical and narrative items separately. The revision should reorganize subject matter into categories, with graphical information for a particular topic followed by any relevant narrative information. These changes will improve the organization and readability of the report.

We are concerned that some information presented in the report appears "recycled", showing little or no change during the previous nine months of reporting. This suggests either a lack of progress on several topics of interest to the Committee or that ongoing efforts may not be adequately or currently captured in the report. The following examples illustrate some of these gaps in an effort to provide clarity with regard to our concerns and expectations.

Cost-Benefit Analysis

For several years, Members of the Committee have raised concerns about the need for NRC to improve its cost-benefit analyses. In 2014, The Government Accountability Office reviewed the NRC's cost-estimating methods and found that they "*do not adequately support the creation of reliable cost estimates.*"²

The Committee's request for a monthly report noted, "[t]he NRC staff agreed to improve its procedures but, nearly two years later, those efforts have not been completed." After receiving nine monthly reports, it is clear that effort still remains incomplete and no action has been taken to develop metrics to assess the quality of the NRC's cost-benefit analyses. In fact, it is not clear from the monthly report that any progress was made during those nine months since the text remains completely unchanged.

The NRC's lack of focus on this issue is disconcerting, especially considering the Committee's long-standing concern about this important responsibility. Going forward, the Committee requests that the report include an updated status summary of achievements to-date and actions planned, with milestones when appropriate.

² Government Accountability Office Report 15-98: *NRC Needs to Improve Its Cost Estimates by Incorporating More Best Practices*: December 2014.

License renewal

License renewal has been an issue of interest to the Committee for over twenty years. It has also been a significant achievement for the NRC, demonstrating the agency's efficiency and effectiveness. Since 1998, the NRC has reviewed applications to extend the operating licenses for 87 nuclear power reactors. License renewal has enabled our existing reactors to operate safely for an additional twenty years, continuing to provide clean, affordable, and reliable power for our nation's economy.

Until the last several years, reviews have followed a predictable timeframe in accordance with the NRC's expected schedules of 22 months for uncontested applications and 30 months for contested ones. In recent years, some contentious or complicated license extension applications have led to lengthy reviews that exceed three- to four-times the expected timeframes. This situation seems to be fostering a general lack of focus on the need for timely, predictable reviews. Of the five applications currently under review, only one has a projected date for completion. The NRC has reviewed one application for over seven years and consistently reported in all nine monthly reports that its schedule is under review and remains without a projected date for completion. Another application was given an estimated review schedule of 16 months but, 15 months later, has no projected date for completion. It is difficult to reconcile the failure to set predictable schedules with the NRC's historic track record of timely license renewal reviews.

The growing lack of predictability for license renewal reviews naturally prompts questions about whether subsequent license renewal reviews will be similarly unpredictable. Subsequent license renewal will require significant investment by licensees. Clear, predictable schedules are essential for licensees to determine whether existing reactors can remain economically viable in light of the necessary investment.

Flat Fees for Routine Uranium Recovery Actions

The report has changed very little over nine months with regard to developing flat fees for some routine uranium recovery licensing actions. This suggests little has been done since receiving Commission direction in 2016. As noted in the report, the NRC staff has yet to engage with the licensees or consult with Agreement States regarding their processes for developing fees for uranium recovery licensees. Instead of examining invoices issued in recent years as basis for developing potential flat fees, the agency has stalled progress on this task by waiting to establish a "new data recording structure," training staff to use the new data structure, and then gathering two years of data before beginning its evaluation. This unnecessary bureaucratic delay means that this effort will take until 2020 to complete.

The agency's effort on this issue falls short of the Project Aim goal to become efficient and agile, especially when contrasted with the fact that some Agreement States already have such a practice in place.

National Historic Preservation Act Reviews

The report on this issue remains completely unchanged since the first report. This raises the question of whether anything has been done in the past nine months to improve the efficiency and timeliness of these reviews, and what remaining actions are planned for the future to implement process improvements.

Invoicing

In 2015, the Commission directed the staff to improve the transparency and detail in its invoices. For the last nine months, the report on this issue is largely unchanged and contained the following statement: *“Under this initiative as well as other improvement activities, several recommendations to improve invoices are currently under review...”*. Since we requested the status of this effort, we question how much longer these recommendations will be under review before conclusions are reached and improvements are implemented.

When the GAO reviewed the NRC’s fee-setting processes, it noted: *“Several industry stakeholders told us that NRC’s invoices do not include sufficient information to identify charges for specific work activities completed by NRC.”*³ The NRC responded by doubling the length of the cost activity description field which, as the GAO noted, grew from 60 to 120 characters. While this increase in detail is a step forward, it seems difficult to justify the recovery of 90 percent of the agency’s budget based on descriptions that are briefer than a Tweet. Going forward, we ask for more information on improvements made in this area.

Project Aim 2020

While acknowledging the progress made under Project Aim 2020, the Committee’s original December 2016 request for a monthly report stated:

“The NRC’s workload in reactor oversight, licensing actions, and new reactor reviews has decreased from that of ten years ago, yet the NRC’s workforce and resources remain higher. Members of the Committee have urged the Commission to correct this discrepancy and to find additional cost savings within its corporate support spending, to prioritize research projects by safety significance, and to reestablish previous levels of efficient and timely decision-making. To these ends, we expect that the NRC will consider Project Aim to be a continuous forward-looking planning process that is fully integrated into the NRC’s strategic planning efforts.”

Project Aim 2020 was initiated with the goal: *“to transform the agency over the next five years to improve the effectiveness, efficiency, and agility of the NRC.”*⁴ The nuclear industry’s continuing contraction is evidenced by the recent decision to cease construction of the new reactors in South Carolina, and ongoing reports that additional operating plants may close.

³ U.S. Government Accountability Office: “Nuclear Regulatory Commission: Regulatory Fee Setting Calculations Need Greater Transparency.” GAO-17-232, February 2017.

⁴U.S. NRC website: <https://www.nrc.gov/about-nrc/plans-performance/project-aim-2020.html>

prematurely. In contrast, Project Aim 2020 appears to be drawing to a close two years early. The most recent Project Aim quarterly report indicates the vast majority of action items will be completed by early 2018 when the staff will cease producing the quarterly report.⁵ This suggests the NRC is no longer working to identify additional opportunities to improve processes and achieve resource savings.

While we consider the work done to date to be a good start, it is neither transformational nor adequate to address the dynamic environment facing the NRC. Our expectation that Project Aim 2020 should continue as a forward-looking planning process remains valid. The Office of Management and Budget's Fiscal Year 2019 Budget Guidance states "*The FY 2019 budget process will give special consideration to bold reform or reorganization proposals that have the potential to dramatically improve effectiveness and efficiency of government operations.*"⁶ (emphasis in original) Project Aim 2020 should be a platform for the NRC to embrace that direction and demonstrate leadership. We request the addition of a couple items to the report to monitor the NRC's progress.

New Construction ITAAC

Before authorizing operation of the new reactors currently under construction in Georgia, the NRC must verify more than 850 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC). As construction progresses, the NRC's ITAAC workload will accelerate. In a letter to then-Chairman Stephen Burns on August 23, 2016, Senators Inhofe and Capito raised questions about the NRC's preparedness for the complete and timely reviews stating:

"This situation has captured our close attention not only because of these reactors' importance for energy supply but also because the implementation of this process will have a significant impact on the NRC's reputation..."

On September 19, 2016, Chairman Burns replied: "*I am confident that the NRC has in place the necessary procedures, processes, and infrastructure to effectively carry out our oversight responsibilities...*" He went on to state: "*The agency has established a performance indicator to track the percentage of ITAAC closure notification reviews completed within 2 months of submission.*"

The NRC established "ITAAC Notifications Review Status Reports" on its website to improve transparency on this issue. It is difficult to determine from these status reports whether or not the NRC is meeting its two-month performance metric. For some items, the review time appears to be longer than a year. For others, the information appears incomplete. Lastly, the status reports do not appear to be well maintained or current since updates seem to take over a month or more.

With the cessation of new reactor construction in South Carolina, the construction of the new reactors in Georgia has become a litmus test for whether the U.S. can successfully build

⁵ Project Aim: Implementation Status Update; April 2017.

⁶ Office of Management and Budget M-17-28: "Memorandum for the Heads of Departments and Agencies"; July 7, 2017.

nuclear reactors. It will also be a test of the NRC's ability to efficiently and effectively manage regulation of the project without unnecessary delays. While we applaud the NRC's effort to provide additional transparency on this important issue, the Committee and the public would benefit from a more complete and timely accounting of the NRC's progress.

Research

Research is essential for the NRC to confirm safety and security, to understand uncertainties, and to determine whether new issues have safety or security implications that must be addressed. Oversight by the Committee revealed the NRC's inability to fully articulate the duration of its research projects, their costs, or the relative safety significance of the research. While some open-ended, ongoing research is to be expected, that should not be the approach for the bulk of the NRC's research.

We would expect the NRC to prioritize its research based on its safety significance to ensure the most safety-beneficial work is completed in a timely fashion. If the NRC cannot assess the relative safety significance of its research projects, then such prioritization becomes impossible. Without prioritization, resources may be diverted to less important initiatives thereby delaying work on initiatives with the greatest safety benefit.

If research is requested to answer a safety or security question, then it is reasonable to expect the answer is needed in a particular timeframe to support regulatory decision-making. If there is no clear timeframe in which the answer is needed, then the request should be scrutinized to determine if it is truly necessary. The Office of Research raised a concern that some of its routine research would slow down due to resource reductions under Project Aim 2020.⁷ This is difficult to substantiate given the lack of timeframes associated with its research.

For fiscal year 2018, the NRC has requested \$75 million for research. Without understanding the relative safety significance or urgency of its research projects, it is difficult for this Committee to assess whether the NRC is effectively managing its research resources. For the Office of Research, please describe the process and internal controls (e.g. management directives, office instructions, etc.) for both the initiation and completion of research requests. Please include a description of how research initiatives are prioritized commensurate with their safety significance to ensure each matter is addressed in a timely manner.

⁷ NRC briefing for Committee Staff, February 19, 2016.

Attachment 2: Requested Revision

Resources

1. (Graphical) Will Project Aim 2020 conclude in early 2018, or will it continue pursuing additional improvements? If Project Aim will continue, please describe any new or additional actions taken or planned, including milestones for completion of such actions.
2. (Narrative) Consistent with the workload forecast done under Project Aim 2020, to what extent has the NRC incorporated five-year workload planning into its policies and procedures, e.g. strategic planning and budget formulation? Please describe the actions taken or planned.
3. (Graphical) Please provide the total number of staff and corporate support staff (FTE), budgeted vs. actual, for the agency and in each of the following offices: Nuclear Reactor Regulation, New Reactors, Nuclear Materials Safety and Safeguards, Nuclear Security and Incident Response, Nuclear Regulatory Research, Uranium Recovery, Decommissioning, and each regional office. Please provide this information for the current month, each of the previous eleven months, and projections for each of the twelve months going forward. Please do not divide by twelve.
4. (Narrative) Please describe the status of actions taken or planned to reduce corporate support costs, including efforts to reduce office space in the Three White Flint North building and in the regional offices. Please include goals for space reductions and cost savings, as well as the estimated date to achieve those goals.
5. (Narrative) Please describe the status of efforts to provide greater transparency, timeliness, and itemization in invoices to applicants and licensees, including any progress toward electronic invoicing and payment. Please include near-term (within 6 months), medium-term (6 to 12 months), and long-term (greater than 12 months) milestones.
6. (Graphical) Please provide a list of all new research initiated during the reporting period. For each new project, please provide the estimated timeframe and resources necessary for completion, and a description of the safety significance of the research.

Uranium Recovery

7. (Graphical) For major uranium recovery licensing actions, please provide a table including the date the application was filed, the duration of the application review, the originally forecasted completion date, the currently forecasted completion date, and the total current amount of fees billed to the licensee/applicant for the review.
8. (Narrative) For major uranium recovery licensing actions, please provide a brief description of the status of each review, including projected budget and timeline for both the environmental impact statement and the safety evaluation report.
9. (Graphical) For minor uranium recovery licensing actions, please provide the following information each reporting period, including any months previously reported, in this format:
 - a. Size of inventory;
 - b. Number of acceptance reviews completed on time;
 - c. The number of items completed in the period being reported; and

- d. Of the items completed in the reporting period, the number completed within the forecasted schedule.
 - e. (Narrative) Please identify any “unusually complex” items omitted from the inventory and provide the age of the item, a brief description of the item, the justification for omitting it from the inventory size, and an explanation for any review exceeding its original schedule by 125 percent.
10. (Narrative) Please provide a concise summary of the status of the process for the State of Wyoming to become an agreement state.
 11. (Narrative) Please provide a concise summary of the specific actions planned to improve the efficiency of reviews conducted for compliance with the National Historic Preservation Act, including implementation dates for completion. Please describe any progress made during the reporting period.
 12. (Narrative) Please provide a concise summary of the progress of the pilot project to establish flat fees for uranium recovery licensees, including specific near-term (6 months), medium-term (6-12 months), and long-term (greater than 10 months) milestones necessary to complete the pilot program.

Licensing

13. For operating reactors, new reactors, and uranium recovery licensees, please provide the following information regarding license amendment reviews:
 - a. (Graphical) Please provide the following information for the current reporting period, including any information previously reported in the last six months:
 - i. Size of inventory;
 - ii. The number of items completed in the period being reported;
 - iii. Percentage of acceptance reviews completed on time;
 - iv. The percentage of these items completed within the forecasted schedule;
 - v. The percentage of these items completed within 125 percent of the forecasted schedule;
 - vi. The percentage of items completed within ten months;
 - vii. The average age for items completed during the period being reported;
 - viii. The ages of the quickest three items completed; and
 - ix. The ages of the slowest three items completed.
 - b. (Graphical) For the reporting period, please also provide the following for license amendment requests:
 - i. The number not accepted for review; and
 - ii. A list of the requests that were withdrawn or denied after being accepted for review including the age of the request at the time it was withdrawn or denied.
 - c. (Narrative) Please identify items considered “unusually complex” items (e.g. criticality reviews, NFPA 805 reviews) and omitted from the inventory including: the age of the item, a brief description of the item, the justification for omitting it from the inventory size and an explanation for any review exceeding its original schedule by 125 percent.

- d. (Narrative) Please describe any steps taken to provide transparency into the progress of license amendment reviews, such as publicly available, real-time tracking of the completion of review schedule milestones.
14. (Graphical) For decommissioning transition reviews, please provide the following information for the reporting period, including any months previously reported:
 - a. Size of inventory;
 - b. The number of items completed in the reporting period;
 - c. Of the items completed in the reporting period, the number completed within the originally forecasted schedule; and
 - d. The number of items completed within 125 percent of the forecasted schedule.
 - e. (Narrative) Please identify any “unusually complex” items omitted from the inventory including the age of the item, a brief description of the item, the justification for omitting it from the inventory size, and an explanation for any review exceeding its original schedule by 125 percent.
 15. (Graphical) Please provide a list of Technical Specifications Task Force (TSTF) “travelers” under review, including the date filed, the milestone schedule for completing the review, and the estimated date for final agency action.⁸ Please provide an explanation for any review exceeding the original schedule by 125 percent.
 16. (Narrative) Please describe the actions planned and/or taken to ensure that the TSTF traveler process achieves the regulatory efficiencies that were initially projected. Please include progress reports with regard to any TSTF travelers adopted by the industry.
 17. (Graphical) For each ongoing license renewal review, please provide the date each application was filed, the duration of the review, the original milestone schedule based on 22 months for uncontested applications and 30 months for contested applications, the actual completion dates for milestones, and the scheduled date for completion of the review. Please provide an explanation for any review exceeding the original schedule by 125 percent.
 18. (Narrative) Please provide the status of ongoing license renewal reviews.
 19. (Narrative) Please provide the status of the NRC’s readiness to review applications for Subsequent License Renewal (SLR).
 20. (Graphical) Once Subsequent License Renewal reviews begin, please report progress similarly to current license renewal reviews, including: the date each application was filed, the duration of the review, the original milestone schedule based on an 18-month review, the actual completion dates for milestones, and the scheduled date for completion of the review.
 21. (Graphical) For each ongoing power uprate review, please provide:
 - a. The date the application was filed;
 - b. The duration of the review;
 - c. The original milestone schedule;
 - d. The actual completion dates for milestones; and
 - e. The scheduled date for completion of the review based on the metrics in SECY-13-0070.
 22. (Narrative) Please provide a brief status of power uprate application reviews.

⁸ Nuclear Regulatory Commission’s Technical Specification Task Force (TSTF) Travelers: <http://www.nrc.gov/reactors/operating/licensing/techspecs/post-revision3-sts.html>; April 14, 2016.

23. (Graphical) Please provide the following information below regarding Requests for Additional Information (RAI) issued by each of the following offices: Nuclear Reactor Regulation, New Reactors, Nuclear Security and Incident Response, Uranium Recovery, and Decommissioning. The number of RAIs includes the total number of questions or requests contained in a letter or email. For example, if a letter requests five items, the number of RAIs is five. For each office and for the period being reported, please provide:
- a. The number of RAIs issued;
 - b. The number of RAIs issued prior to preparation of a draft safety evaluation with open items;
 - c. The number of RAIs issued in an additional round, subsequent to previous RAIs, in specific technical area or by a technical branch;
 - d. The percentage of RAI responses provided by licensees within 30 days or the date mutually agreed upon;
 - e. The number of RAIs prepared or responses reviewed by contractors; and
 - f. The number of RAIs prepared or responses reviewed by NRC staff.
 - g. Once sufficient data becomes available, please provide 12-month rolling average number of RAIs issued by each office.
24. (Narrative) Please provide the status of specific actions taken or planned to ensure greater discipline, management oversight, and transparency in the use of the RAI process and to limit RAIs to those necessary for making a regulatory decision. The description should include: management oversight and accountability, the training necessary to provide consistency and sustainable improvement across the applicable program business lines, efforts to establish consistent procedures in relevant offices, and any gaps or trends identified by management or through internal reviews including periodic internal RAI audits.
25. (Narrative) In keeping with the Commission's policy statement on the use of probabilistic risk assessment (PRA), please describe the agency's actions to enhance the integration of risk information across the agency's activities to improve the technical basis for regulatory activities, to increase efficiency, and to improve effectiveness. Please include actions taken or planned (including milestones, where appropriate) for improving the realism of PRA information used in regulatory decision-making, for training staff to more effectively apply risk information, for updating agency processes and procedures accordingly, and for improving consistency among NRC offices and regions.
26. (Graphical) The NRC has a long-standing effort to establish an efficient, reliable, and predictable licensing process for power reactors to transition from analog to digital instrumentation and control systems for safety-related applications. Please provide the date this effort began, a milestone schedule for implementation of the licensing process including the actual milestone completion dates, and the scheduled date for completion.
27. (Narrative) Please describe actions taken and/or planned to prepare to review industry requests to use Accident Tolerant Fuel in existing reactors, including but not limited to actions taken and/or planned for lead test assemblies and fuel loads. Please include a milestone schedule and brief project plan for both evolutionary and revolutionary designs.

28. (Narrative) Please describe actions taken and/or planned to improve the quality of cost benefit analyses conducted in association with new requirements, backfit analyses, or rulemaking, including the development of metrics for assessing the quality of cost-benefit analyses. Please include milestones for completing these actions and the guidance that is currently under revision.
29. (Narrative) Please provide the status of the revised guidance currently under development to clarify the use of qualitative factors, including milestones and the projected date for completion. In addition to this revised guidance, please list and briefly describe any actions taken and/or planned to improve the use of quantitative factors in regulatory analyses required for rulemaking, in the regulatory analyses required under the Backfit Rule, and in the Reactor Oversight Process Significance Determination Process.
30. (Graphical) Please provide a list of all final generic regulatory actions issued in the last 3 years. Please include:
 - a. Whether the item was reviewed by Committee for the Review of Generic Requirements (CRGR);
 - b. Whether the CRGR review was formal or informal;
 - c. The CRGR recommendation; and
 - d. The NRC's conclusions with respect to compliance with the Backfitting Rule (i.e., no backfitting, cost-justified substantial increase, compliance exception, adequate protection exception).
31. (Graphical) Please provide a list and brief description of all facility specific backfits issued in the reporting period.
32. (Graphical) For matters reviewed by the CRGR, please provide 12-month and 3-year rolling averages for the following metrics:
 - a. For the number of issues reviewed formally: the percentage accepted for imposition on industry and the percentage rejected based on cost-benefit or Backfit concerns; and
 - b. For the number of issues reviewed informally: the percentage accepted for imposition on industry and the percentage rejected based on cost-benefit or Backfit concerns.
33. (Narrative) Please provide the status of the application of the Backfit Rule in licensing and inspection programs across the agency, including:
 - a. The need for training on the requirements and application of 10 CFR 50.109;
 - b. The need for a process, training, and/or oversight in addressing inspection issues that may redefine or reinterpret the original licensing basis (e.g. unresolved issues, task interface agreements, disputed violations) to ensure that new requirements are not imposed through the inspection program;
 - c. A review of proposed regulatory changes that are currently in process to ensure that regulatory actions are appropriately informed by the requirements of 10 CFR 50.109. Examples of such actions could include but are not limited to the following:
 - i. The Draft Regulatory Issue Summary on Service Life addressing the treatment of vendor recommendations within the regulatory framework;
 - ii. 10 CFR 50.46(c) rulemaking for which the justification utilizes the adequate protection provisions of the backfit rule to obviate the need to compare the

- benefits of public health and safety with the cost of compliance for the three major portions of the rule;
- iii. Use of the compliance exception backfit as proposed by the NRC staff to address the “open phase condition (OPC)” issue; and
 - iv. Possible alteration of the risk reduction credit given for Incipient Fire Protection after the modifications have been installed and received approval from the NRC crediting the technology.
- d. Please describe the progress made during each reporting period.
34. (Narrative) Please provide a description of actions taken and/or planned to address recommendations made by the CRGR in their report “U.S. Nuclear Regulatory Commission’s Implementation of Backfitting and Issue Finality Requirements,” dated June 27, 2017. Please include a milestone schedule for completing action on each recommendation.

Reactor Inspection

35. (Graphical) Please provide the Reactor Oversight Process findings for year-to-date and three-year rolling metrics, including the total number and for each region for green, white, yellow, and red findings.
36. (Graphical) Please provide the percentage of Final Significance Determinations made within 90 Days for all potentially Greater-Than-Green findings, monthly for one-year rolling metrics and annually for the past 10 years.
37. (Narrative) For each reporting period, please describe each instance where Inspection Manual Chapter 609 Appendix M, “Significance Determination Process Using Qualitative Criteria,” has been applied in the Reactor Oversight Process Significance Determination Process, including the justification for doing so.
38. (Narrative) Please provide the status of potential changes to the Reactor Oversight Process, and identify any changes that may require Commission approval prior to implementation.
39. (Narrative) Please describe the progress toward utilizing an industry consensus document as a means of accomplishing predictability and consistency in operability determinations.
40. (Graphical) For each Design Bases Assurance Inspection (formerly known as the Component Design Basis Inspection) completed in the last three years, please list the duration, amount of fees billed, and percentage of fees used to reimburse contractors.
41. (Narrative) Please provide the status of the holistic review of engineering inspection procedures and any actions taken and/or planned because of the review.

New Reactors

42. (Graphical) Please provide a table showing the funds budgeted, the resources spent, and the total Part 170 fees billed each year for the last ten years for the Office of New Reactors.
43. (Graphical) For each design certification, Construction and Operating License (COL), and Early Site Permit (ESP) application reviewed since 2007, please provide:
- a. The date of the first pre-application meeting;
 - b. The date the application was filed;
 - c. Whether the acceptance review was completed in 60 days;

- d. The originally scheduled dates for completion of the safety evaluation report and environmental impact statement;
 - e. The actual dates for completion of the safety evaluation report and environmental impact statement;
 - f. For ongoing reviews, the projected date for final agency action;
 - g. For terminated or suspended reviews, the dates of the termination or suspension; and
 - h. The total fees billed for each review.
44. (Narrative) Please provide a concise summary of the status of ongoing design certification, COL, and ESP application reviews. Please include a discussion of the issuance of RAIs and receipt of responses.
45. (Graphical) For reactors under construction, please provide:
- a. The number of NRC inspections and ITAAC reviews forecast to be completed per month versus the number completed each month;
 - b. The percentage of NRC inspections and the percentage of ITAAC reviews completed within 30 days and within two months; and
 - c. For ITAAC reviews completed during the reporting period, please provide the date when the NRC received the ITAAC closure notice and the date when the review was completed.
46. (Graphical) For reactors under construction, please provide:
- a. The number of license amendment reviews forecast to be completed in the reporting period;
 - b. The number completed in the reporting period; and
 - c. The number of those that were completed within 30 days.
47. (Graphical) For reactors under construction, please provide the budgeted resources versus actual expenditures each month for the last 24 months.
48. (Narrative) Please provide a concise summary of the status of licensing and inspection for Vogtle 3&4, including any challenges to the timely resolution of: licensing issues, 10 CFR Part 52 interpretations, completion of inspections, or completion of ITAAC reviews.
49. (Narrative) Please describe any actions taken in the past 3 years or planned to improve the efficiency of new plant reviews, including milestone schedules to implement efficiency improvements. Please include any concerns arising from review experience in the past 3 years.
50. (Graphical) Please provide a list of any unresolved policy issues with regard to the licensing of small modular light-water reactors (SMRs). Please include an approximate date when each issue was first raised, any actions taken or planned to resolve the issue, the milestone schedule for resolution, and the projected date for resolution.
51. (Graphical) Please provide a list of any unresolved policy issues with regard to the licensing of advanced non-light water reactors. Please include an approximate date for when each issue was first raised, any actions taken or planned to resolve the issue, the milestone schedule, and the projected date for resolution.
52. (Narrative) Please describe the status of preparations to review non-light water reactor applications including a milestone schedule and completion dates.