



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

June 15, 2016

The Honorable John Shimkus  
Chairman, Subcommittee on Environment  
and the Economy  
Committee on Energy and Commerce  
United States House of Representatives  
Washington, DC 20515

The Honorable Ed Whitfield  
Chairman, Subcommittee on Energy  
and Power  
Committee on Energy and Commerce  
United States House of Representatives  
Washington, DC 20515

Dear Mr. Chairman:

The U.S. Nuclear Regulatory Commission appeared before the Subcommittee on Energy and Power and the Subcommittee on Environment and the Economy on Wednesday, April 20, 2016, at the hearing entitled, "Fiscal Year 2017 Nuclear Regulatory Commission Budget." From that hearing, you forwarded questions for the hearing record to Chairman Burns. The responses to those questions are enclosed. If I can be of further assistance, please do not hesitate to contact me.

Sincerely,

  
Eugene Dacus, Director  
Office of Congressional Affairs

Enclosures:  
As stated

cc: The Honorable Bobby Rush, Ranking Member, Subcommittee on Energy and Power  
The Honorable Paul Tonko, Ranking Member, Subcommittee on Environment and the  
Economy

**The Honorable John Shimkus**

**QUESTION 1.**

At the outset of Project Aim, the Commission requested a Strategic Workforce Plan (SWP) to “ensure that the right people with the right skills are in the right place at the right time.” This document was provided to the Commission in February of this year, prior to Commission action on recommendations included in the “Integrated Prioritization and Rebaselining of Agency Activities” report.

**A. How do the FTE reductions included in the Commission’s decision on the report align with the recommendations contained in the Strategic Workforce Plan?**

**B. Will the Chief Human Capital Officer update the SWP to account for the Commission’s recent action on the Integrated Prioritization recommendations?**

**C. What tasks are the FTEs that were identified in the recommendations currently working on?**

**ANSWER.**

A. The Strategic Workforce Plan (SWP) is a continual process used to align the needs and priorities of the Nuclear Regulatory Commission with those of its workforce to ensure the Agency can meet its regulatory and organizational objectives. The SWP will be changed to reflect the Commission’s decisions on the Integrated Prioritization and Re-baselining of Agency Activities report as the agency develops office staffing plans for FY 2017 and for future fiscal years.

B. Yes. The SWP will be updated annually to reflect changes in the environment, current workforce, and long-term human capital needs of the agency, including changes resulting from the Commission's decision on the Integrated Prioritizations recommendations.

C. The FTEs identified in Enclosure 1 of SECY-16-0009, "Recommendations Resulting from the Integrated Prioritization and Re-baselining of Agency Activities" represent work to be shed, de-prioritized, or performed with fewer resources. The Commission approved the staff's recommendation on all but three of the 151 items presented in the paper. The majority of this work is scheduled to be shed, de-prioritized, or performed with fewer resources within 6 months of the Commission's decision (and the remaining work will be shed, de-prioritized, or performed with fewer resources 12 to 18 months later). The Commission is aware of its fiscal obligation to align staffing levels with the agency's approved program of work; its decision can be found in the Staff Requirements Memorandum for SECY-16-0009. The agency is moving staff previously assigned to the tasks identified in the approved recommendations to higher priority work primarily through reassignments and targeted solicitations of interest. In addition, the NRC has implemented hiring restrictions and is currently offering early out and buy out incentives to staff in overage areas, which should accelerate attrition in these areas. As workload changes occur, the agency will continue to assess the sufficiency of these staffing adjustments.

**QUESTION 2.**      **The NRC Principles of Good Regulation state: "The American taxpayer, the rate-paying consumer, and licensees are all entitled to the best possible management and administration of regulatory activities. The highest technical and managerial competence is required, and must be a constant agency goal." Contrary to this principle, the NRC has had documented failures in applying best**

**practices in managing requests for additional information (RAIs) when reviewing licensing actions.**

**From 2000 to 2010, the NRC, on average, completed reactor license renewal application reviews in 24 months and issued 16 RAI letters. However, since 2011, the NRC has, on average, taken 40 months to complete license renewal reviews and issued 28 RAI letters. There is a similar trend with the NRC's review of power uprate applications. From 2000 to 2010, the NRC, on average, completed power uprate application reviews in 10 months and required 11 RAI response letters. However, since 2011, the NRC has, on average, taken 20 months to complete update reviews and required 39 RAI response letters.**

**A. What is the Commission doing to identify the root cause and correct the dramatic increase in the NRC's use of RAIs?**

**B. Will the Commission agree to take the actions necessary to restore the licensing schedule and RAI discipline in place prior to 2011?**

**ANSWER.**

A. The NRC has guidance in place for developing and issuing RAIs. This guidance is periodically updated to reflect best practices and lessons-learned. For example, the Office of Nuclear Reactor Regulation (NRR), which regulates the operating reactor fleet, has implemented strategies to leverage existing efficiencies in the licensing review processes in an effort to reduce the number of RAIs and the time needed to complete a licensing action, in part, by a renewed focus on adhering to office instructions and standard review plans. As a result,

NRR issued guidance that specifies the staff will develop a draft safety evaluation with open items or “holes” before RAIs are written and sent to the licensee. Each RAI needed to address an open item in the safety evaluation has a clear and documented regulatory basis. Prior to issuance, NRR management conducts a review of RAIs to ensure the questions are within the scope of the licensing action and regulations. Furthermore, NRR leverages appropriate communications such as public meetings and teleconferences, in order to enhance clarity and understanding of the RAIs. Lastly, licensing actions on similar issues will be grouped and processed together, if possible, not only to gain efficiency but also to ensure consistency.

For example, following Senator John Barrasso’s questioning of a specific RAI issued to the U.S. Geological Survey research reactor, the staff researched the root cause of unnecessarily requesting foreign ownership, control, or domination information. As a result of its findings, NRR took steps to better inform technical reviewers, including both staff and contractors, of the unique considerations associated with non-routine research reactor reviews. Going forward, technical reviewers will be provided facility-specific information (e.g., facility organization, operating specifications, and core design) so they can correctly implement NRC regulations and guidance when developing and reviewing RAIs for research reactors.

NRR is also taking measures to ensure RAI discipline and licensing review timeliness; however, other factors, have contributed to schedule delays. For example, complex technical issues (e.g., unapproved core neutron fluence calculations, steam dryer analysis, containment accident pressure analysis) have been identified during license renewal and power uprate reviews which have resulted in exceeding the NRC’s timeliness goals. Another factor affecting the review of license renewal application was the NRC’s August 2012 Order (CLI-12-16), which suspended final licensing actions pending completion of the continued storage rulemaking. Final decisions could not be made until the Continued Storage Rule was approved on August 26, 2014.

B. Yes, the NRC is taking and will continue to take the actions necessary to improve the licensing schedule and the RAI discipline. NRR has already issued interim guidance to enhance the RAI process and has obtained additional resources in the form of staff and contract support including more thorough oversight of these contractors. Some of the key items in the guidance that will add discipline to the RAI process include the following:

- NRR staff review of an application will be limited to the scope of the licensing action, and RAIs shall have a clear nexus to information required to make a safety determination regarding the licensing action.
- At the point when RAIs are transmitted from the technical staff to the NRR project manager, the technical staff is expected to have developed a draft safety evaluation (SE). In addition to ensuring that the RAIs contain both a sound technical and regulatory basis, the technical staff should be able to correlate each RAI to a “hole” in the draft SE that the licensee response is intended to fill.
- NRR management will maintain a focus on RAIs. Before sending a second (and any subsequent) round of RAIs in a specific technical area, NRR management will apply additional oversight to discuss the need for a second round of RAIs and whether alternative methods for gathering the necessary information, such as a public meeting or audit, might be more effective and efficient.

**QUESTION 3: As the existing fleet of nuclear power plants undergo steps to maintain and upgrade plant systems, the issue of digital instrumentation and controls, or I&C, is extremely important to address. Replacing antiquated I&C equipment with modern technology in plant systems can provide significant improvements to safety, reliability, and efficiency of nuclear power plants.**

- A. What is the Commission doing to ensure an efficient and reasonable regulatory framework is in place that will facilitate licensees in safely upgrading and modernizing I&C equipment?**
- B. The Commission recently disapproved staff's recommendation that relied on qualitative factors to require certain standards for digital I&C equipment. However, the Staff Requirements Memorandum in the matter did not acknowledge that the staff attempted to justify their recommendation based on qualitative factors, an issue that has been of central concern to this Committee. Did the Commission agree or disagree specifically with the manner in which staff attempted to apply qualitative factors to their justification to impose additional requirements for I&C?**
- C. The Commission has directed the staff to develop an integrated strategy to modernize the NRC's digital I&C regulatory infrastructure. Please describe what considerations and components will be a part of that strategy, as well as the expected timeline and opportunity for stakeholders to provide input.**

**ANSWER:**

A. In a Staff Requirements Memorandum to SECY-15-0106, "Proposed Rule: Incorporation by Reference of Institute of Electrical and Electronics Engineers Standard 603-2009, IEEE Standard Criteria for Safety Systems for Nuclear Power Generating Stations," the Commission directed the staff to develop an integrated strategy to modernize the U.S. Nuclear Regulatory Commission's (NRC's) digital instrumentation and control (DI&C) regulatory infrastructure. The Commission gave direction to the staff to consider the broader context of DI&C regulatory

challenges and indicated that NRC requirements and guidance should not pose an unnecessary impediment to advancement in nuclear applications of digital technology. The Commission also directed the staff to engage in public workshops and meetings with relevant stakeholders to reach a common understanding of the DI&C regulatory challenges, potential solutions, and priorities. The integrated strategy is now with the Commission for consideration.

B. The Commission did not take a position on the staff use of qualitative factors in the proposed rulemaking to incorporate by reference IEEE Std. 603-2009 into NRC regulations. Rather, the Commission disapproved the proposed rulemaking and instead directed staff to develop an integrated strategy to modernize the NRC's DI&C regulatory infrastructure. The Commission directed the staff to consider the broader context of DI&C regulatory challenges and include all related activities being pursued by the staff, including incorporation of IEEE Std. 603-2009 into regulations.

C. The integrated strategy is currently with the Commission for consideration. The integrated strategy has near-term and long-term goals to modernize the regulatory infrastructure. The near-term goals address the most critical issues identified by the NRC staff and industry regarding regulatory oversight of DI&C equipment modifications at operating plants. These issues include the following:

- enhancement to the NRC position on potential common cause failures in digital systems (e.g. software and hardware)
- guidance for digital upgrades to plants without previous NRC approval under Title 10 of the *Code of Federal Regulations* (10 CFR) 50.59, "Changes, Tests and Experiments"
- guidance for commercial grade dedication of digital equipment
- revised guidance to improve the efficiency of the license application review process



The long-term goal addresses further efforts to improve efficiency and the evolving digital technologies that will be used in both future operating reactor upgrades and new reactor technologies. In developing the plan, the staff held public meetings and provided copies of the draft plan for comment to obtain stakeholder input. Staff will continue to engage stakeholders throughout the modernization activities and allow for opportunities to formally provide input on key regulatory enhancements.

- QUESTION 4.**      **With respect to the adequate protection exemption to the backfitting rules, the Commission has stressed that the regulations are presumed to ensure adequate protection of public health and safety and “that presumption can be overcome only if significant new information or some showing that the regulations do not address some significant safety issues,” and that the need to redefine the level of protection that is adequate should be “rare.” Recognizing that there is no prescriptive definition of “adequate protection:”**
- A. Should actions imposing a backfit to provide adequate protection, or redefine the level of protection that is adequate, be relatively rare and require significant new information indicating that a safety issue is not adequately addressed by the Commission’s current regulations?**
- B. Absent extraordinary circumstances, should the Commission make the final decision on whether a backfit fits within one of the adequate protection exceptions?**

ANSWER.

A. Yes.

B. Yes, except in the rare case that the backfit falls within the Commission-delegated authority and is covered by an existing Commission determination on adequate protection with respect to the matter that is the subject of the backfit consideration.

**QUESTION 5.**

**The NRC is statutorily required to recover approximately 90 percent of funding in fees assessed to holders of an NRC license or charged to a license applicant. These fees [are] charged for service or a "thing of value."**

**A. The timing associated with the "fee rule" can impose uncertainties and budgeting challenges for NRC licensees who fund the agency. The NRC releases the draft rule in March, which goes through the public comment period. Then the final rule is published in August at which point the NRC may need to revise its revenue projections to "true up" to the 90% level. This leaves little time for licensees to adequately budget or respond to the final rule. Is the Commission aware of challenges for licensees resulting from timing and a lack of predictability in the fee rule process and how is the Commission addressing those challenges?**

**B. NRC fees are recovered through two mechanisms. The first category, known as "Part 170 fees," are charged for specific actions associated with NRC licensing activities and are therefore variable depending on the amount of billable work that materializes over the**

**year. The second category, known as "Part 171 fees," is charged to various classes of NRC license holders on an annual basis. As a result of this construct, if the Commission miscalculates the variable, or Part 170, charges, license holders under the Part 171 end up being charged more. Please describe how you manage this process to provide predictability for licensees.**

**C. The draft "fee rule" for the current fiscal year calculates the NRC staff "productive hours" to increase this year. I encourage this trend to continue in the upcoming years. How are "productive hours" calculated throughout the organization? For example, does the Chief Human Capital Officer set milestones and track worker productivity to inform this calculation?**

ANSWER.

A. The Commission is aware of the challenges that the process and time required to produce the agency's annual fee rule sometimes present to our licensees. However, the NRC must adhere to a number of requirements related to the issuance of its fee rule, while still making every effort to issue the proposed and final rules in a timely manner. The proposed fee rule may be issued using an estimated NRC budget, but the final fee rule cannot be issued until the NRC receives its enacted appropriation from Congress. Also, Section 553 of the Administrative Procedure Act requires the NRC to give the public an opportunity to comment on a rule proposed by the agency, with certain exceptions, before a final rule can be promulgated. The agency must consider comments received during the comment period before issuing the final rule. In an effort to improve the fee setting process, the NRC has reached out to stakeholders to solicit their ideas for improving transparency, predictability, and fairness, and is currently considering alternative methods for fee setting.

B. The NRC's estimates from Title 10 of the *Code of Federal Regulations* (10 CFR) Part 170, "Fees for Facilities, Materials, Import and Export Licenses, and Other Regulatory Services under the Atomic Energy Act of 1954, as Amended," are driven by input from licensees and applicants. This input provides the basis for the distribution between Part 170 fees and fees assessed under 10 CFR Part 171, "Annual Fees for Reactor Licenses and Fuel Cycle Licenses and Materials Licenses, Including Holders of Certificates of Compliance, Registrations, and Quality Assurance Program Approvals and Government Agencies Licensed by the NRC." Updated workload estimates are also captured between the proposed and final fee rule. The predictability of the Part 170 fees is, therefore, dependent, in part, on any changes made by licensees or applicants to their schedules. The NRC estimates the amount of 10 CFR Part 170 fees based on established fee methodology guidelines (42 FR 22149; May 2, 1977). As in previous years, the NRC applied longstanding principles to calculate the 10 CFR Part 170 estimates based on the analysis of workload and financial data.

C. The productive hours assumption reflects the average number of hours that a technical employee spends on mission-direct work in a given year. This excludes hours charged to categories such as annual leave, sick leave, and holidays as well as hours spent in training and accomplishing general administrative tasks. To ensure realism for purposes of fee calculations, the productive hours assumption is calculated using data obtained from NRC time and labor records.

The NRC does not have a full-time equivalency productivity goal.

**QUESTION 6. For the reactors currently under construction, there will likely be more than a thousand separate Inspections, Test, Analyses, and Acceptance Criteria, or "ITAACs," in total, to review and close-out before the reactors can begin operating. Unless managed closely,**

**the ITAAC process may be an area where unnecessary and costly delays could occur.**

**A. On April 1<sup>st</sup>, the Commission issued a Staff Requirements Memorandum (SRM) approving the ITAAC hearing procedures. The SRM appears that the Commission took some positive steps to improve upon the staff recommendations to be implemented in a manner that complies with the Commission's directions. How will the Commission ensure that the ITAAC hearing procedures are implemented in accordance with the Commission's instructions?**

**B. What other steps are being taken to ensure that the ITAAC process is as efficient as possible – for example, what can be done to ensure that NRC staff complete their review of ITAAC closure notifications in a timely manner?**

**C. Is the Commission requesting adequate resources in its budget for these ITAAC activities, and is the Commission prepared for the “wave” of ITAAC closures anticipated to occur as construction at the reactors in Georgia and South Carolina nears completion?**

ANSWER.

A. The Commission will ensure that the procedures are implemented in accordance with its instructions through the Commission's involvement in the inspections, tests, analyses, and acceptance criteria (ITAAC) hearing process. For example, the Commission, itself, will decide whether to grant any hearing requests. If a hearing request is granted, the Commission will determine whether interim operation may be allowed during the pendency of the hearing. Also, the Commission will issue an order with the detailed procedures and schedule for the hearing,

including a strict deadline for the hearing decision. A presiding officer may extend this strict deadline only upon a showing of unavoidable and extreme circumstances and must notify the Commission with a justification for the extension. After the hearing decision is issued, the Commission will rule on any petitions for review of this decision. Finally, the Commission retains its inherent authority to take action in individual proceedings to ensure that they are being conducted in a fair and timely fashion.

B. The NRC staff has developed comprehensive processes to handle the large volume of work expected late in the construction schedule (referred to as the “wave” in (C) below). The NRC staff tracks each step of the NRC review process and prepares *Federal Register* notices, as required. The NRC staff has been using this process since 2012, and it continuously looks for opportunities to improve efficiency.

C. The Commission has requested adequate budget resources for completing ITAAC activities and is prepared for the large volume of work expected late in the construction schedule. The NRC staff routinely assesses the expected increase in ITAAC closure work as construction continues at the Vogtle and V.C. Summer sites. The requested budget resources are informed by our current understanding of the increased amount and complexity of work. This area of activity will be monitored and adjustments will be made, as necessary. To account for potential staff turnover, internal ITAAC training programs have been developed to ensure that future staff members are properly prepared to complete ITAAC closure work. Additional staff have also been cross-trained in readiness for surging resources, should that become necessary.

**QUESTION 7. Once NuScale submits its design certification application to the NRC, how will NRC plan to make its review process and fees transparent to the applicant and how will the applicant know that the NRC is on track? For instance, will NRC provide progress reviews**

**and reports available to the applicant that clearly indicate whether NRC's review is proceeding as planned – on time and on budget?**

ANSWER.

The process for the NRC to review a design certification (DC) application and to bill the applicant is transparent to both the applicant and to the public. When an applicant submits an application, it is subject to an acceptance review for completeness and technical sufficiency. If the application is accepted for review, the NRC issues a schedule to the applicant that includes intermediate review milestones and an estimate of staff hours for completing the review.

Documented review products—such as requests for additional information (RAIs), safety evaluation reports with open items, and advanced safety evaluation reports—are the NRC staff's deliverables for intermediate milestones and are all made publicly available. These milestone deliverables are important for communicating the progress of the review. Public meetings with the NRC's Advisory Committee for Reactor Safeguards also serve to convey project progress. In addition, the NRC staff holds public meetings with the applicant throughout the review period to communicate project progress, as well as review challenges.

Unique features of the NuScale reactor design will present novel applications of existing requirements and guidance or will likely require exemptions from existing regulations. To facilitate the anticipated NuScale review, the NRC staff has been engaged in pre-application interactions with NuScale for more than 2 years. These interactions have identified potential regulatory issues that warrant further consideration with regard to their applicability or relevance to the NuScale plant design. As a result, the NRC staff and NuScale representatives have had a number of engagements to further the agency's understanding of the NuScale design and to identify and address key regulatory process issues before NuScale submits its application.

These continued interactions are intended to facilitate the development of a complete application by NuScale along with a timely and focused DC application review by the NRC staff. Once NuScale submits its DC application, the NRC will conduct a 2-month acceptance review to verify there is sufficient information provided in the application for the staff to conduct its in-depth review and prepare a safety evaluation report. The acceptance review provides the opportunity for the staff to identify potential challenges to the schedule and to estimate staff review hours based on the quality and comprehensiveness of the application. At the completion of the acceptance review, the NRC will develop a baseline technical review schedule. The staff will also provide NuScale with an estimated budget for completing the application review and the design certification rulemaking. Once the NRC begins reviewing the application, costs associated with the application review will be billed to the applicant every 2 weeks.

The status of the DC application review schedule will be tracked and reported using a project management scheduling program. The NRC is aware of concerns expressed by prior DC applicants regarding schedule uncertainty. Consequently, included in the basis for the cost and schedule estimate is the upfront expectation that the applicant provide a complete and high-quality application, with complete RAI responses received on the agreed-upon schedule; and an expectation for the NRC staff to review and identify any issues early and to clearly and promptly communicate with the applicant any quality, technical, regulatory, or schedule issues that may arise.

**QUESTION 8. Openness is one of NRC's Principles of Good Regulation. Technology has made tracking and logistics incredibly transparent. For example, FedEx tracks hundreds of thousands of packages in real-time, everywhere in the world, down to specific locations and when packages are out for delivery.**



**Last year, this Committee asked [whether] the Commission would consider developing a tracking system for license amendment requests that would be available for licensees to know in real-time the status of their licensing actions. The Commission's response stated that licensing project managers “maintain a tracking system” and “routinely communicate with licensees regarding licensing actions under review.” The response did not address whether the Commission would consider the merits of this proposal. Will the Commission examine options to improve transparency at the Commission, specifically methods to track licensing actions, including the status of project manager review that could be easily accessed by licensees and applicants?**

**ANSWER.**

The routine interactions between licensees/applicants and the NRC project manager provide the same information, and possibly more insights, regarding the status of a licensing review than would a new tracking system. Therefore, the NRC does not consider a new tracking system necessary to provide openness, improve transparency, or perform its regulatory function.

Project managers and licensees have routine communications regarding the status and schedules of licensing actions, which typically include review of basic progress tracking reports. During these conversations, the schedules for each licensing action are discussed, including whether the licensee’s desired review schedule can be achieved, when to expect requests for additional information, and when to expect the safety evaluation, if approved. In addition, the project managers and their direct supervisors are accessible to the licensees by phone or e-mail as issues arise.

**QUESTION 9.**

As part of its mandate the Nuclear Regulatory Commission regulates the medical use of certain radiolabeled products that treat cancer and other life-threatening diseases. The NRC's regulations require that an oncologist treating patients with an anti-cancer therapeutic radiopharmaceutical must be licensed as an "Authorized User." It has come to our attention that the current training and experience requirements create unnecessary burdens and barriers for experienced hematologists and oncologists who would like to become authorized to administer patient-ready doses of alpha- and beta-emitting cancer treatments. Under the current framework, hematologists and oncologists who want to become Authorized Users must complete 700 hours of training and experience, including a minimum of 200 hours of classroom/laboratory training in radionuclide handling techniques. This requirement is inappropriate for patient-ready doses of alpha and beta emitters, which pose minimal safety and handling risks prior to and after administration. In addition, the current requirement has prevented otherwise-experienced hematologists and oncologists from becoming Authorized Users. This has led to a shortage of Authorized Users able to administer therapeutic radiopharmaceuticals, particularly in rural areas. The NRC is currently in the process of finalizing its rule on the "Medical Use of Byproduct Material-Medical Event Definitions, Training and Experience, and Clarifying Amendments." This rulemaking presents an opportunity for the NRC to establish a training requirement commensurate with the precautions necessary to administer

**patient-ready doses of alpha and beta emitters. How does the Commission plan to address this issue in the final rule to either modify the regulations to reduce the training and experience requirements for these lower-risk products, or describe a process for a separate rulemaking proceeding to specifically address this issue?**

ANSWER.

The concerns raised here, as well as opposing views, have been brought to the attention of the NRC staff and Commission and will be addressed in the response to public comments section of the final rulemaking package under development.

These training and experience (T&E) related concerns were reviewed by NRC staff and the NRC's Advisory Committee on the Medical Uses of Isotopes (ACMUI). After review, no changes to the T&E requirements for alpha- and beta-emitting radiopharmaceuticals are included in the current rulemaking now in its final stages. The current rule changes, and clarification of requirements, are in response to other concerns raised by the medical community and the Agreement States over the past 10 years on issues unrelated to T&E requirements for alpha and beta emitting radiopharmaceuticals. Any potential changes to the rule regarding T&E would need to be considered in a future rulemaking, where the regulatory basis could be developed and any changes fully vetted with the medical community and the public during the rulemaking process.

NRC staff will work with the medical community through its usual public process to address any proposed changes to T&E requirements during a future rulemaking. To this end, the ACMUI recently formed a standing subcommittee to evaluate T&E requirements for all types of medical uses, and will provide staff with any recommendations the subcommittee produces.

**The Honorable Markwayne Mullin**

**QUESTION 1.**

In both the 2014 and 2015 Fee Recovery Rules, the NRC has accounted for the reactor closures and the resulting loss of those fees by billing the remaining reactors more to make up for the decrease in revenue. For example, the NRC stated in their 2015 Fee Recovery Rule: *"The permanent shutdown of the Vermont Yankee reactor decreases the fleet of operating reactors, which subsequently increases the annual fees for the rest of the fleet."*

**A. Is it fair and appropriate to increase fees on operating reactors to compensate for the closure of other plants or is that simply the result of how the NRC's fee recovery is structured under the law?**

**ANSWER.**

The fees assessed to licensees and applicants by the U.S. Nuclear Regulatory Commission (NRC) conform to the Omnibus Budget Reconciliation Act of 1990 (OBRA-90), which requires the NRC to collect approximately 90 percent of its annual budget authority through both user fees and annual fees. The NRC's fee structure is designed to collect fees in the most fair and equitable manner possible as we execute the requirements of OBRA-90.

**QUESTION 2.**

**The NRC's FY 2017 budget shows a reduction of 90 FTE, but a cost reduction of only \$4.8 million in the NRC programs. The NRC estimates the average cost of an FTE is \$165,000.**

**A. A reduction of 90 FTE should yield approximately \$14.8 million in savings. If the NRC is reducing its staffing levels, why doesn't it result in more cost savings?**

**B. The FY 2017 budget proposes 3,537 in FTE. However, NRC testimony elsewhere indicates the NRC will end FY 2017 with 3,344 FTE. How will the NRC ensure that these savings are realized and licensees are not unfairly charged for the cost of empty chairs?**

**ANSWER.**

A. The cost savings achieved by the 90 FTE reduction were offset by a slight increase in contract support and travel and a Government wide pay raise in FY 2017, resulting in a net decrease of \$4.8 million.

B. The NRC will base the FY 2017 Fee Rule on the FY 2017 appropriation received from Congress and will include the FTE level approved by the Commission. On April 13, 2016, the Commission issued Staff Requirements Memorandum-SECY-16-0009, "Recommendations Resulting from the Integrated Prioritization and Re-baselining of Agency Activities," which approved 148 out of the 150.6 FTE proposed for reduction. With these reductions, the NRC can operate at an FTE level of 3,342 FTE in FY 2017, excluding the Office of the Inspector General and reimbursable FTE.

**QUESTION 3.**      **The NRC expects to spend \$305 million on corporate support spending for 2016. The NRC has budgeted \$319 million for corporate support spending in FY 2017 with the potential reduction to \$315 if Project Aim efficiencies are implemented. However this amount**

**doesn't count \$26.3 million in corporate support spending that is proposed to be "re-aligned" to no longer count as corporate support. For an apples-to-apples comparison, this means corporate support spending will increase \$36 million in spite of Project Aim.**

**A. Please provide a detailed description of actions the NRC is taking to achieve actual reductions in corporate support costs that do not involve renaming, realigning, or simply accounting differently for the same costs by transferring them to the business units.**

**B. Please include when those actions will yield actual savings evident in the size of the NRC's budget and the amount of those savings.**

ANSWER.

The NRC is implementing the Corporate Support Resources Realignment described in the fiscal year (FY) 2017 budget request during FY 2016. As a result, a net of \$24.6 million was re-aligned to the program business lines in both FY 2016 and FY 2017. Therefore, the \$305 million (FY 2016) and \$319 million (FY 2017) amounts for corporate support referenced above are comparable. Now that the Commission has approved re-baselining efficiencies, an additional \$3.6 million in savings will reduce FY 2017 requirements. After this reduction, the true delta between FY 2016 Enacted and FY 2017 Project Aim re-baselined levels will be \$10 million. The NRC is continuing to look for additional efficiencies to apply to the FY 2017 budget.

In a March 24, 2016 memorandum, "Resources Allocated to the Corporate Support Business Line," the EDO and CFO instructed the directors of the large corporate offices to work as a group to: (1) analyze corporate support workload and resources in light of the recent agency re-

baselining and declining programmatic workloads and staffing levels; and (2) recommend further reductions to corporate full-time equivalents (FTE) in fiscal year (FY) 2018 and beyond. To identify further efficiencies in light of workload reductions, the corporate office directors recently concluded a review to compare current support requirements to those in place prior to the 2006 implementation of the National Energy Policy Act of 2005. Resulting proposals for additional corporate FTE reductions, if approved by the Commission, will be reflected in the agency's FY 2018 and FY 2019 budget requests.

**QUESTION 4.**        **The NRC testimony states that \$9.9 million in Project Aim savings were applied in the FY 2017 budget, but the NRC's programs only decreased by \$4.8 million.**

**A. Please explain why the NRC characterizes the \$9.9 million as saving if it simply reallocated \$5.1 million to be spent in other ways?**

**B. Of the additional \$31 million in Project Aim savings that could be implemented in FY2017, please estimate the portion that will yield actual savings and the portion that will be re-allocated for expenditure in other ways.**

**ANSWER.**

A. The fiscal year (FY) 2017 budget request included a \$5 million increase for the NRC to perform activities related to the development of regulatory infrastructure for advanced nuclear reactor technologies. This resulted in a net reduction of \$4.8 million as shown in the FY 2017 Congressional Budget Justification.

B. The \$31 million that was identified through Project Aim, and approved by the Commission, is considered to be actual expected savings through the identification of work that may be shed, de-prioritized, or performed with fewer resources. There will be no re-allocation of expenditures in other ways.



**The Honorable Gene Green**

**QUESTION 1.**

In January 2015, the Texas Commission on Environmental Quality (TCEQ) sent a letter to the NRC, requesting clarification on the State of Texas's authority to license the disposal of Greater-than-Class C low-level that may contain transuranic waste. In its response, 15 months later, the NRC said it would have to further examine the issue.

**A. Can you share with the Committee what is the current status of the State of Texas's inquiry?**

**B. What guidance and assistance has the NRC provided to TCEQ regarding its request to license a GTCC waste facility?**

**C. Does the NRC anticipate that regulatory changes will be necessary to allow the State of Texas to license a GTCC waste facility?**

**ANSWER.**

A. On March 9, 2016, the NRC responded to TCEQ's January 2015 letter. The response noted that the Commission had instructed the NRC staff to develop a regulatory basis for the disposal of Greater-than-Class C (GTCC) and transuranic waste within 6 months of the completion of the ongoing rulemaking under Title 10 of the Code of Federal Regulations (10 CFR) Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste." The response also noted that the regulatory basis would analyze whether, in accordance with Section 274c.(4) of the Atomic Energy Act, disposal of GTCC waste presents a hazard such that the NRC should retain authority over its disposal and that this analysis would inform the NRC's final determination regarding TCEQ's jurisdictional questions. Finally, the response noted that

10 CFR 61.55(a)(2)(iv) provides a mechanism by which GTCC waste may be disposed of in a low-level radioactive waste (LLRW) facility licensed under 10 CFR Part 61, and that this case-by-case review is available to parties that seek to dispose of GTCC waste in the near term.

The NRC staff is currently finalizing the ongoing 10 CFR Part 61 rulemaking. The staff has also initiated work to consider the technical considerations that will be the basis for the potential GTCC rulemaking.

B. On March 25, 2015, TCEQ requested the NRC staff perform a peer review of the performance assessment model submitted to TCEQ by Waste Control Specialists, LLC (WCS) on GTCC waste disposal at its Texas site. On August 5, 2015, the NRC provided its peer review comments to TCEQ, which addressed process and technical issues related to the performance assessment.

In April 2016, the NRC, in coordination with TCEQ, performed a special review of the performance assessment model under the auspices of the Integrated Materials Performance Evaluation Program. The model was used for an unrelated disposal of depleted uranium but may provide insights in future potential GTCC activities. On May 16, 2016, the NRC staff issued a publicly available report on the review providing suggestions for improvement.

C. The Commission has directed the NRC staff to prepare a regulatory basis on the disposal of GTCC and transuranic waste, which could result in a rulemaking. The scope of any regulatory changes will become clearer after the regulatory basis is completed. Additionally, the State of Texas may need to revise its regulations to allow the disposal of GTCC and transuranic waste.

**QUESTION 2.**        **Last year, Waste Control Specialists announced it intends to apply to the NRC this year for a license to open a consolidated interim facility in Andrews County, Texas. It is my understanding that this**

**would be the first time a private entity has applied for a license to store nuclear waste.**

**A. Chairman Burns, does the NRC have a plan in place to consider this application? If so, can you provide a brief overview of that process?**

**B. Has the NRC been working with Waste Control Specialists in anticipation of its application? If so, what assistance has been provided?**

**C. How long do you anticipate the review process to take?**

**D. Does the NRC have the resources needed to considered WCS's application in this timeframe?**

**ANSWER.**

Please note that this is not the first time a private entity has applied for a license to store nuclear waste. The Commission issued a license to Private Fuel Storage (PFS) in February 2006; however, PFS was never constructed.

A. Yes, the NRC has a plan in place to consider the WCS application, which was submitted for review in April 2016. The following is a summary of the NRC licensing process that is applicable to staff's review of the WCS application:

- Applicant develops an application and can engage in public pre-application meetings with the NRC (optional, but highly encouraged).
- Application is submitted for NRC review.
- The NRC conducts an acceptance review to determine if the application contains sufficient information to allow the NRC to conduct a detailed review.

- If the application is accepted for review, a notice of docketing, notice of proposed action, and opportunity for a hearing is published in the *Federal Register*, and interested persons are able to submit requests for hearing and intervention petitions. Notices associated with staff's environmental evaluation are also published.
- Once the application is accepted for review, NRC safety, environmental, and security reviews begin.
- If an intervention petition is granted, the hearing process begins.
- Depending on the application, the NRC will conduct an environmental review and document the results in an environmental impact statement.
- During the NRC's review, there will be interactions with the applicant, many in the form of public meetings, for the NRC to ask additional questions regarding the application.
- If the NRC determines that all pertinent regulations are satisfied (and once the hearing process concludes), a license will be issued.

B. Yes. As part of the NRC's licensing process, applicants are encouraged to engage in pre-application meetings to enable the agency to communicate NRC expectations and allow the applicants to describe their intentions and approach. To meet these goals, several pre-application meetings were held with WCS before its application submittal in April 2016. NRC staff also conducted an audit of the draft WCS application in March 2016 and provided information to the applicant about requirements for the contents of the application.

C. The staff is currently conducting an acceptance review. If the application is accepted, the associated safety, security, and environmental reviews could be completed in approximately 3 years after the application is accepted for review at an estimated cost of \$5 million for NRC staff plus \$2.5 million for environmental contract support. This assumes the application is submitted as described in pre-application meetings with WCS. If a hearing is sought and granted, the

additional time and cost to complete the hearing process will depend on the complexity of the issues.

D. Because of the uncertainty of receiving an application for interim consolidated storage during fiscal year (FY) 2016 budget formulation, the necessary resources to conduct the safety, security, or environmental reviews of the WCS application were not included in the FY 2016 budget. However, the NRC has estimated the agency and contract resources required to complete the associated safety, security, and environmental review activities in FY 2016. The agency is re-prioritizing its staff resources to support completion of this work in FY 2016. Funding for necessary contract support of the environmental reviews in FY 2016 is being sought within the agency. Funding for all associated review activities are included in the FY 2017 budget request and will be included in the budget formulation process for FY2018.