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

July 12, 2016

The Honorable James M. Inhofe
Chairman, Committee on Environment and
Public Works
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The U.S. Nuclear Regulatory Commission appeared before the Committee on Environment and Public Works on April 6, 2016 at the hearing entitled, "Oversight Hearing: The President's FY2017 Budget Request for the Nuclear Regulatory Commission." From that hearing, you forwarded questions for the hearing record to the Commission. The responses to those questions are enclosed. If I can be of further assistance, please do not hesitate to contact me at (301) 415-1776.

Sincerely,

Eugene Dacus, Director
Office of Congressional Affairs

Enclosures:
(As stated)

cc: Senator Barbara Boxer

The Honorable James Inhofe

QUESTION 1. **In 1998, the Commission conducted a stakeholder engagement process that identified several areas for improvement, including the timeliness and fiscally responsible review of licensing actions; stricter application of the backfit rule; the systematic application of a clear standard of safety significance in regulatory decision-making rather than vague terms such as enhanced defense-in-depth; more disciplined use of Requests for additional Information, or RAIs; and the need for an objective, quantitative assessment of safety performance. During the April 6th hearing, you committed to hold a similar stakeholder meeting within three months.**

a. Please describe steps taken since April 6th pursuant to this commitment [to hold a stakeholder meeting] and the Commission's Plans for the stakeholder engagement meeting(s) including the scope of the process, the timeframe for conducting the meeting(s) and completing the process, and plans for identifying participating stakeholders.

b. Following the 1998 stakeholder engagement meeting, then-Chairman Shirley Jackson tasked the NRC's Executive Director for Operations (EDO) with action on a set of high-priority tasks identified in the stakeholder meeting. The Executive Director responded in less than a month with a plan to address issues that had been raised both in the meeting and by Congress. During the April 6th hearing, you committed to task the current EDO with a similar responsibility and to report progress to this Committee every

couple of months. Please describe the plans for you and your fellow Commissioners to work with the EDO to ensure proper implementation of key outcomes and recommendations from this stakeholder process.

c. Please confirm that the stakeholder meeting will be conducted by July 6, 2016.

d. Please confirm that the first progress report to this committee will be provided by September 6, 2016.

ANSWER.

a. Following the oversight hearing on April 6, 2016, the Office of the Secretary identified records from the previous meetings with stakeholders beginning July 17, 1998, for Commission and staff review. Discussions have been held internally and externally on potential ways to structure a stakeholder meeting, and participants who could represent the wide range of interest in NRC work. The Commission is in the planning process for the meeting. Stakeholders are being invited to share their perspectives on the NRC's regulatory programs, provide examples to illustrate their concerns, and offer recommendations and solutions. Specific areas of focus may be identified but would not limit topics for discussion.

The Commission considered the timeframe for conducting the meeting with a focus on conducting a thoughtful and productive meeting and giving stakeholders sufficient notice to participate. We are planning to hold this meeting on July 26, 2016.

b. Consistent with its normal practice, the Commission plans to issue a staff requirements memorandum (SRM) following the stakeholder meeting providing direction on any actions the Commission expects to be taken based on input received during the meeting.

c. The Commission considered the timeframe for conducting the meeting with a focus on planning a productive meeting and giving stakeholders sufficient notice to participate. We plan to hold this meeting on July 26, 2016.

d. The first progress report to the Committee will be provided within 2 months of the date of the meeting.

<u>QUESTION 2.</u> **In SECY 14-0087, the Commission gave direction to the staff regarding the use of qualitative factors, stating:**

"The appropriate degree of weight of application of qualitative factors in regulatory decision making ultimately lies with the Commission."

However in response to questions following the October 7, 2016, hearing, the NRC responded that the Commission's direction was limited to regulatory and backfit analyses.

a. Does that mean the Commission's purview with regard to the application of qualitative factors is limited to regulatory and backfit analyses and that the NRC staff is otherwise free to utilize qualitative factors elsewhere, as with the Reactor Oversight Process?

b. The FY2017 budget indicates the NRC missed its timeliness metric for the Significance Determination Process by only one day in 2014, and because of a complicated issue at one plant in 2015. Please describe why it is necessary to inject additional subjectivity into the process when the NRC has only narrowly missed its timeliness metric.

ANSWER.

a. No. While the Commission paper SECY-14-0087, "Qualitative Consideration of Factors in the Development of Regulatory Analyses and Backfit Analyses," described the staff's plans for updating guidance regarding the use of qualitative factors in these analyses, the Commission direction as a result of that paper provided several high-level principles. Those principles stated that the staff's use of qualitative factors should continue to be disciplined, transparently documented, and used to inform Commission decisionmaking in limited cases when quantitative analyses are not possible or practical (i.e., due to lack of methodologies or data). The Commission also reinforced that the determinations on the appropriate degree or weight of application of qualitative factors in regulatory decisionmaking are—and must remain—the province of the Commission. As such, any substantive change in the weight given to qualitative factors elsewhere, such as within the Reactor Oversight Process requires Commission approval.

b. The Commission provided direction to the staff in the SRM to COMSECY-14-0030, "Proposed Suspension of the Reactor Oversight Process Self –Assessment for Calendar Year 2014," which states that the "staff should work to streamline the Significance Determination Process and establish appropriate timeliness metrics for finalizing inspection findings." The staff is developing process enhancements designed to reduce overall time required from discovery of an issue to a final regulatory decision without introducing additional subjectivity into the process. In addition, the staff is considering revisions to the current timeliness metric because it only measures the time from completion of inspection activities until completion of the significance determination, and it does not consider other steps in the inspection process, such as conduct of the inspection itself. The Commission will continue to closely monitor the staff's activities in this regard, and recently issued direction to the staff that any proposed significant changes to the Significant Determination Process should be provided to the Commission.

<u>QUESTION 3.</u> **During the hearing, the Commission testified that it has been actively engaging with the staff regarding the development of proposals to modify the reactor oversight process, and that the staff was soliciting stakeholder input on proposed modifications. The Commission noted that, while some modest adjustments may be within the staff's authority to make, any proposal that would have a significant impact to the program would require prior Commission approval.**

a. What is the status of the proposals to modify the reactor oversight process?

b. When does the Commission expect to receive the staff's paper on the proposed changes, including those that require Commission endorsement or approval?

<u>ANSWER.</u>

a. The staff has two efforts underway to explore enhancements to the Significance Determination Process (SDP), which is used to evaluate inspection findings under the reactor oversight process. The first is the streamlining activity referenced in the response to Question 2b. This activity is focused largely on management oversight using existing program principles and will be tested internally over the next 6 to 12 months to assess its effectiveness before full implementation. The staff has conducted public meetings with industry and other stakeholders to discuss these potential changes and to seek feedback, and it has incorporated that feedback into documents associated with the process to be tested.

The second effort is to reduce the subjectivity of Inspection Manual Chapter 0609, "Significance Determination Process," Appendix M, "Significance Determination Process Using Qualitative

Criteria." Appendix M is used when quantitative SDP tools are unavailable or have limitations that prevent their appropriate use, which historically has been only 13 percent of inspection findings with "greater-than-green" significance. The SRM to SECY-13-0137, "Recommendations for Risk-Informing the Reactor Oversight Process for New Reactors," directed the staff to evaluate the need to provide additional clarity on the use of qualitative factors for operating reactors to provide more transparency and predictability to the process. Since the use of Appendix M has drawn significant interest from internal and external stakeholders, staff has developed a project plan that seeks active participation of industry and other stakeholders to develop an enhanced Appendix M document for SDP decisionmaking. The goal is to make Appendix M more objective, structured, repeatable, predictable, and transparent than the current Appendix M process.

b. The Commission has recently directed the staff to provide all proposed significant changes or pilot programs related to the Reactor Oversight Process to the Commission, accompanied by thorough, data-driven analysis that clearly identify the program performance issues that need to be addressed. In addition, the staff is developing criteria to define when Commission approval is needed for changes to the Reactor Oversight Process, and those criteria will be provided for Commission approval.

If proposed changes described in the response to item "a" meet these criteria and require a Commission vote, a paper would likely be developed in early 2017. Otherwise, the status of updates to the Reactor Oversight Process are communicated to the Commission in the staff's annual Reactor Oversight Process Self-Assessment paper.

<u>QUESTION 4.</u> **If a plant receives a "white" finding in the Reactor Oversight Process, that finding is reported for a full year. If the plant fixes the**

problem and the NRC inspects and verified that fix within three months, the NRC continues to show the white finding for a year even though the problem has been resolved.

a. Please describe the justification for apparently misleading the public by indicating a plant is deficient even after the problem is corrected and has returned to normal.

ANSWER.

The concept of inspection findings counting towards plant assessment for a minimum of 1 year has been part of the Reactor Oversight Process since its inception in 2000. Inspection Manual Chapter 0308, "Reactor Oversight Process Basis Document," Attachment 4, "Technical Basis for Assessment," provides the basis for this concept:

> An inspection finding is normally carried forward in the assessment program for a total of four calendar quarters. This is done to account for the fact that some inspections are only conducted once per year, and carrying inspection findings forward for 12 months allows an inspection result to have influence on the assessment program until the next inspection is conducted. Further, holding inspection findings open for 12 months allows them to accumulate with subsequent inspection findings (similar to PIs [performance indicators]) to indicate more pervasive and significant performance problems that require an increased level of interaction per the action matrix. Inspection findings would not be able to accumulate in this manner if they were not held open for 12 months. However, an inspection finding will not be removed from consideration of future agency actions (per the action matrix) until the identified weaknesses in the root cause evaluation associated with the inspection finding have been corrected.

The staff is determining if removing this requirement would encourage more timely licensee corrective actions and issue resolution. All stakeholders will be engaged as part of evaluating this proposal. A change of this nature would require a Commission vote for approval.

QUESTION 5. **Do you agree that the NRC should be able to establish, and its licensees and applicants rely on, schedules that assume NRC will live up to its commitment to process licensing amendment requests efficiently?**

a. Do you agree that the NRC staff should adhere to its internal procedures to ensure timely and disciplined review of license amendment requests?

b. Does NRC have the right mix of knowledgeable experts to support sets necessary to manage its licensing workload?

c. What is NRC's long-term strategy for ensuring the capability to provide predictable, reliable, and timely processing of license amendment requests?

d. Considering the NRC's performance metric of completing 95% of license amendment reviews in one year, what percentage could be done in 6 months? How much might the NRC save by implementing that stretch goal?

ANSWER.

Yes, licensees and applicants should be able to rely on schedules that assume the NRC is processing licensing amendment requests efficiently. This is consistent with the NRC's

“Principles of Good Regulation,” which include the attributes of efficiency and reliability. The NRC’s goal is to process most licensing actions within 1 year. In certain instances involving complex issues, the review could exceed 1 year. In these instances, the project manager will communicate with the licensee to ensure the licensee is aware of the established schedule.

a. Yes, the NRC staff should adhere to its internal procedures to facilitate timely and disciplined reviews of licensing actions. As part of ongoing process improvement activities, interim guidance was issued to the NRC staff in January 2015 and updated interim guidance in April 2016 which provides expectations to reinforce consistency of the licensing review process, sound decisionmaking, and adherence to the review schedule.

b. Yes, the NRC has the right mix of knowledgeable experts to support the licensing workload. Because of the redirection of agency resources to process Fukushima-related actions, the NRC saw a decrease in the completion of licensing actions within 1 year. This was, in part, because the Fukushima actions competed for the same critical skill sets as the licensing actions. With the Fukushima workload expected to level off and decrease approaching 2017, NRC resources currently dedicated to Fukushima actions will return to support other mission-related activities (e.g., licensing action workload). As the timelines for licensing actions return to normal, the NRC management team has been refocusing technical and project management capacity to support other mission-critical work.

c. NRC management is estimating the resource needs for the next 5 years. In January 2016, NRC staff issued a generic communication, “Planned Licensing Action Submittals for All Power Reactor Licensees,” seeking voluntary feedback from reactor licensees regarding projected licensing actions that may be submitted over the next 2 years and extended power uprates over the next 5 years. The data from the responses are being analyzed to assist with resource planning in critical skill set areas, as well as with the prioritization of licensing activities.

As mentioned previously, NRC management issued updated guidance in April 2016, which provides expectations to reinforce consistency of the licensing review process, sound decisionmaking, and adherence to the review schedule. This guidance includes expectations regarding:

- Managing complex actions.
- Reviewing actions for acceptability.
- Adhering to the licensing processes.
- Increasing management attention during various steps in the licensing review.
- Increasing attention on the request for additional information (RAI) process (see Question 22 for additional information on the RAI process).

This interim guidance will be incorporated into the appropriate NRC office procedures by the end of the year.

NRC management holds periodic meetings to discuss open licensing actions, develop alignment on the best approaches to completing those actions, and monitor licensing metrics. These meetings are focused on:

- Stabilizing and recovering from the licensing backlog.
- Ensuring consistency in the processing of similar license amendments.
- Obtaining additional resources, in the form of staff and contract support, to ensure timely reviews.

d. Although there are some instances when licensing reviews can be completed in 6 months, the goal is to complete the reviews for most licensing actions within 1 year. This is primarily because of the many necessary steps of the public licensing process, some of which are not

under NRC control and some of which cannot be performed in parallel. These steps include the following:

- Reviewing the application for acceptability.
- Notifying the public of its opportunity to request a hearing.
- Drafting a safety evaluation.
- Determining and drafting any RAIs.
- Providing the licensee with an opportunity to review the draft RAIs and request a clarification phone call.
- Scheduling and holding any needed clarification phone call.
- Reviewing the RAI responses after they are submitted by the licensee.
- Completing and issuing the safety evaluation, if appropriate.

Applying a stretch goal of 6 months to licensing action reviews would likely not save any resources because the various steps of the licensing process must still be performed for each licensing action.

The NRC targets a subset of license amendments for approval within 6 months—those that adopt pre-approved technical specification changes submitted by the technical specification task force, as part of the Consolidated Line Item Improvement Process (CLIIP). In these cases, efficiencies have been gained through the pre-approval of the generic changes and, when adopted verbatim by a licensee, require minimal plant-specific information or justification for their use.

Finally, the NRC staff will allocate the resources to support a licensee needing a relief request related to the startup of the plant. Because of the potential impact to plant operations, this takes precedence over non-urgent relief requests and the reviews are performed in an expedited

manner. The NRC regulations allow for a licensee to request a license amendment and for the NRC staff to approve a license amendment in an expedited fashion. These types of amendment requests, submitted under exigent or emergency circumstances, are reserved for unforeseen scenarios in which the licensee cannot use the normal process for submitting a license amendment request. In these cases, the NRC staff will prioritize exigent or emergency amendments above other amendments to meet the licensee's requested target issuance date.

QUESTION 6. **Please provide the trends for the last ten years, including year-by-year percentage changes, with regard to timeliness and efficiency performance metrics for the following: license amendments for reactor and materials licensees, power uprates, license renewals, COLS, early site permits, design certifications.**

ANSWER.

Routine Licensing Actions for Reactor Licensees

The licensing performance metrics, as provided in the Congressional Budget Justification (CBJ), for the last 10 years are shown below. The data indicate there has been a decrease in the timeliness of licensing action completions. This was in part due to the Fukushima actions competing for the same critical skill sets as the licensing actions. The NRC has made a concerted effort to reduce the backlog and move licensing action timeliness back within the standard. The NRC efforts have reduced the licensing backlog and improved timeliness. The current FY 2016 average for completing routine licensing actions in less than 1 year is now approximately 94 percent, an increase of approximately 6 percent from FY 2015.

Table 1: Reactor Licensing Action Timeliness Since 2006

	1 Year Timeliness	1 Year Metric	2 Year Timeliness	2 Year Metric
2006	97.6%	96.0%	99.9%	100.0%
2007	96.9%	96.0%	100.0%	100.0%
2008	94.6%	96.0%	100.0%	100.0%
2009	94.0%	93.0%	100.0%	100.0%
2010	93.0%	90.0%	100.0%	100.0%
2011	90.3%	95.0%	99.9%	100.0%
2012	95.8%	95.0%	100.0%	100.0%
2013	95.0%	95.0%	100.0%	100.0%
2014	87.0%	95.0%	99.0%	100.0%
2015	88.3%	95.0%	96.9%	100.0%
2016*	94.3%	95.0%	100.0%	100.0%

*Through April 2016

Licensing Actions for Materials Licensees[1]

The NRC tracks the reviews of new licenses and amendments against a 90-day metric and a 2-year metric (the metric was 1 year, prior to FY 08). The agency tracks reviews of license renewals and sealed source device design (SSD) applications against a 180-day metric and a 2-year metric. The number of all of these licensing actions and the associated metrics for the last 10 years are shown below.

Table 2: Materials Licensing Action Timeliness Since 2006

Fiscal Year		'06	'07	'08	'09	'10	'11	'12	'13	'14	'15
Number of Licensing Actions	Metrics	3030	2700	2926	2900	2460	2335	2166	2021	1994	2075
New and Amendments	90-day	98%	98%	98%	97%	95%	97%	97%	96%	94%	95%
	2-year (1-year for FY 06 and FY 07)	99.8%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Renewals and SSD	180 day	94%	98%	94%	91%	95%	97%	98%	97%	93%	94%
	2 year	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

[1] Materials Licensees are limited to those applicable to the Nuclear Materials Users business line. The trending information for the three other Materials and Waste major program business lines (that is, Fuel Facilities; Spent Fuel Storage and Transportation; and Decommissioning and Low Level Waste) are summarized after Table 8. *License Amendment Application Performance Results.*

Power Uprates

The NRC performs reviews of three different kinds of power uprates: measurement uncertainty recaptures (MURs), stretch power uprates, and extended power uprates (EPUs). For applications received before June 2012, the timeliness review goals for MURs was 6 months; for stretch power uprates, 9 months; and for EPUs, 12 months.[2] Based on experience, and to reflect a more appropriate performance goal, the agency revised its timeliness review goals in 2012 to 9, 12, and 18 months, respectively.[1] A number of technical issues have resulted in reviews exceeding the NRC's timeliness goals (e.g., issues related to steam dryer analysis, containment accident pressure analysis, and licensing and design-basis analyses). In addition to these complex technical issues, some delays occurred because of competing staff priorities. Further information regarding some of the specific issues that impact power uprate reviews is provided in SECY-12-0084 and SECY-13-007.

The NRC does not review a significant number of each type of power uprate to provide a meaningful timeliness percentage for each. Instead, the agency has provided the number of each type of power uprates issued and the number that have met the timeliness goals for the past 10 years.

[2] These goals do not include the duration of the staff's acceptance review, which the staff conducts upon receipt of the initial application.

Table 3: Summary of Power Uprate Timeliness Since 2006

	Measurement Uncertainty Uprates			Stretch Uprates			Extended Power Uprates		
	Quantity Issued	**Timeliness Goal (months)**	**Quantity Meeting Timeliness Goal**	**Quantity Issued**	**Timeliness Goal (months)**	**Quantity Meeting Timeliness Goal**	**Quantity Issued**	**Timeliness Goal (months)**	**Quantity Meeting Timeliness Goal**
2006	1	6	1	N/A	9	N/A	4	12	3
2007	1	6	1	1	9	1	N/A	12	N/A
2008	4	6	3	3	9	2	3	12	2
2009	4	6	2	N/A	9	N/A	N/A	12	N/A
2010	6	6	6	N/A	9	N/A	N/A	12	N/A
2011	2	6	0	N/A	9	N/A	3	12	0
2012	1	6	0	N/A	9	N/A	5**	12	0
2013	2	6*	0	N/A	12	N/A	1	12*	0
2014	5	6*	0	N/A	12	N/A	2	18	2
2015	N/A	9	N/A	N/A	12	N/A	N/A	18	N/A
2016	2	9	0	N/A	12	N/A	N/A	18	N/A

* The timeliness metric was changed for applications received after June 2012. The approvals issued in 2013 and 2014 were for applciations received prior to June 2012; therefore, the previous timeliness goal applies.
**There were four EPUs approvals in 2012 (Turkey Point 3/4 and St. Lucie 1/2) which authorized a combined EPU and MUR. Only the EPU is referenced in this table.

License Renewals

License renewal timeliness for the last 10 years, is shown in Table 4. NRC staff has set goals of 22 months for an uncontested application without significant technical issues and 30 months for a complex and/or contested application. A goal of 27 months was set for the Byron and Braidwood application to account for the fact that it was a single application addressing four units at two sites. In some cases, there are mitigating circumstances that contributed to the goal not being met. Generally speaking, the goals were not met due to the development and approval of the Continued Storage rule, adjudicatory issues, and technical issues raised during the review requiring resolution.

Table 4: License Renewal Performance Results

License Renewal Timeliness Since 2006

Year*	Applicant	Goal (months)	Actual (months)
2006	Vermont Yankee	30	60
2006	Pilgrim 1	30	74
2006	FitzPatrick	22	27
2006	Susquehanna 1 & 2	30	37
2006	Wolf Creek 1	22	25
2006	Harris 1	22	25
2007	Vogtle 1 & 2	22	22
2007	Beaver Valley 1 & 2	22	25
2007	Indian Point 2 & 3	30	Currently under review
2008	Three Mile Island 1	22	19
2008	Prairie Island 1 & 2	30	36
2008	Cooper	22	23
2008	Duane Arnold	22	22
2008	Kewaunee	22	29
2008	Palo Verde 1, 2 & 3	22	23
2009	Salem 1 & 2	22	20
2009	Diablo Canyon 1 & 2	30	Application Suspended****
2009	Hope Creek 1	22	21
2010	Columbia 2	22	26
2010	Davis Besse 1	30	62
2010	Seabrook 1	30	Currently under review
2010	South Texas Project 1 & 2	22	Currently under review
2011	Limerick 1 & 2	30	38
2011	Callaway 1	30	37
2011	Grand Gulf 1	22	Currently under review
2013	Sequoyah 1 & 2	30	31

2013	Byron 1 & 2	27	28
2013	Braidwood 1 & 2	27	30
2014	Fermi Unit 2	22	Currently under review
2014	LaSalle 1 & 2	22	Currently under review
2016	Waterford 3	22	Currently under review

New Reactor Licensing

Before 2013, the timeliness and efficiency performance metrics for early site permits (ESP) and design certifications (DC) were captured and reported in narrative form in the annual CBJ. These narratives included descriptions of specific ESP and DC targets, and the annual results. From 2007 through 2012, all targets were met for ESPs and DCs. Beginning with FY 2013, performance has been measured in terms of meeting a percentage of milestones within the NRC's control. Since these metrics were established, the NRC has consistently met its annual performance targets.

Table 5. Early Site Permit Application Performance Results

Performance Results for ESP Applications through FY 2016 (Q2)		
Fiscal Year	Target	Results
2007	Complete milestones for Vogtle ESP application.	Completed (100%)
2008	Complete North Anna ESP Review.	Completed (100%)
2009	Complete 1 ESP review for Vogtle.	Completed (100%)
2010	No ESPs planned for 2010.	Completed milestones for 2 ESP reviews (Vogtle & PSEG) (100%)
2011	No ESPs planned for 2011.	N/A
2012	Review Victoria and PSEG applications.	Continued PSEG; Victoria withdrawn (100%)
2013	Meet 85% of published interim milestones.	(100%)
2014	Meet 85% of published interim milestones.	(100%)
2015	Meet 85% of published interim milestones.	(100%)
2016	Meet 85% of published interim milestones.	Q1: 85%, Q2: 100%

Table 6. Design Certification Application Performance Results

Performance Results for DCs through FY 2016 (Q2)		
Fiscal Year	Target	Results
2007	Complete milestones for ESBWR DC. Issue draft SER for ESBWR.	Completed (100%)
2008	Complete milestones for ESBWR & AP1000. Begin EPR & U.S.-APWR review.	Completed (100%)
2009	Complete milestones for ESBWR, U.S. EPR & U.S.-APWR; Completed AP1000 DC review.	Completed (100%)
2010	Complete review of ESBWR DC and (amended) AP1000 application. Continue review of U.S. EPR & U.S.-APWR applications.	Completed (100%)
2011	Complete review of ESBWR application and AP 1000 amended application; continue review of EPR and APWR DC applications.	Completed (100%)
2012	Complete rulemaking activities for AP1000 amendment, and U.S.-ESBWR and U.S.-APWR aircraft impact assessment amendments. Complete review of EPR design. Begin rulemaking for the EPR and the US-APWR.	Completed (100%)
2013	Meet 85% of published interim milestones.	(100%)
2014	Meet 85% of published interim milestones.	(100%)
2015	Meet 85% of published interim milestones.	(100%)
2016	Meet 85% of published interim milestones.	Q1: 85%, Q2: 100%

As with ESPs and DCs, COL timeliness and efficiency performance metrics from FY 2007–2012 were captured and reported in narrative form through the annual CBJ process. The COL narratives included targets to complete milestones associated with a set number of COL applications each year with the exception of FY 2007, in which only pre-COL application interactions were planned. In FY 2008, the NRC established targets to complete all milestones for COL applications. Unlike ESPs and DCs, the targets to complete COLs did not factor in delays or suspensions at the request of applicants. It became evident that a more reasonable target needed to be established with consideration given to milestones affected by circumstances beyond the NRC's control. For example, in 2011 there were five COLs suspended by the applicants, which caused the NRC to miss its annual target. Beginning with FY 2013, the NRC adjusted what had been a metric of 100 percent to a more appropriate

85 percent, which is now tracked and reported on a quarterly basis and reflected in the CBJ. The metric does not penalize the NRC for missing milestones outside of its control.

Table 7. Combined License Application Performance Results

The performance results for COLs through FY 2016 (Q2)			
Fiscal Year	Target	Actual	Results
2007	N/A	N/A	N/A
2008	14	14	100%
2009	20	18	90%
2010	20	13	65%
2011	17	12	71% (5 COL applications suspended by applicants)
2012	20	10	50%
2013	Meet 85% of published interim milestones.		(100%)
2014	Meet 85% of published interim milestones.		(100%)
2015	Meet 85% of published interim milestones.		(100%)
2016	Meet 85% of published interim milestones.		Q1 & Q2 (100%)

License amendments for new reactors (Vogtle and V.C. Summer) are currently measured against schedules agreed upon with the licensees, with a target of 85 percent completion on schedule. The NRC began measuring timeliness of license amendments in FY 2013 as one of several licensing activities. In FY 2016, the NRC began measuring the timeliness of license amendments as a separate metric using the same target of 85 percent.

Table 8. License Amendment Application Performance Results

Performance Results for License Amendment Applications through FY 2016 (Q2)		
Fiscal Year	Target	Results
2013	Meet 85% of published interim milestones.	(100%)
2014	Meet 85% of published interim milestones.	(100%)
2015	Meet 85% of published interim milestones.	(100%)
2016	Meet 85% of published interim milestones.	Q1 & Q2 (100%)

Licensing Actions for Spent Fuel Storage and Transportation

This business line has been reporting the timeliness of two different types of licenses: (1) storage container and installation design reviews; and (2) transportation design reviews. With the exception of two fiscal years, the reviews have typically been completed within the targeted time periods. The tables below provide results for the last 10 years.

Table 9. Number of Storage Container Install and Design Reviews

Fiscal Year	Completed each fiscal year	Timeliness to complete reviews ≤ xx months (Target)	Results	Timeliness to complete reviews ≤ 2 years (Target)	Results
2006	26	≤ 13.3 months (80%)	85%	≤2 years (100%)	100%
2007	10	≤ 12.6 months (80%)	100%	≤2 years (100%)	100%
2008	11	≤ 12.6 months (80%)	90%	≤2 years (100%)	100%
2009	18	≤ 12.6 months (80%)	82%	≤2 years (100%)	100%

2010	18	≤ 12.6 months (80%)	92%	≤2 years (100%)	100%
2011	11	≤ 12.6 months (80%)	100%	≤2 years (100%)	100%
2012	20	≤ 12.6 months (80%)	71%*	≤2 years (100%)	100%
2013	23	≤ 12.6 months (80%)	46%**	≤2 years (100%)	100%
2014	24	≤ 12.6 months (80%)	94%	≤2 years (100%)	100%
2015	29	≤ 12.6 months (80%)	84%	≤2 years (100%)	100%

Table 10. Transportation Design Reviews

Fiscal Year	Completed each fiscal year	Timeliness to complete reviews ≤ xx months (Target)	Results	Timeliness to complete reviews ≤ 2 years (Target)	Results
2006	81	≤ 7.7 months (80%)	96%	≤2 years (100%)	100%
2007	57	≤ 7.4 months (80%)	92%	≤2 years (100%)	100%
2008	78	≤ 7.4 months (80%)	86%	≤2 years (100%)	100%
2009	93	≤ 7.4 months (80%)	86%	≤2 years (100%)	100%

2010	59	≤ 7.4 months (80%)	87%	≤2 years (100%)	100%
2011	57	≤ 7.4 months (80%)	100%	≤2 years (100%)	100%
2012	51	≤ 7.4 months (80%)	96%	≤2 years (100%)	100%
2013	41	≤ 7.4 months (80%)	89%	≤2 years (100%)	100%
2014	74	≤ 7.4 months (80%)	96%	≤2 years (100%)	100%
2015	58	≤ 7.4 months (80%)	90%	≤2 years (100%)	100%

Licensing Actions for Fuel Facilities

This business line has been reporting the timeliness on licensing actions for amendments. License renewal and major license application reviews were not included as part of these metrics. During the ten-year review of these indicators, the targets and indicators were modified several times, including splitting the type of action into “complex’ and ‘non-complex’ for five fiscal years. These indicator changes make it difficult to provide a continuous trend analysis. All the data below was obtained from the Congressional Budget Justification reports. No results were posted or available for fiscal years 2008 and 2009. Table 11, below, provides a summary of the results for the last 10 years.

Table 11. Fuel Facilities Licensing Actions

Fiscal Year	Completed each fiscal year*	Timeliness to complete licensing actions ≤ xx days (Target)	Results	Timeliness to complete licensing actions ≤ xx years (Target)	Results	Timeliness to complete Complex licensing actions ≤ 1.5 years (Target)	Results
2006	64	≤ 180 days (80%)	95%	≤2 years (100%)	100%		
2007	92	≤ 180 days (85%)	81%[1]	≤2 years (100%)	89%[1]		
2008	85	≤ 150 days (85%)	Not Reported[2]	≤1.5 years (100%)	Not Reported[2]		
2009	115	≤ 150 days (85%)	Not Reported[2]	≤1.5 years (100%)	Not Reported[2]		
2010	109	Non-complex ≤ 150 days (85%)	92%	Non-complex ≤1 year (100%)	100%	Complex ≤1.5 years (100%)	100%
2011	128	Non-complex ≤ 150 days (85%)	92%	Non-complex ≤1 year (100%)	100%	Complex ≤1.5 years (100%)	98%[3]
2012	111	Non-complex ≤ 150 days (85%)	93%	Non-complex ≤1 year (100%)	100%	Complex ≤1.5 years (100%)	96%[4]
2013	149	Non-complex ≤ 150 days (85%)	91%	Non-complex ≤1 year (100%)	100%	Complex ≤1.5 years (100%)	93%[5]
2014	107	Non-complex ≤ 150 days (85%)	98%	Non-complex ≤1 year (100%)	100%	Complex ≤1.5 years (100%)	100%
2015	63	≤ 150 days (80%)	77%[6]	≤2 years (100%)	98%[7]		

Licensing Actions for Decommissioning and Low Level Waste (DLLW)

The DLLW business line reports the timeliness of licensing actions against interim milestones. The existing metric does not penalize the staff for issues arising outside of the staff's control. In addition, the scheduled milestones are set based on the specifics of each application. The

indicator measures the timeliness of two types of licensing actions: (1) decommissioning of facilities for materials, research & test reactors, and power reactors; and (2) uranium recovery licensing actions. The number of each by fiscal year and percent completed in accordance with established schedules has been summarized in Table 12 below.

Beginning fiscal year 2016, the business line established a new metric specific for uranium recovery to measure the percentage of interim milestones completed on or before the scheduled due date with the agency's control. The goal is 85%. Sufficient data is not available yet to report results.

Table 12. Decommissioning and Uranium Recovery Licensing Actions

Fiscal Year	Uranium recovery licensing actions completed each fiscal year	Number of sites decommissioned each fiscal year	Percent completed on schedule
2006	1	8	100%
2007	7	11	100%
2008	11	8	100%
2009	5	1	100%
2010	11	0	100%
2011	12	0	100%
2012	8	2	100%
2013	12	5	100%
2014	12	0	100%
2015	10	3	100%

QUESTION 7. **The current goal for NRC review of a license renewal application is 22 months (uncontested) or 30 months (contested).**

a. Of the 20 most recent license renewal reviews, how many were completed within 22 months of an application being docketed?

b. What actions is the agency taking to restores the efficiency and predictability to these reviews?

c. How will the agency ensure efficient reviews of applications for subsequent license renewal?

d. Please describe any unique or emerging issues that may affect reviews for subsequent license renewal applications that may not be encompassed by existing aging management programs.

ANSWER.

a. The table below shows the review time for the 20 most recent completed license renewal application reviews. Five of the 20 most recent reviews were completed within 22 months of the date the application was docketed. The delays in completing the review of recent license renewal applications were caused by a number of factors, including the approval of the Continued Storage Rule, complex adjudicatory issues, and safety concerns identified by the NRC staff.

Recent License Renewal Applications (LRA) Review Time				
Plant Name	**LRA Received**	**Acceptance Review Letter Issuance**	**Renewed License Issued**	**Review Time (Months)**
Vogtle Electric Generating Plant, Units 1 & 2	06/29/2007	08/15/2007	06/03/2009	22
Three Mile Island Nuclear Station, Unit 1	01/08/2008	03/10/2008	10/22/2009	19

Recent License Renewal Applications (LRA) Review Time				
Plant Name	**LRA Received**	**Acceptance Review Letter Issuance**	**Renewed License Issued**	**Review Time (Months)**
Beaver Valley Power Station, Units 1 & 2	08/28/2007	10/22/2007	11/05/2009	25
Susquehanna Steam Electric Station, Units 1&2	09/13/2006	10/26/2006	11/24/2009	37****
Cooper Nuclear Station	09/30/2008	12/19/2008	11/29/2010	23
Duane Arnold Energy Center	10/01/2008	02/17/2009	12/16/2010	22
Kewaunee*	08/14/2008	09/25/2008	02/24/2011	29
Vermont Yankee**	01/27/2006	03/21/2006	03/21/2011	60****
Palo Verde Nuclear Generating Station, Units 1, 2 & 3	12/15/2008	05/11/2009	04/21/2011	23
Prairie Island Nuclear Generating Plant, Units 1 & 2	04/15/2008	06/10/2008	06/27/2011	36****
Salem Nuclear Generating Station, Units 1 & 2	08/18/2009	10/15/2009	06/30/2011	20
Hope Creek Generating Station, Unit 1	08/18/2009	10/15/2009	07/20/2011	21
Columbia Generating Station, Unit 2	01/20/2010	03/04/2010	05/22/2012	26
Pilgrim Nuclear Power Station	01/27/2006	03/21/2006	05/29/2012	74****
Limerick Generating Station, Units 1 & 2	06/22/2011	08/12/2011	10/20/2014	38***
Callaway Plant	12/19/2011	02/14/2012	03/06/2015	37****
Sequoyah Nuclear Plant, Units 1 & 2	01/15/2013	02/26/2013	09/24/2015	31****
Byron Station, Units 1 & 2	05/29/2013	07/16/2013	11/19/2015	28
Davis-Besse Nuclear Power Station, Unit 1	08/30/2010	10/18/2010	12/08/2015	62****
Braidwood Station, Units 1 & 2	05/29/2013	07/16/2013	01/27/2016	30

* Kewaunee Power Station was permanently shut down on May 7, 2013.
** Vermont Yankee Nuclear Power Station was permanently shut down on December 29, 2014.
*** Time includes the delay caused by development and approval of the Continued Storage Rule resulting from the decision in *New York v. NRC*, 681 F.3d 471 (DC Cir 2012). Limerick Generating Station was also a contested application.
**** Contested application. Time includes the delay caused by NRC adjudicatory proceedings resulting from intervention by members of the public.

b. Over the past few years, the NRC has faced challenges in the licensing program. On June 30, 2014, the Commission directed the staff to consider, in the context of Project Aim, ways to improve the timeliness of licensing actions. In response to the SRM, staff launched several initiatives to focus on how the agency can leverage or revise its existing licensing processes to enhance its efficiency, effectiveness, and predictability while maintaining its

continued strong safety focus. NRC management issued interim guidance to the staff that provides expectations to help ensure consistency of the licensing review process, sound decisionmaking, and discipline of schedule. In addition to the guidance, NRC management is holding periodic meetings to discuss open licensing actions, establish and monitor licensing metrics, and develop alignment on the best approaches to completing those actions.

With respect to license renewal, the NRC staff identification of complex technical issues (e.g., alkali-silica reaction in concrete, selective leaching in aluminum-bronze components, and unapproved core neutron fluence calculations) during recent application reviews resulted in RAIs, which delayed the reviews. In addition to delays caused by complex adjudicatory and technical issues, license renewal decisions after 2011 were delayed because of the NRC's August 2012 order suspending final licensing actions pending completion of the continued storage rulemaking (CLI-12-16). The Continued Storage Rule was approved, and the affected license renewal application reviews were resumed on August 26, 2014. As the reviews continued, the multi-year delay resulted in additional RAIs to address changes described in annual license renewal application updates (e.g., equipment upgrades, operating experience). All schedule changes are documented in publicly available letters on the NRC's Web site under Reactor License Renewal:

(http://www.nrc.gov/reactors/operating/licensing/renewal.html.)

c. The staff is evaluating the current license renewal application review process for use on subsequent license renewal applications.

To optimize staff performance and product quality, the staff is developing a framework for the safety and environmental review of a subsequent license renewal application. Following the development of the framework, the staff will determine the timeline required to support the review in accordance with the available resources.

To date, the staff has evaluated: the expanded use of electronic communications portals that allow remote access to applicant documents, and in-office audit and review activities; focused onsite audit activities; the use of electronic documentation for RAIs; the role of the regional license renewal inspections; and the consideration of additional operating experience developed during the initial period of extended operation. The staff expects to complete the bulk of the framework development in FY 2016 and then focus on developing a regulatory issue summary to inform stakeholders of relevant modifications from the existing license renewal application review process.

d. In response to an NRC staff paper, SECY-14-0016, "Ongoing Staff Activities To Assess Regulatory Considerations for Power Reactor Subsequent License Renewal," the Commission stated the license renewal rule has provided an effective basis for ensuring safe operation during the license renewal period and will continue to be an effective basis for subsequent license renewal.

Consistent with the license renewal rule, the focus of subsequent license renewal is on the adequacy of additional aging management activities to ensure safe plant operations during the subsequent period of extended operation (60 to 80 years). In the past several years, there has been a consensus that the top four technical issues needing further evaluation to provide assurance of safe operation of nuclear power plants for operation from 60 to 80 years are:

- neutron embrittlement of the reactor pressure vessel
- stress corrosion cracking and other types of degradation of reactor pressure vessel internals
- concrete and containment degradation
- electrical cable qualification and condition monitoring

The nuclear industry is responsible for developing the technical basis for long-term operation. Most likely, all of these issues will not be resolved on a generic basis by the time the first

application for subsequent license renewal is submitted. Exelon recently submitted a letter of intent to submit a subsequent license renewal application for Peach Bottom in the third quarter of 2018. Lacking resolution of these issues on a generic basis, the first subsequent license renewal applications will need to address each of these issues on a plant-specific basis. The NRC staff is working with industry on the technical resolutions of these issues to support the subsequent license renewal process. The NRC staff is also collaborating on research activities with both domestic industry organizations (i.e., Electric Power Research Institute and the U.S. Department of Energy Light Water Reactor Sustainability Program), as well as international partners.

The NRC issued on December 15, 2015, the draft "Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report," (NUREG-2191), Volume 1, and Volume 2. It also released the draft "Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants," (NUREG-2192), for public comment. The public comment period ended on February 29, 2016, and the staff is dispositioning the comments. The final guidance documents are expected to be issued in July 2017. The guidance documents can be used by applicants as one acceptable method to demonstrate adequate management of aging during the subsequent license renewal period.

<u>QUESTION 8.</u> **Please summarize the outcomes and directives of the April 1st SRM concerning ITAAC hearing procedures.**

a. Please identify the methods and metrics used by the NRC to track ITAAC Closure Notification (ICN) processing timeframes, along with resources requested by the Commission for ITAAC activities as part of its FY2017 budget submittal.

b. Please describe how the Commission currently plans to process the "wave" of ICN's anticipated to occur as construction at the reactors in Georgia and South Carolina nears completion.

ANSWER.

In the April 1, 2016, SRM for SECY-15-0010, "Final Procedures for Hearings on Conformance with the Acceptance Criteria in Combined Licenses," the Commission provided direction regarding the detailed procedures created to prepare for conducting of future inspections, tests, analysis, and acceptance criteria (ITAAC) hearings. These procedures were developed by a working group with stakeholder input from public meetings and public comments.

The Commission has approved publishing the final procedures, subject to specific revisions to clarify the procedures, the responses to public comments, and the proposed templates for implementing the procedures in individual ITAAC proceedings. The final procedures will be published this summer, and the Commission anticipates that related internal processes to implement these procedures will be developed by the end of 2016. The Commission also provided direction to ensure potential parties are aware of the hearing procedures in advance and to make it easier for interested members of the public to identify and access important ITAAC-related documents. Lastly, the Commission directed the NRC staff to identify lessons learned after the first ITAAC hearings; to propose changes to the procedures, if appropriate; and to inform the agency's Knowledge Management Program.

a. The agency has established a New Reactor business line performance indicator to track the percentage of ITAAC closure notifications (ICNs) with staff reviews completed within 2 months of submittal. The metric is evaluated quarterly, using data from the information technology (IT) platform established to track and process ICNs. Resources for agency ITAAC activities, including ICN processing, are part of the FY 2017 Commission request for $28.2 million and

151.3 full-time equivalents (FTE) in the Oversight product line of the New Reactor business line of the 2017 Congressional Budget Justification.

b. The NRC staff has developed comprehensive processes and an IT infrastructure to handle the wave of ICNs expected as construction nears completion. The NRC staff routinely assesses the expected increase in ITAAC closure work as construction continues, and the requested resources account for the increased amount and complexity of work. 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.

QUESTION 9. **In your opening statement, you referred to a paper recently submitted to the Commission outlining additional areas for longer-term efficiencies and projected workload changes. Please describe the purpose, scope, and status of that paper. As a result of that paper, what longer-term actions does the NRC anticipate taking to achieve additional savings and efficiencies in addition to those listed in your testimony?**

a. When would those changes be implemented and what is the estimate individually and in total, of those savings?

ANSWER.

On March 18, 2016, NRC staff submitted an information paper, SECY-16-0035, "Additional Re-baselining Products," to the Commission. The paper provided the Commission with candidate activities to pursue longer-term efficiencies and improvement projects, as well as a projection of significant changes in workload through FY 2020. The NRC staff is pursuing the actions

identified in Enclosure 1 of SECY-16-0035 that are within the staff's authority to address without additional Commission approval.

a. The target start and completion dates for each activity are provided in Enclosure 1 of SECY-16-0035. All activities are in progress. The first activity slated for completion, review of corporate offices' FTE utilization and workload, was completed on May 3, 2016.

The potential savings from longer-term efficiencies cannot be quantified at this time, as they involve cross-cutting areas that affect multiple offices and regions. However, the projected significant changes in workload through FY 2020 are quantified in FTE and total contract dollars provided in Enclosure 2 of SECY-16-0035.

QUESTION 10. **In your testimony, you cite a reduction in NRC resources of $74 million and 280 FTE since 2014. Please provide the reduction in spending and FTE from FY 2013 to the present.**

ANSWER.

The reduction cited in the testimony was from the FY 2017 President's budget as compared to the FY 2014 implemented budget. The following table shows the decline in NRC resources since FY 2013.

	Total Budget (dollars in millions)	**FTE**
FY 2013 Enacted (Sequestration)	$975.3	3,872
FY 2014 Implemented	$1043.9	3,742
FY 2015 Implemented	$1003.2	3,716
FY 2016 Implemented	$990.0	3,532

FY 2017 President's Budget	$970.2	3,462
FY 2017 Senate appropriations bill	$939.9	3,342

Resources decrease by $35.4 million and 530 FTE between the FY 2013 Enacted (Sequestration) Budget and the FY 2017 Senate Energy and Water appropriations bill, which reflects the Commission-approved savings identified in the Project Aim re-baselining effort.

QUESTION 11. **Please describe, with as much detail as possible, the Commission's current plans and expectations concerning the use of FY 2015 carryover funds in FY 2016 and the amount of carryover funds anticipated in FY 2016 and the NRC plans for use of those funds.**

ANSWER.

As of the end of April, the agency had $23 million in unobligated carryover funding ($18 million in fee-based; $5 million in non-fee-based). The staff anticipates that the agency will carry over no more than $25 million of fee-based unobligated carryover funds into FY 2017. The agency's total carryover projections will be updated at the end of July based on analysis of the NRC's Midyear Resource Review.

For FY 2016, the NRC does not expect to request use of any fee-based unobligated carryover funds from FY 2015, and expects to obligate all of its FY 2016 fee-based appropriations.

QUESTION 12. **The EY Overhead Assessment Report found that "with the exceptions of FY 2015 and FY 2016, the NRC mission support costs as a percentage of total outlays have increased year-over-year for the last decade." To roll back this decade-long increase in corporate support costs, the NRC must do far more than simply reclassify some office and Corporate Support resources into other budget categories.**

a. What specific actions is the NRC proposing to take in FY 2017 to reduce the NRC's rate of corporate support spending and bring it in line with peer agencies (which EY found only spend between 20 percent and 32 percent of their total budgets on mission support)?

ANSWER.

a. The NRC's definition of "overhead" has changed over time, based on changing perceptions of the concept of support activities. Starting with the FY 2011 budget, the NRC began characterizing "overhead" as Corporate Support and Office Support. Corporate Support included acquisitions, administrative services, financial management, human resources management, information management, information technology international activities, outreach, policy support and associated training and travel. Office Support included top-level management, administrative assistants and other office support staff who work in the program mission areas. To align overhead and support functions with best practices of the peer agencies identified, EY recommended that the NRC eliminate Office Support, eliminate the International Activities product line from the Corporate Support business line, and evaluate other selected budget activities for removal from the Corporate Support business line. Acting on EY's recommendations, as well as additional reductions to the Corporate Support business line

brings the NRC back to corporate resources equal to 31 percent of the agency's FY 2016 budget. This figure is in line with the 32 percent identified for "Peer Agency C" in the EY report, as well as the agency average for the NRC since FY 1995.

In addition to the realignment of support function resources in the NRC budget with best practices of other similarly situated Federal agencies, significant reductions to corporate support resources—both FTEs and contract dollars—will be realized in FY 2017 and beyond. Major areas of expected savings are outlined below.

Project Aim

- Ongoing Project Aim efficiency initiatives will further reduce corporate costs in FY 2017 and beyond. In a March 24, 2016, memorandum, "Resources Allocated to the Corporate Support Business Line", the Executive Director for Operations and Chief Financial Officer instructed the directors of certain corporate offices to work as a group to perform the following:

  (1) Analyze corporate support workload and resources in light of the recent agency re-baselining and declining programmatic workloads and staffing levels.

  (2) Recommend further reductions to corporate FTE in FY 2018 and beyond.

- The working group presented recommendations for efficiencies which would provide an overall reduction of approximately 14 percent decrease from FY 2017 in corporate support resources. These reductions, if approved by the Commission, will be reflected in the agency's FY 2018 and FY 2019 budget requests.

Real Property

Over the next several fiscal years, the agency plans to reduce its real estate footprint and associated fixed costs in both the regions and at headquarters.

- Reduce Office Space at Headquarters. Reducing office space in Three White Flint North (3WFN) will achieve significant rent savings each year. The agency will accomplish this by relinquishing two floors in 3WFN: one floor by the end of FY 2018 and one floor by the end of FY 2019. This activity would involve moving approximately 300 staff members into the two original headquarters buildings and paying upfront costs for furniture (in FY 2018 and FY 2019), as well as moving and related costs. Progress in this area is contingent upon the availability of funding to renovate headquarters space so as to achieve higher density within the existing footprint, creating sufficient office space to absorb the staff moving from 3WFN. Initial savings would be realized starting in FY 2019 and are contingent on the U.S. General Services Administration (GSA) securing another Federal tenant to backfill the 3WFN space.
- Reduce Office Space in the Regions. The agency will achieve significant rent savings each year through the end of the agency's leases on Region II and Region III current office spaces. When seeking new leases for these regions, the NRC will be pursuing smaller office spaces for these two regions based on reductions planned for FY 2018 through FY 2020. Progress in this area is contingent upon the availability of funding for any needed construction, security, clean up, and staff move costs. Initial savings would be realized starting in FY 2018 for Region III and FY 2019 for Region II. The savings are contingent on GSA timely securing another Federal tenant to backfill the Region II office space.

Information Technology

In FY 2016 and FY 2017, the agency plans to adopt new acquisition strategies for corporate support services to reduce costs for ongoing support. Examples include new acquisition strategies for major IT cost categories:

- IT Infrastructure Support. The NRC is re-competing the agency's enterprise IT infrastructure support contract. Over the long term, the agency expects to realize a 10 to 15 percent drop in its contract expenses resulting from this new acquisition strategy.

- Multi-Functional Devices and Managed Print Services. The NRC is moving to a new acquisition approach that will reduce the total cost for the agency's existing printers, scanners and copiers.

QUESTION 13. **The Commission testimony states:**

"the NRC has taken a hard look at the proposed budget, and is proposing reductions in both full-time equivalents (FTE) and contract support dollars that represent real savings. As we continue our work through the Project Aim initiative, we anticipate additional savings and efficiencies to come."

a. Given that some of the cost savings should be achieved in 2016 – particularly given the FTE reductions from early out/buy out authority exercised early in FY 2016 – please provide an updated estimate of any carry-over funds that NRC anticipates at the end of FY 2016.

b. Considering that the 2016 fee recovery rule is not yet final, please describe the feasibility of adjusting the fee recovery amount to prevent over-collection.

c. If some of the 2016 cost savings will be obligated for other purposes, please provide a detailed description of what the funds

will be obligated to and the fiscal year in which the obligated funds are expected to be expended, including specific amounts.

d. The NRC FY 2017 budget request is for 3,537 FTE yet Commissioner Baran testified that the NRC expects to drop to 3,344 FTE by the end of 2017. That indicates there will be savings that are not reflected in the FY 2017 budget. Please provide an estimate of the anticipated additional savings and efficiencies resulting from the Project Aim recommendations and workforce planning including stringent hiring controls.

e. I understand the NRC is pursuing additional early out/buy out authority in its efforts to right-size the agency. Please provide the number of FTE reduction, the estimated cost savings, any hiring restrictions applicable to the vacated positions, and the timeframe for employees that qualify and accept an early out/buy out to conclude their NRC service.

f. Congress should account for these savings and approve a smaller NRC budget, or the NRC will be forced to collect more fees than necessary and end the year with unspent "carry-over" funds, correct?

ANSWER:

a. The NRC does not anticipate savings to the FY 2016 budget as a result of the early out/buyout offers. Early out/buyouts do not typically achieve savings in the current year due to payouts of incentives and payment of lump sum benefits for annual leave balances. The last carryover estimate, developed at the beginning of the fiscal year and based on historical

estimates, was $25 million for all carryover funds. As of the end of April, the agency had $23 million in carryover funding ($18 million of fee-based funding). The NRC is finalizing its FY 2016 midyear resource review of our financial status. Currently, the agency is able to absorb early out/buy out costs in FY 2016. The agency doesn't expect to exceed $25 million in fee-based unobligated carryover funds; however, this amount can be better estimated around the end of July 2016.

b. In accordance with the Independent Offices Appropriation Act of 1952 (IOAA) and Omnibus Budget Reconciliation Act of 1990 (OBRA-90), the NRC is required to collect approximately 90 percent of its budget authority (less certain excluded items) through fees. To develop the final fee rule, the NRC computes the estimated 10 CFR Part 170 (fee for service) collection by adding three quarters of actual billing receipts for the current year and an estimate of the collection activity for the last quarter. The NRC then adjusts the total 10 CFR Part 171 (annual fee) collection so that total projected Part 170 and 171 collections equal approximately 90 percent of the NRC's budget authority, less non-fee-based amounts such as waste incidental to reprocessing and generic homeland security. If the NRC collects fees that exceed 90 percent (due to unanticipated collections after the final rule was developed), the NRC would reduce the following fiscal year's fee recovery by an equivalent amount via a credit applied to all licensees, relative to budgetary resources attributed to each fee class.

c. At this time, the NRC does not anticipate savings to the FY 2016 budget as a result of the early out/buyout offers. If there are overall salaries and benefits (S&B) cost savings in FY 2016 as a result of the early out/buyout, any excess S&B funds would be used in FY 2016 to fund priority contract support needs, within the existing control points, if approved by the Commission. However, currently, there is no specific plan for reallocating excess S&B funding. Any unanticipated FY 2016 contract support savings realized as a result of Project Aim efficiencies would be reallocated within existing control points.

d. At the time of the issuance of the FY 2017 CBJ, partial savings were included in the FY 2017 budget totaling $9.9 million and 28 FTE. Since the CBJ was submitted, the Commission approved nearly all of the Project Aim recommendations, and an additional $29.4 million and 120 FTE will be achieved in the FY 2017 budget. To achieve these FTE reductions, the NRC implemented austere hiring measures in FY 2016, used early out/buyout authority to accelerate attrition and, when possible, used reassignments and internal training to address workforce needs.

e. The NRC's early out/buy out authority identified 168 positions that could be shed, representing approximately $162,000 in annual savings per FTE. The early out/buy out authority does not expire until June 30, 2018, which allows the agency to offer more than one opportunity to apply. In the initial window, employees who qualify and accept an early out/buyout will separate from the NRC no later than September 30, 2016. Additional windows to apply have yet to be determined. The agency has limited its external hiring to critical positions only, and will continue to do so.

f. The agency's FY 2016 budget reflects FTE and contract support reductions taken to recognize Project Aim efficiencies already implemented. The NRC does not anticipate additional savings to the FY 2016 budget as a result of the early out/buyout offers as indicated in 13a above. Early outs and buyouts implemented by the end of the fiscal year will require the agency to pay out incentive awards to the separating employees. Depending on the date of separation, the agency may also have to use some FY 2016 funding to make lump sum payments for annual leave owed to those employees. The agency expects any potential FY 2016 salaries and benefits savings from lower FTE utilization to be offset by these costs.

FY 2017 savings from Project Aim efficiencies that were approved by the Commission are reflected in the Senate-passed FY 2017 Energy and Water Appropriations bill.

QUESTION 14. **Please provide the NRC's current number of FTEs.**

ANSWER.

As of June 1, 2016, the NRC has 3,442 FTEs, not including the Office of the Inspector General.

QUESTION 15. **In light of the continuing FTE reductions, what actions is the NRC taking to right-size its office space footprint? Please provide dates when the actions will be completed and an estimate of the savings that will be achieved.**

ANSWER.

Since 2012, the NRC has been reducing its office space and corresponding costs at its headquarters location in Rockville, MD. To date, the NRC has consolidated its headquarters to three buildings and released approximately 365,000 square feet of usable office space, reducing headquarters from approximately 1,074,000 to 709,000 usable square feet. This included the release of four satellite offices throughout the Rockville/Bethesda area.

As we continue to reduce staffing levels, the NRC plans to continue to work with GSA to release additional floors in the 3WFN headquarters building. The NRC's 15-year occupancy agreement with GSA is "non–cancelable." Therefore, the NRC will be responsible for the full lease costs for the building until such time as the space is backfilled. The NRC intends to release one floor by the end of FY 2018 and an additional floor by the end of FY 2019. This would potentially save approximately $1 million per floor annually, assuming GSA can backfill the space with another Federal tenant.

QUESTION 16. **As part of Project Aim, has the agency considered the feasibility of reducing the number of regional offices from four to three? If not, why not? If so, please indicate the estimate of the savings that could be achieved and the time frame for realizing those savings.**

ANSWER.

Under Project Aim, the NRC considered the structure of the regions, both in terms of the housing footprint and workload balance. The agency did not estimate a cost savings specifically focused on reducing the number of regional offices from four to three. At this time, the agency believes the current number and locations of the regional offices is appropriate to accomplish the NRC's mission.

QUESTION 17. **Agency staff provided the Commission with recommended actions to close out the remaining Fukushima Tier 2 and 3 issues by the end of 2016.**

a. Does the agency remain on target to meet this schedule?

b. If so, what impact will the close out of the Tier 2 and 3 issues have on the FY 2017 Budget Request?

ANSWER.

a. Yes. The staff recently submitted SECY-16-0041, "Closure of Fukushima Tier 3 Recommendations Related to Containment Vents, Hydrogen Control, and Enhanced Instrumentation," to the Commission closing out several recommendations as part of the schedule and plans laid out in SECY-15-0137, "Proposed Plans for Resolving Open Fukushima

Tier 2 and 3 Recommendations." Furthermore, the staff remains on track to complete its evaluation of the remaining three Tier 2 and 3 recommendations by the end of 2016.

b. The agency is currently developing an estimate of the potential impact.

QUESTION 18. **For each of the last five years, please list the amount of resources the NRC has spent of its post-Fukushima effort. Please provide a breakdown of how fees were recovered from individual licensees/applicants/certificate holders through 10 CFR Part 170 fees, or from categories of licenses through 10 CFR Part 171 fees.**

ANSWER.

The following is a breakdown for Fukushima-related budget and costs recovered under 10 CFR Part 170 versus those recovered under 10 CFR Part 171. The majority of the activities from the Fukushima lessons-learned project were associated with improving the safety of the reactor fleet; therefore, the budgeted costs were recovered under annual fees:

Fukushima Related Resources (Dollars in Thousands)

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Budgeted Resources*:	15,260	37,558	48,650	54,410	52,102
Recovered through:					
10 CFR Part 170 fees	113	13,553	18,786	22,302	13,824
10 CFR Part 171 fees	15,147	24,005	29,864	32,108	38,278

*Budgeted resources were calculated using a full costed rate for fee recovery purposes per the fee rule.

Question 19. **Following the March 22 terrorist bombings in Brussels, Belgium, there were reports that the suspects had also considered attacking nuclear facilities.**

a. Has the NRC reviewed the incident?

b. Does the NRC's current security program, including its insider threat mitigation requirements, adequately cover the potential threats inherent in the incident?

ANSWER.

a. Yes, the NRC staff reviewed information available on the incident. Additionally, the NRC has contacted intelligence agencies and reviewed available documents regarding this event and the ensuing investigation.

b. Yes, the current security program adequately covers those potential threats.

QUESTION 20. **You testified about the Commission's review of a proposal to establish a single unified approach to track NRC rulemaking activities so the public and stakeholders have real-time access to current information. Please describe the scope and status of that process, and the anticipated timeframe for completion.**

ANSWER.

In a memorandum dated February 11, 2016, the NRC Chairman directed the staff to provide a notation vote paper to the Commission recommending improvements in the NRC's tracking and

communication of its rulemaking activities. The staff submitted its recommendations on April 4, 2016 (SECY-16-0042, "Recommended Improvements for Rulemaking Tracking and Reporting"). In a May 19, 2016 Staff Requirements Memorandum, the Commission directed the staff to:

- Develop a centralized rulemaking activity-tracking tool.
- Issue an annual rulemaking report to replace four long-standing reports without affecting those reports required by law or Executive order.
- Redesign the rulemaking pages on the NRC's public Web site to provide information that is closer to "real time."
- Issue a glossary for rulemaking terminology.
- Implement conforming changes to the office procedures and management directives.

The staff plans to fully implement the Commission's direction by April 2017.

QUESTION 21. **When will the NRC staff implement the Commission's decision on early Commission involvement in the rulemaking process?**

ANSWER.

The NRC staff is implementing the Commission's decision on early Commission involvement in the rulemaking process. The agency issued interim guidance on March 31, 2016, and by September 2016, staff will complete an update to Management Directive 6.3, "The Rulemaking Process," that will reflect the Commission's decision and staff implementation. The Commission approved institution of a requirement for a streamlined rulemaking plan in the form of a notation vote paper that would request Commission approval to initiate all rulemakings not already

explicitly delegated to the staff as a staff-delegated rulemaking. The staff has already begun submitting these rulemaking plans to the Commission

QUESTION 22. **Please describe the Commission's current efforts to instill more regulatory discipline into the RAI process, including but not limited to any business process improvements, establishment of metrics to measure internal performance consistent with established procedural requirements, and increased management oversight of the RAI process.**

ANSWER.

The Commission has recently taken action to instill more regulatory discipline and efficiency into the RAI process to help ensure that timeliness performance metrics are met.

On June 30, 2014, the Commission issued an SRM directing the staff to consider, in the context of Project Aim, ways to reduce the licensing action backlog and increase timeliness. In response to the SRM, NRC staff launched several initiatives and took other actions to focus on how it can leverage or revise existing licensing processes to enhance efficiency, effectiveness, and predictability as a regulator, while maintaining its strong safety focus. Through these initiatives, staff analyzed what caused the backlog, and provided recommendations to NRC management regarding enhancements to the licensing review process. In part as a result of these recommendations, NRC management issued interim guidance to the staff in January 2015 and updated interim guidance in April 2016 that provides expectations to help ensure consistency of the licensing review process, sound decisionmaking, and adherence to

scheduling guidelines. Some of the key items in the interim guidance that will add discipline to the RAI process include the following:

- NRC 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 project manager, the technical staff are 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.
- NRC management will maintain a focus on RAIs. Before sending a second (and any subsequent) round of RAIs in a specific technical area, NRC management will 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, may be more effective and efficient.
- NRC project managers will track licensee timeliness and adherence to RAI response schedules. Any delays in licensee responses will be brought to NRC management attention. Trends in RAI response times will be evaluated based on the average timeliness to assess the agency’s processes and metrics.

In addition to the guidance, NRC management is holding periodic meetings to discuss open licensing actions, as well as to develop alignment on the best approaches to completing those actions and monitor licensing metrics. Other actions taken include obtaining additional resources, in the form of staff and contract support, to focus on stabilizing and recovering the licensing backlog.

QUESTION 23. **The Commission has recently revised its Internal Commission Procedures (dated March 24, 2016). Please provide a "redline/strike-out" version showing all tracked changes made relative to the previous version.**

ANSWER.

This document was provided to the Committee on May 6, 2016.

The Honorable David Vitter

QUESTION 24. **How does the NRC's standard hourly charge for service compare to other engineering firms?**

ANSWER.

The NRC must comply with the Omnibus Budget Reconciliation Act of 1990 (OBRA-90) and the Independent Offices Appropriation Act of 1952 (IOAA) when setting user fees and annual fees, while private engineering firms do not. NRC, as a regulatory agency, has a very different role with respect to licensees than engineering firms have with their clients. Under OBRA-90 and the IOAA, the NRC must recover its costs of providing specific regulatory benefits to identifiable applicants and licensees. In so doing, the NRC establishes an hourly rate for its regulatory work. Consistent with the IOAA, the NRC determines its hourly rate by dividing the sum of recoverable budgeted resources (i.e., total budget authority less non-fee items) by mission-direct FTE hours for the following:

1) mission-direct program salaries and benefits;

2) mission-indirect program support; and

3) agency support—which includes corporate support, office support (in fiscal year FY) 2015, but not future fiscal years), and the Inspector General.

QUESTION 25. **What are the estimated savings of consolidating NRC headquarters to 3 buildings?**

ANSWER.

In fiscal year (FY) 2015, the NRC completed the consolidation of its headquarters to three buildings in Rockville, MD that began in 2012. While the consolidation resulted in annual

decreases, including $800,000 for shuttle services, $2.1 million for guard services, and $1.2 million for the rent and utilities associated with the interim buildings, the reductions were essentially offset with higher rent costs in Three White Flint North (3WFN). Due to contractual obligations, the NRC spent an additional $1.9 million to subsidize the rent and utilities for the space occupied by the U.S. Food and Drug Administration in 3WFN, and the agency experienced an increase in FY 2014 for guard services as a result of the U.S. Department of Homeland Security, Federal Protective Service rescinding the delegated authority for the NRC to contract its own guard services. Additional information regarding the cost for providing guard services is provided in response to question 50.

While the consolidation has not yet yielded any net savings, as staffing levels continue to decline, the NRC will continue to work with GSA to release additional floors in the 3WFN headquarters building. The NRC's 15-year occupancy agreement with GSA is "non–cancelable" and the NRC is responsible for the full lease costs for the building until the space is backfilled. The NRC plans to release one floor by the end of FY 2018 and an additional floor by the end of FY 2019, resulting in a potential annual savings of $1 million per floor, provided that GSA can backfill the space with another tenant.

QUESTION 26. **What is the current projected carryover balance from FY 2016, and where did it come from?**

ANSWER.

As of the end of April, the NRC had $23 million in carryover funding ($18 million of fee-based funding) from the FY 2015 budget. The staff will have an updated estimate of projected carryover around the end of July once the agency's midyear resource review is finalized. The projected carryover balance will come from estimates of de-obligations of prior year fee-based

appropriations during this fiscal year, as well as delayed use of or over-estimated contractual support estimates for current year appropriated funds.

QUESTION 27. **Chairman Burns stated in a previous hearing that Project Aim identified $41.1 million in potential savings for FY 2017 budget. However, the Commission's FY 2017 request is a reduction of only $19.8 million from FY 2016, $15 million of which is from elimination of the integrated university program. Why does the 2017 request not incorporate additional aspects of Project AIM's identified improvements?**

ANSWER.

Project AIM identified $41.1 million in potential savings for FY 2017, of which $9.9 million were included in the FY 2017 budget request. The remaining items identified via Project Aim were not included in the budget request since they had not been or approved by the Commission.

Now that nearly all of the efficiencies were approved by the Commission on April 13, 2016, additional savings of $29.4 million can be achieved. With these reductions, the NRC could operate at a level of $939.9 million and 3,342 FTE in FY 2017, excluding the Office of the Inspector General and reimbursable FTE.

QUESTION 28. **What actions are currently being taken to develop licensing for non-light water reactors?**

ANSWER.

The NRC is developing a vision and strategy document that outlines the agency's plans to achieve readiness for effective and efficient review of future non light-water (non LWR) reactor applications. It contains three key strategic objectives: enhance technical readiness, optimize regulatory readiness, and optimize communication. The document addresses activities that need to be undertaken in three timeframes: near term (0–5 years), mid-term (5–10 years), and long-term (beyond 10 years). The NRC will develop specific implementation action plans by early calendar year (CY) 2017. The vision and strategy document has been shared with U.S. Department of Energy (DOE) staff for its comment, and we expect to seek broader stakeholder comment soon.

Key near-term strategies include the following:

- Acquiring or developing sufficient knowledge, technical skills, and capacity to perform non-LWR regulatory reviews.
- Acquiring or developing sufficient computer codes and tools to perform non-LWR regulatory reviews.
- Establishing a more flexible, risk-informed, performance-based non-LWR regulatory review process within the bounds of existing regulations.

The goal is for the staff's review efforts to be commensurate with the safety performance of the non-LWR design being considered. Of particular interest to some stakeholders is the development of both a conceptual design assessment process and a staged review process. Outreach activities will particularly focus on vetting the proposal for these processes over the next few months.

Within the limited resources in the current budget, the NRC has worked with DOE in developing design criteria specific to non-LWR technologies. The document providing the criteria was

made available for informal public comment in April 2016, with comments requested by June 2016. These informal comments will provide input to the NRC as it prepares a draft regulatory guide to be published for formal comment. The agency currently expects to issue this draft regulatory guide by the end of CY 2016.

QUESTION 29. **How much funding is currently being spent on non-light water reactors and SMRs, respectively?**

ANSWER.

In FY 2016, the NRC budgeted approximately $0.3 million for non-light-water reactors and approximately $6.5 million for small modular reactors. These resources do not include an allocation of agency overhead.

QUESTION 30. **How will the $5 million request for advanced reactors licensing be distributed among NRC programs?**

ANSWER.

In addition to the activities outlined in Question 28, the NRC is developing a vision and strategy for addressing non-light-water reactors (non-LWRs), leading to the development of specific implementation actions plans that will include schedule and budgetary needs for each plan. The agency will develop those plans by early CY 2017, with the near-term plans developed by the end of September 2016. The $5 million request, if enacted, will be allocated to several offices, consistent with the schedule and budget needs for the near-term actions

QUESTION 31. **What is the estimated total cost and necessary person-hours to develop an efficient non-light water reactor licensing process?**

ANSWER.

The NRC has emphasized it can license new non-LWR designs using the existing regulatory framework. Nevertheless, the Commission has also taken a number of steps to ensure its readiness for effective and efficient review of future non-LWR applications. To date, the NRC resources devoted to these efforts have been paced to be consistent with the industry's stated development, licensing, and deployment plans. The NRC has also been actively seeking public feedback to further inform the appropriate focus and timing of these initiatives. Accordingly, the NRC does not currently have a complete estimated total cost, including the necessary person-hours to develop the anticipated non–light-water reactor (non-LWR) licensing process. Those cost estimates and schedules are being developed as part of the vision and strategy implementation action plans. However, initial estimates suggest that $5 to $10 million will be necessary annually between now and 2025 to enhance the regulatory framework to support the effective and efficient review of the various non-LWR technologies.

QUESTION 32. **What activities is the NRC currently taking to examine interim consolidated waste storage?**

ANSWER.

The U.S. Nuclear Regulatory Commission's (NRC's) responsibility is to ensure that spent nuclear fuel is managed and stored safely and securely in either wet or dry storage located at reactor sites or away from reactor sites (e.g., interim consolidated waste storage). The NRC

recently completed an acceptance review of an application for an interim consolidated storage facility. This is not the first time a private entity has applied for a license to store nuclear waste. Under existing NRC regulations, the Commission issued a license to Private Fuel Storage in February 2006. The purpose of the acceptance review is to determine whether an application is acceptable for docketing under 10 CFR Part 72. In the case of the application mentioned above, the NRC informed the applicant that the application did not contain sufficient technical information and identified the information necessary for the NRC staff to continue the acceptance review. If this application is ultimately docketed, subsequently approved and a license is issued, the NRC will provide oversight and perform the appropriate inspections during the facility's construction and operation.

QUESTION 33. **Is the NRC currently continuing any activities to develop a permanent spent fuel storage solution?**

ANSWER.

Congress and the President set national policy for disposal of spent nuclear fuel. It is the NRC's responsibility, as an independent regulator, to review applications submitted for spent fuel storage, transportation, or disposal and determine whether the proposed operations meet the NRC's safety, security, and environmental protection requirements.

The Honorable John Barrasso

Question 34. **In the hearing, you committed to consider increasing the license duration for uranium recovery. Please describe the steps that will be taken in this process, including milestones for each step, and the timeframe for completing the process.**

ANSWER.

The staff anticipates the following steps and timelines in the process to consider increasing the license duration for uranium recovery (UR) licenses:

Current – Analyze the history of UR licensing duration history, as well as the durations of other, non-UR NRC licenses. Analyze applicable legal and policy considerations, Develop a list of pros and cons for changing the UR licensing duration, and develop options for changing the length of the licensing duration.

- December 2016 – Begin drafting notation vote SECY paper to present staff's analyses and recommendations for changing the UR licensing duration.
- March to July 2017 – Conduct internal staff review of and receive concurrence on draft notation vote SECY paper.
- September 2017 – Submit notation vote SECY paper to the Commission for review and vote.

If a change of policy is approved by the Commission, a *Federal Register* notice describing the policy change would be issued 60 days after receiving the Commission's decision.

The Honorable Michael Rounds

QUESTION 35. **Your testimony states that the FY 2017 budget represents a decrease of $19.8 million from FY 2016, $15 million of which is from elimination of the integrated university program. That leaves a decrease of $4.8 million and 90 FTE in the NRC's offices. NRC staff have indicated to Committee staff that each FTE reduction presents an average savings of $165,000. Hence, a reduction of 90 FTE should result in $14.8 million in savings.**

a. Please provide a detailed explanation of why the $14.8 million is not reflected in the NRC's budget request including a detailed list of how the money was spent.

ANSWER.

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

QUESTION 35(2). **Your written testimony states that Project Aim savings resulted in a reduction of $9.9 million in the FY 2017 budget. Given that the budget for the NRC program offices only decreased by $4.8 million, please describe the reason for this disparity including a detailed explanation of how the money was spent.**

ANSWER.

The cost savings were offset by an increase of $5 million for activities related to the development of regulatory infrastructure for advanced nuclear reactor technologies and a Government-wide pay raise in FY 2017. This resulted is a net reduction of $4.8 million.

QUESTION 36. **You testified that the NRC has identified an additional $30 million in savings. Please indicate when we will see those savings achieved.**

ANSWER.

These Commission-approved savings have been provided to the House and Senate Appropriations Committees' Energy and Water Subcommittees, and are currently reflected in the Senate-passed FY 2017 Energy and Water Appropriations bill.

QUESTION 37. **Please provide a current estimate of the carry-over funds NRC anticipates having at the end of FY 2016.**

ANSWER.

As of the end of April, the agency had $23 million in carryover funding ($18 million of fee-based funding). The NRC does not expect to exceed $25 million in fee-based unobligated carryover funds; however, the agency should have a better estimate of the total amount around the end of July 2016.

QUESTION 38. **Please describe the actions being taken to reduce the NRC's backlog in licensing action reviews and prevent its reoccurrence including any process improvements.**

ANSWER.

The NRC has made a concerted effort to reduce the backlog. This includes reallocating resources from lower priority work across the nuclear reactor safety program, expanding the use of contract support, and maintaining an aggressive focus on completing actions in the backlog. It also includes an enhanced focus on actions approaching 1 year in progress to ensure they are completed within established timeframes. In addition, the NRC undertook a number of initiatives to identify efficiencies within the operating reactor program that will enhance the licensing process and improve the timelines of reviews. As a result, NRC management issued interim guidance to the staff in January 2015 and updated interim guidance in April 2016 that provides expectations to help ensure consistency of the licensing review process, sound decisionmaking, and discipline of schedule. This guidance includes expectations regarding:

- Managing complex actions.
- Reviewing actions for acceptability.
- Adhering to the licensing processes.
- Increasing management attention during various steps in the licensing review.
- Increasing attention on the RAI process (see the response to Question 22 for additional information on the RAI process).

Lastly, with the Fukushima workload expected to level off and decrease heading into FY 2017, skill sets currently dedicated to Fukushima will be available to support other mission-related activities, as needed.

The backlog of licensing actions older than 12 months reached a peak of 112 in November 2014. The backlog has dropped to 20 as of April 2016. In addition, the current FY 2016 average for completing licensing actions in less than 1 year is now approximately 94 percent (i.e., an increase of approximately 6 percent from FY 2015)[3].

To prevent reoccurrence of a backlog, NRC management is continuously evaluating its processes to identify areas for improvement. In addition, as the timelines for licensing actions begin to return to normal, the NRC management team has been refocusing technical and project management capacity to support other mission-critical. Lastly, NRC management is looking to anticipate the resource needs in the upcoming years. Specifically, reactor licensees responded to a January 2016 generic communication seeking voluntary feedback regarding projected routine licensing actions and extended power uprates. The NRC management team is analyzing the data to assist with resource planning in critical skill-set areas, as well as with the prioritization of licensing activities.

[3] For most licensing actions, the NRR goal is to complete 95 percent of the reviews within 1 year and 100 percent in less than 2 years (some complex and routine reviews have longer and shorter goals, respectively).

The Honorable Bernard Sanders

QUESTION 39. **What is the process for reviewing and processing public comments in the current decommissioning rulemaking proceeding (docket NRC-2015-0070)? How are public comments weighed by the Commission against comments from the industry?**

ANSWER.

The NRC issued an advance notice of proposed rulemaking (ANPR) in docket NRC-2015-0070 on November 19, 2015. The public comment period ended on March 18, 2016. The NRC received 161 comment submissions from a wide variety of stakeholders. Consistent with the NRC process and as stated in the ANPR, the staff is not developing formal responses to the comments. However, the staff is reviewing and considering them in the development of its regulatory basis for the power reactor decommissioning rule. The regulatory basis will include a summary of the comments received on the ANPR. Subsequent stages of the NRC's rulemaking process provide opportunity for public comment and the development of formal response by the NRC.

The NRC treats all public comments equally, using the same comment assessment process for each submission. The staff reviews each public comment in a systematic way and evaluates the information provided against technical, legal, and policy information to determine an appropriate action and response.

QUESTION 40. **How does the NRC intend to educate the public about the existence and meaning of the ongoing decommissioning rulemaking process? What is the NRC's plan for community outreach for the remainder of this decommissioning rulemaking process?**

ANSWER.

The NRC staff will hold a public meeting for each rulemaking milestone. In addition, the staff will consider holding additional public meetings on technical topics for which there is significant stakeholder interest during the development of the proposed rule. Based on the feedback received on the proposed rule and draft regulatory guidance, the staff will also evaluate the need for additional public meetings during development of the final rule.

The NRC issued an ANPR regarding the decommissioning of nuclear power plants to engage formally with the public at a very early stage in the rulemaking process. While the ANPR is not a mandatory step in the agency's rulemaking process, the NRC determined that early interaction with stakeholders related to the power reactor decommissioning rulemaking would inform subsequent phases of the process (i.e., regulatory basis development, proposed rule development, and final rule development). In addition, the ANPR provided stakeholders with more detailed information regarding the scope and purpose of the rule early in the rulemaking process.

The staff intends to publish the draft regulatory basis for public comment in late CY 2016. After completion of the final regulatory basis, the staff will develop a proposed rule and draft regulatory guidance and issue them for public comment.

Although not required, the NRC staff intends to hold a public meeting for each of the potential decommissioning rulemaking milestones. In addition, the staff will consider holding a public meeting on technical topics for which there is significant stakeholder interest.

QUESTION 41. **Has the NRC planned any public field meetings to gather comments or testimony from communities where nuclear plants are decommissioning now, or will be soon? If not, why?**

ANSWER.

Given the opportunities for public comment during the decommissioning rulemaking process (see response to Question 40), the NRC does not plan to conduct public field meetings at this time. However, as the NRC continues the rulemaking process, the agency may consider conducting such meetings during the development of the proposed rule.

The NRC staff does conduct public outreach in the vicinity of decommissioning nuclear power plants to explain and field questions about the decommissioning process. When a power reactor licensee submits a post-shutdown decommissioning activities report (PSDAR), and subsequently when a licensee submits a license termination plan (LTP), NRC holds public meetings near the facility after each submittal. The public is also provided an opportunity to comment on both the PSDAR and the LTP. In addition, whenever a nuclear power plant licensee requests a license amendment, the public has the opportunity to comment and/or request a hearing on the amendment.

QUESTION 42. **Why has the NRC continued to waive its own regulations, especially those pertaining to the decommissioning trust fund, even though it is working to create new decommissioning rules?**

ANSWER.

The NRC may waive or grant exemptions from regulations related to the decommissioning trust fund if the exemption request meets the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) 50.12, "Specific Exemptions." That regulation allows the NRC to grant exemptions from the requirements of its regulations in 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," (including nuclear reactor decommissioning trust fund regulations). When deciding whether to grant an exemption request, the NRC must consider if the exemption meets the following criteria:

- Is authorized by law.
- Will not present an undue risk to the public health and safety.
- Is consistent with the common defense and security.
- Involves special circumstances such that the application of the regulation or compliance with the regulation is not necessary to achieve the underlying purpose of the regulation or that compliance with the regulation will result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted.

When considering an exemption to allow use of the decommissioning trust funds for purposes other than radiological decommissioning (e.g., spent fuel management), the NRC must determine that sufficient funds are (or will be) available for radiological decommissioning activities required by NRC regulation. If there is reasonable assurance that additional funds are available beyond what is necessary to support radiological decommissioning, the Commission may then grant an exemption.

The NRC recognizes that the current regulatory framework can be improved, and the current rulemaking process will consider how licensees can maintain safety and security at sites transitioning to decommissioning without having to rely on exemptions from NRC requirements.

QUESTION 43. **In light of the fact that spent nuclear fuel is kept on the Vermont Yankee site in Vernon in SAFSTOR, what justification is there for requiring less insurance, specifically at odds with the current NRC regulations?**

ANSWER.

Under Title 10 of the *Code of Federal Regulations* (10 CFR) § 140.11(a)(4), the level of nuclear liability insurance that is required for operating commercial nuclear reactors applies only to nuclear reactors that have a rated capacity of 100,000 electrical kilowatts or more. Because Vermont Yankee is permanently shut down and defueled, this plant does not have a rated capacity. Therefore, the level of insurance specified in NRC's current regulations at 10 CFR § 140.11(a)(4) is no longer required for Vermont Yankee.

The NRC determined that a reduction in offsite insurance from the levels specified in the current regulation is appropriate because there is no longer any possibility of a reactor accident due to Vermont Yankee being permanently shut down and defueled. In addition, the accident risks that do exist there as a result of the spent fuel being kept on site are much lower than those of an operating power reactor. The decay heat levels of the irradiated fuel, stored in the spent fuel pool (SFP), are sufficiently low that the only significant postulated event, a spent fuel zirconium fire, is very unlikely. Because the probability of a zirconium fire is related to the decay heat of the irradiated fuel stored in the SFP, this risk continues to decrease as a function of the time that Vermont Yankee has been permanently shut down. The licensee has evaluated the zirconium fire risk based on the decay heat as of April 15, 2016. That review determined that

the licensee would have more than 10 hours to mitigate the heat up of the spent fuel, if all modes of heat removal at the SFP (air or water) were lost. The NRC staff has determined that the licensee has sufficient capability and equipment positioned on site that can be quickly deployed and used to mitigate conceivable loss of spent fuel cooling conditions. Therefore, the need for offsite insurance at Vermont Yankee is lower than what is needed at an operating reactor. The same factors that support reduction of offsite insurance also support a reduction in onsite insurance.

The licensee for Vermont Yankee requested exemptions from both the offsite and onsite insurance limits because these regulations do not take into account the permanently shut down and defueled status of the plant. The exemption from onsite property damage insurance reduced insurance levels from $1.06 billion to $50 million, effective April 15, 2016. The exemption from offsite liability insurance reduced the required level of primary financial protection from $375 million to $100 million and permitted the licensee to withdraw from participation in the secondary financial protection pool after April 15, 2016.

The NRC granted the request for both exemptions on April 15, 2016, because there is no longer a credible risk of a large radiological release at the site. The NRC staff found that the licensee's request also met the regulatory criteria for granting exemptions because they are authorized by law, will not present an undue risk to public health or safety, and are consistent with the common defense and security. In the case of onsite property damage insurance, there also are special circumstances present, as listed in 10 CFR 50.12(a)(2). The NRC staff concluded that if the licensee was required to continue to maintain an onsite insurance level of $1.06 billion, the associated insurance premiums would be in excess of those necessary and commensurate with the radiological contamination risks posed by the site. .

QUESTION 44. **What justification is there for the NRC to approve withdrawals from Vermont Yankee's Decommissioning Trust Fund for spent fuel management when NRC's regulations expressly prohibit such use? (10 C.F.R. 50.75 at FN 1).**

ANSWER.

Under NRC regulations, some licensees choose to place funds in their decommissioning trusts to pay for costs associated with spent fuel management and site restoration. Vermont Yankee Nuclear Power Station sought regulatory exemptions to use decommissioning trust funds for spent fuel management expenditures when the amount of money in the trust is more than is needed for radiological decommissioning. Thus, the NRC has approved licensee exemption requests, consistent with the criteria set forth in Title 10 of the *Code of Federal Regulations* (10 CFR) 50.12, from decommissioning funding requirements in 10 CFR 50.75, "Reporting and Recordkeeping for Decommissioning Planning," and 10 CFR 50.82, "Termination of License," when a licensee has demonstrated that sufficient funds are (or will be) available beyond what is necessary to pay for radiological decommissioning.

In each instance in which the staff approved exemptions allowing withdrawals from decommissioning trust funds for spent fuel management, it acted under the authority delegated to it by the Commission. The staff found the exemptions were authorized by law, and the staff concluded the exemptions presented no undue risk to public health and safety and were consistent with the common defense and security.

The NRC is committed to ensuring radiological decommissioning of any site is completed within the time period and in a manner consistent with the NRC's regulations. Compliance with decommissioning funding assurance regulations for reactors that have permanently ceased operations is verified through a review of annual licensee-prepared decommissioning funding status reports. If, through this monitoring, the NRC staff determines there is no longer

reasonable assurance of sufficient funding to complete radiological decommissioning, the previously granted exemption may be revoked.

The Honorable Deb Fischer

QUESTION 45. **If a modification is necessary to bring a facility into compliance with existing NRC regulations, then it is exempt from analysis under the backfit rule according to the compliance exception. In the 1990's, industry raised concerns about the "...misuse of the compliance exception ..." In a recent letter to the NRC, the Nuclear Energy Institute raised similar concerns: "...allowing the staff to apply the compliance exception to impose new or different interpretations of unchanged regulatory requirements would defeat the fundamental purpose of the backfit rule."**

a. How does the Commission oversee the staff's use of the compliance exception?

b. Wouldn't a new interpretation of an existing regulation constitute a policy matter for the Commission?

c. What incentive does the staff have to notify the Commission is [sic] such a matter exists?

ANSWER.

a. The Commission oversees the staff's use of the compliance exception in generic matters that involve new policy, interpretive rules not delegated to the staff, and for other activities that require Commission review and approval before issuance. In addition to the backfit regulations found in the NRC regulations, the NRC staff must also follow Commission direction provided in various Statements of Considerations and Staff Requirements Memoranda that contain further clarification of the Commission's expectations with regard to the compliance exception and

backfit issues in general. The staff, on a case-by-case basis, may refer compliance backfit issues to the Commission for consultation even where the substantive matter is delegated to the staff for resolution. For many actions, like enforcement, the staff has delegated authority to resolve compliance backfit matters. The staff may inform the Commission of compliance backfit issues in staff-delegated actions through information briefing

b. Yes, unless the staff's new interpretation falls within the Commission-delegated licensing and regulatory oversight actions such as inspection and audits.

c. The staff is required by NRC's internal procedures to keep the Commission fully and currently informed. For specific matters described in "a", the staff is required to submit its recommendations to the Commission on compliance backfit or any other backfit issue for the Commission's review and approval. For other matters that are delegated to the staff for decisionmaking but are significant, the staff nonetheless provides advance notice to the Commission about the staff's intended resolution of backfit issues to ensure effective Commission oversight.

QUESTION 46. **For the last five years, please provide a list of instances where the NRC staff has exercised the compliance exception in the Backfit Rule. Please describe the issue under consideration, the justification for utilizing the exception, and the level of management responsible for making the decision.**

ANSWER.

During the last 5 years, there have been 5 instances in which the NRC staff has exercised the compliance exception in the Backfit Rule.

1. Byron Station, Units 1 and 2

"Byron Station, Units 1 and 2, Follow Up Inspection of an Unresolved Item; 05000454/2011010; 05000455/2011010," dated January 19, 2011,

a. The issue under consideration: In several correspondence with the NRC staff, the licensee stated that the worst single active failure assumed in its steam generator tube rupture event analysis involved a mechanical failure of a single steam generator power operated relief valve. This single failure was not the worst single failure but the licensee's assumption was not challenged and was subsequently approved by the agency.

b. The justification for using the exception: The NRC staff determined the assumption of a single steam generator power operated relief valve failure is not the most limiting single failure, in that a failure of electrical components would result in a failure of two steam generator power operated relief valves. The NRC staff concluded failures of electrical components should have been postulated to comply with 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," Appendix A, "General Design Criteria for Nuclear Power Plants."

c. The level of management responsible for making the decision: NRC Region III's Division Director for Reactor Safety.

2. Braidwood Station, Unit 2

"Braidwood Station, Units 1 and 2, Verification Inspection Related to Analysis of Steam Generator Tube Rupture Event Margin to Overfill; 05000456/2011009; 05000457/2011009," dated February 1, 2011,

a. The issue under consideration: The issue discussed for Byron Station also existed at Braidwood Station regarding the worst single active failure assumed in the steam generator tube rupture event analysis.

b. The justification for using the exception: The justification for using the exception is the same as discussed for Byron Station.

c. The level of management responsible for making the decision: NRC Region III's Division Director for Reactor Safety.

3. Edwin I. Hatch Nuclear Plant

"Edwin I. Hatch Nuclear Plant—NRC Component Design Bases Inspection—Inspection Report 05000321/2011009 and 05000366/2011009," dated May 25, 2011,

a. The issue under consideration: The degraded voltage protection system configuration for Hatch, Units 1 and 2, initially approved by the NRC in a 1995 safety evaluation report, is inadequate in that the degraded voltage relay settings do not automatically protect the Class 1E equipment (safety-related) during a degraded voltage condition.

b. The justification for using the exception: The NRC reassessed the degraded voltage protection system involving administrative controls to ensure adequate voltage to safety-related equipment during certain design-basis events. This system's configuration was recognized as a deviation from the guidance on degraded voltage protection provided in an NRC letter dated June 2, 1977, but was accepted by the NRC in a safety evaluation report dated February 23, 1995. After further review, the staff concluded the NRC was in error in accepting this approach. The staff's change in position on the acceptability of relying on manual operator action to demonstrate compliance with the applicable provisions of 10 CFR Part 50, Appendix A, General Design Criterion 17, "Electric Power Systems," and 10 CFR 50.55a(h)(2) constitutes backfitting as defined in 10 CFR 50.109(a)(1). The backfitting action was necessary for compliance with GDC-17 and was consistent with applicable guidance and practices in

effect at the time that the NRC staff erroneously approved the use of manual actions for controlling voltages at the Hatch plant.

c. The level of management responsible for making the decision: NRC Region II's Division Director for Reactor Safety.

4. Joseph M. Farley Nuclear Plant

"Joseph M. Farley Nuclear Plant—NRC Integrated Inspection Report 05000348/2012005 and 05000364/2012005," dated January 31, 2013,

a. The issue under consideration: The issue discussed for the Edwin I. Hatch Nuclear Plant regarding the degraded voltage protection system configuration also existed at Joseph M. Farley Nuclear Plant.

b. The justification for using the exception: The justification for using the exception is the same as discussed for the Edwin I. Hatch Nuclear Plant.

c. The level of management responsible for making the decision: NRC Region II's Branch Chief within the Division of Reactor Projects.

5. Byron Station, Units 1 and 2 and Braidwood Station, Units 1 and 2

"Braidwood Station, Units 1 and 2, and Byron Station, Unit Nos. 1 and 2—Backfit Imposition Regarding Compliance with 10 CFR 50.34(b), GDC 15, GDC 21, GDC 29, and Licensing Basis," dated October 9, 2015 The issue under consideration: Byron and Braidwood are not in compliance with the following:

- 10 CFR Part 50, Appendix A, GDC 15, "Reactor Coolant System Design;" GDC 21, "Protection System Reliability and Testability;" and GDC 29, "Protection against Anticipated Operational Occurrences"
- 10 CFR 50.34(b), "Final Safety Analysis Report"

- plant-specific design bases showing there will be no progression of Category II events into Category Ill events ("prohibition of progression of Condition II events")

Based on the NRC staff's review of the analyses contained in the Byron and Braidwood updated final safety analysis report (UFSAR), Chapters 15.5.1, "Inadvertent Operation of Emergency Core Cooling System during Power Operation (IOECCS);" 15.5.2, "Chemical and Volume Control System (CVCS) Malfunction that Increases Reactor Coolant Inventory (CVCS) Malfunction;" and 15.6.1, "Inadvertent Opening of a Pressurizer Safety or Relief Valve (IOPORV)," the NRC staff determined that the UFSAR predicts water relief through a valve that is not qualified for water relief.

b. The justification for using the exception: The NRC staff's conclusions with respect to noncompliance with GDCs 15, 21, and 29, 10 CFR 50.34(b), and UFSAR provisions with respect to prohibition of progression of Condition II events differ from a previous NRC position on the acceptability of the Byron and Braidwood design bases. The NRC staff's earlier position was documented in the safety evaluation for an increase in reactor power enclosed with a letter dated May 4, 2001. Therefore, the staff has determined that the current conclusion and position constitutes backfitting under 10 CFR 50.109(a)(1).

c. The level of management responsible for making the decision: Division Director for Operating Reactor Licensing in the Office of Nuclear Reactor Regulation.

QUESTION 47. **The NRC's Committee to Review Generic Requirements, or "CRGR" "… *ensures any generic backfits that are proposed for NRC-licensed power reactors, new reactors, and nuclear materials facilities…are***

appropriately justified on the bases of the backfit provisions…and the Commission's backfit policy." **In questions following the October 7th hearing, I asked if the CRGR had reviewed a list of issues including several that members of the Committee had written about. The NRC responded:** ***"These rules and documents were not reviewed by the CRGR because the proposing offices did not request CRGR review…."***

a. How can the CRGR perform a checks-and-balance role to ensure disciplined adherence to the backfit rule if the staff can simply decide *not* to ask for their review?

ANSWER.

a. In SECY-015-0129, "Commission Involvement in Early Stage of Rulemaking," dated October 19, 2015, the CRGR stated its plans to strengthen the existing expectation for Committee involvement in ensuring disciplined adherence to the Backfit Rule. In this effort, the CRGR developed criteria and implementing guidance to clarify at what stage and under what conditions the NRC staff is expected to request a CRGR review of proposed rulemaking packages. The NRC's Executive Director for Operations (EDO) has approved this guidance, which was provided to the Commission for information. Under this guidance the staff must consult with the CRGR on the need for formal Committee review of a rulemaking package when any one of the following conditions is met:

1. The staff indicated, in the rulemaking plan, that the rulemaking would not constitute backfitting. However, in developing the proposed rule, the staff identifies that a backfit is possible.

2. Qualitative factors were used to justify the rulemaking and the staff's subsequent regulatory analysis identifies significant costs incurred as a result of the proposed rulemaking.

3. There is substantial statistical uncertainty (in the statistical sense) in the quantitative benefit determinations in the backfit analysis.

4. The backfitting is justified or issue finality provisions in 10 CFR Part 52, "Licensing, Certifications, and Approvals for Nuclear Power Plants," are avoided based on reliance on the compliance exception.

5. As directed by the Executive Director for Operations (EDO) or when substantive concerns have been raised by stakeholders or NRC staff regarding the backfit or regulatory analysis.

The criteria and associated implementing guidance will be used by the CRGR, the agency's Office Directors, and the EDO, as appropriate, to decide whether to request CRGR review of a rulemaking package. The criteria and guidance has been provided to the CRGR and the program offices for immediate use, and will be included in a September 2016 update to Management Directive 6.3, "The Rulemaking Process". After a 1-year pilot period, each office involved in rulemaking will provide the CRGR with its assessment and lessons learned from applying the new criteria and guidance.

The CRGR will assess the lessons learned and feedback from the staff on use of the new guidance and criteria and inform the Commission regarding its determination if further process enhancements would be beneficial in its 2017 annual periodic assessment. Any changes to the scope of CRGR review and the associated staff responsibilities will be incorporated into the subsequent revision of the CRGR charter and the appropriate agency and office implementing procedures.

QUESTION 48. **In response to questions following the October 7th hearing, the NRC provided a copy of a previous Rulemaking Activity Plan indicating that it was marked "Official Use Only" and should not be released publicly. Correspondence from the Nuclear Energy Institute notes that it obtained a copy by filing a Freedom of Information Request. Given that rulemaking is such a fundamental activity, did the Commission decide to return to its previous practice of making rulemaking plans publicly available as part of its deliberation on "COMMISSION INVOLVEMENT IN EARLY STAGES OF RULEMAKING"?**

ANSWER.

Each rulemaking plan and the Commission's decision on each plan will be publicly available. However, consistent with budget practices under OMB Circular A11, resource information such as pre-decisional budget information will not be provided to the public.

The NRC staff compiles an annual, internal report for the Commission on all agency rulemaking activities. This report, called the "Rulemaking Activity Plan" (RAP), contains detailed schedule information on every planned rulemaking, a list of completed actions, and the status of petitions for rulemaking. The RAP also contains pre-decisional budget information and normally has not been made available to the public. In the response to the FOIA request by NEI, the pre-decisional budget information was redacted.

The Commission recently approved staff recommendations that will greatly improve the NRC's rulemaking tracking and reporting. The staff will make the information contained in the internal RAP - with the exception of pre-decisional resource data- available to the public on the NRC's Web site in 2017.

The Honorable Michael Crapo

QUESTION 49. **Please provide the total amount of fees collected under Part 171 for each of the last 10 years, adjusted for inflation.**

a. Please indicate whether the amount of annual fees collected in these years was adequate or inadequate to support the NRC's safety and security mission.

b. Please also include the estimate of 10 CFR Part 171 fees the NRC anticipates collecting under its FY 2017 budget.

c. Please describe the difference between the amount of 10 CFR Part 171 fees the NRC anticipates collecting in its FY 2017 budget and the 10 CFR Part 171 fees the NRC collected in 2015.

ANSWER.

The following is the breakdown of 10 CFR Part 171 fees collected over the last 10 years.

Fiscal Year	Total Collected Amount under Part 171	Adjusted for Inflation *	Cumulative Inflation Rate	Annual Inflation
2006	$436,229,388.53	$517,721,625.64	18.7%	2.5%
2007	$465,569,258.93	$537,240,725.28	15.4%	4.1%
2008	$470,520,056.77	$522,877,522.85	11.1%	0.1%
2009	$522,935,468.75	$583,200,395.22	11.5%	2.7%
2010	$545,596,423.58	$598,653,308.79	9.7%	1.5%
2011	$551,419,715.00	$586,528,936.43	6.4%	3.0%
2012	$559,262,445.00	$582,810,055.37	4.2%	1.7%
2013	$518,912,454.10	$532,954,634.03	2.7%	1.5%
2014	$590,541,343.30	$596,839,991.97	1.1%	0.8%
2015	$572,093,920.20	$577,510,319.69	.9%	0.7%
2016	$426,506,061.60**			1.1%

* US Inflation Calculator http://www.usinflationcalculator.com/inflation/current-inflation-rates/
** Total FY 2016 estimated collections under Part 171 is projected to be $550.7 million.

a. The amounts collected during the past 10 years under 10 CFR Part 171 and 10 CFR 170 were adequate to support the NRC's safety and security mission when combined with our net appropriation.

b. Based upon the FY 2017 Senate-proposed $939.9 million appropriation, the 10 CFR Part 171 estimated fees to be collected total $520.7 million.

c. The difference between the actual FY 2015 10 CFR Part 171 fees collected, $567.5 million, and the budget of $939.9 million proposed by the Senate for FY 2017 10 CFR Part 171 fees, $520.7 million, is a decrease of $46.8 million. The following chart (in millions) explains the calculation.

	Fiscal Year 2015 Final Fee Rule	**Fiscal Year 2017 Senate proposed Budget**	**Change**
Appropriation	$ 1,015.3	$ 939.9	$ (75.4)
Less: Non fee items	(20.3)	(25.4)	(5.1)
Fee base budget	995.0	914.5	(80.5)
Recovery percentage - 90%	895.5	823.0	(72.5)
Less: Part 171 billing adjustments	(6.8)	(6.8)	-
Total fee recovery	$ 888.7	$ 816.2	$ (72.5)
Part 170 fees***	$ 317.8	$ 295.5	$ (22.3)
Part 171 fees***	$ 567.5	$ 520.7	$ (46.8)

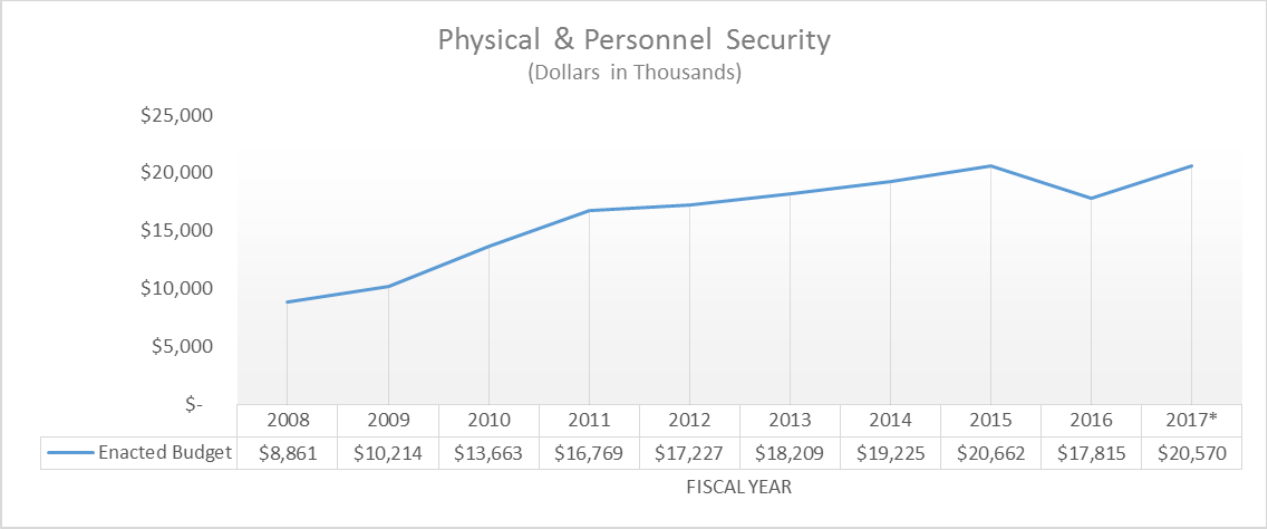
*** This row includes actual collections for FY 2015, which does not total 100% of the amount billed, and anticipated collections for FY 2017.

QUESTION 50. **Please provide the amounts spent on physical and personnel security for each of the last ten years.**

a. Please explain any annual increases for the amount spent on physical and personnel security over the past ten years in detail.

b. Please provide an estimate of the decrease in these costs as the NRC continues to reduce its office space in White Flint Building 3 and White Flint Building 2.

ANSWER.



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017*
Enacted Budget	$8,861	$10,214	$13,663	$16,769	$17,227	$18,209	$19,225	$20,662	$17,815	$20,570

* FY 2017 reflects the re-baselined budget.

a. Over the 10-year span—from FY 2008 to FY 2017—there have been several changes that have impacted physical security costs. As a result of the significant growth in personnel and contractors within the agency, NRC incurred additional costs to provide security guard services to multiple interim agency buildings at headquarters. By July 2015, the NRC no longer occupied any interim buildings at headquarters and thus incurred the related additional costs for security guard services. In addition, there were

office moves at Region 1, Region 2, and Region 4 that incurred costs to both establish and decommission security systems, update or replace security systems equipment, and provide increased guard services. In FY 2014, the U.S. Department of Homeland Security (DHS) Federal Protective Service rescinded the delegated authority for the NRC to contract its own security guard force and, as a result, the cost for security guard services increased. The agency is also required to pay an additional an 8 percent service fee to DHS. From FY 2008 to FY 2014, the following government-wide policy changes resulted in the increase of physical security costs:

- Federal Information Processing Standard 201-2, "Personal Identity Verification (PIV) of Federal Employees and Contractors" (2008, 2013)
- Interagency Security Committee Standards, "The Risk Management Process for Federal Facilities: An Interagency Security Committee Standard" (2010, 2013)
- Intelligence Community Standard Number 705-1 (ICD-705-1), "Physical and Technical Security Standards for Sensitive Compartmented Information Facilities" (2010)
- Title 32 of the *Code of Federal Regulations* Part 2001, Classified National Security Information (2010)

Increases in the budget for personnel security are largely attributed to the increase in the number of the agency personnel, as well as an increase in the number of contractors supporting agency activities. This resulted in an increase in investigations and case work for personnel security staff to determine employees' and contractors' initial eligibility and ongoing eligibility for security clearances and access authorizations. This also resulted in an increase in contracted services for administrative and processing support to keep up with the increased investigation workload. Over the last 10 years, the agency has also experienced an increase in the number of due process hearings as

a result of access authorizations and security clearances being denied. Additionally, the NRC has experienced increased costs associated with the drug testing program, as all NRC employees are currently required to be in the drug testing pool, as well as a number of contractors.

Lastly, Federal personnel security programs were going through the Security Reform Process. These reforms required agencies to follow the Suitability and Security Clearance Performance Accountability Council (PAC); have an end-to-end case management system; and, align security and suitability and fitness for duty processes and investigations. The following government-wide policy changes resulted in the increase of personnel security costs:

- Executive Order 13467, "Reforming Processes Related to Suitability for Government Employment, Fitness for Contractor Employees, and Eligibility for Access to Classified National Security Information" (2008)
- Executive Order 13488, "Granting Reciprocity on Excepted Service and Federal Contractor Employee Fitness and Reinvestigating Individuals in Positions of Public Trust" (2009)
- Executive Order 13526, "Classified National Security Information" (2009)
- Executive Order 13549, "Classified National Security Information Programs for State, Local, Tribal, and Private Sector Entities" (2010)
- Performance Accountability Council Memorandum, "Assignment of Functions Relating to Coverage of Contractor Employee Fitness in the Federal Investigative Standards" (2012)
- Federal Investigative Standards (2012)

b. In line with the NRC's continuing efforts to reduce the size of its housing footprint and decrease associated costs, the FY 2016 Enacted Budget reflects a reduction of

$370,000 in guard services for the Three White Flint North (3WFN) building, as the agency released four floors in May of 2015 to the Food and Drug Administration. As staffing levels continue to decline, the NRC will work with the U.S. General Services Administration to release additional floors in the 3WFN headquarters building and reduce guard services, as appropriate. The NRC's current plan is to release one floor by the end of FY 2018 and an additional floor by the end of FY 2019. At this time, there is no plan to reduce the housing footprint in the Two White Flint North building.

QUESTION 51. Please describe why the NRC believes the costs of the NRC's international cooperation and assistance should be recovered from domestic licensees.

ANSWER.

The NRC's international cooperation and assistance activities are a subset of its international activities, which include treaty implementation, nuclear nonproliferation, export-import licensing for nuclear materials and equipment, international safeguards support and assistance, international safety and security cooperation and assistance, and cooperative safety research. These activities are integral to the NRC's domestic public health and safety and common defense and security mission. These activities also support U.S. foreign policy objectives, as well as broader U.S. domestic and international safety and security initiatives.

The NRC does not charge licensees fees for costs associated with the agency's international assistance program. The international assistance program and activities help foreign regulatory counterparts develop or enhance their national regulatory infrastructures and programs, and strengthen their controls over radioactive sources. These resources are expended without

expecting the assistance will provide immediate benefits to an NRC research or regulatory program area. However, such assistance is viewed by the Commission, the U.S. Government, and the international community as invaluable for establishing multilateral coalitions, enhancing global nuclear safety and security, and strengthening regulatory programs for nuclear power plants, research reactors, and radioactive materials.

The resources that support international cooperation activities that benefit domestic licensees are recovered under annual fees. These activities include regulatory information exchanges, and policy and priority formulation activities providing direct input to the NRC regulation and oversight of its licensees and other benefits to NRC's licensees. The NRC does not charge licensees annual fees for costs associated with the agency's conventions and treaties program.

QUESTION 52. **Please provide a list of the NRC's current performance metrics.**

a. Please describe in detail any differences the NRC believes exist between the provisions in S. 2795 and the NRC's existing metrics.

b. Please also explain in detail how reporting requirements would limit the NRC's flexibility in managing schedule performance.

c. Please also explain whether the NRC believes that reporting requirements would prompt NRC staff to sacrifice safety in order to meet schedules.

ANSWER.

Attached are copies of the six 2016 NRC business line performance plans. These business line performance plans include official use only, sensitive internal information that is not publicly available. We respectfully ask that you honor these markings.

a. The NRC has performance metrics for the “requested activities of the Commission” as defined in S. 2795, except for “any other activity requested by a licensee or applicant” (Section 4(9)(B)).

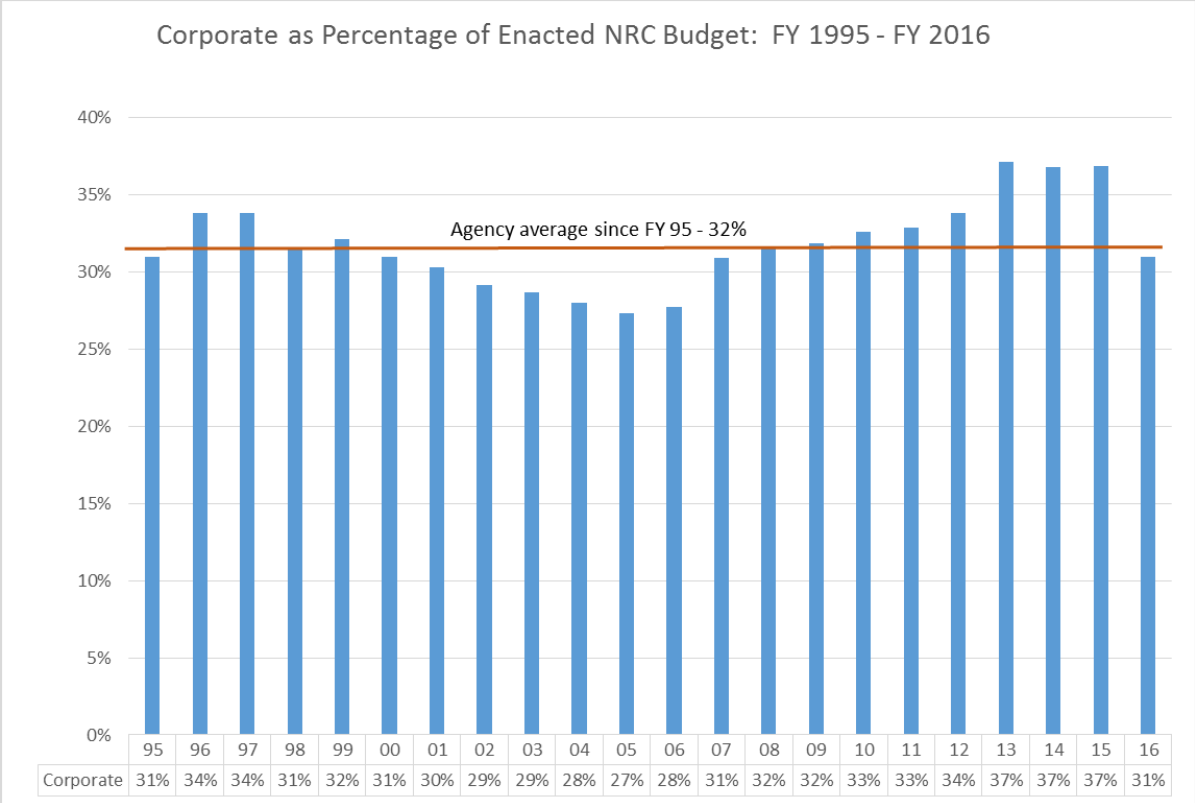
b. Schedules can be affected by applicant or licensee performance or by the actions of the NRC. In addition, emerging safety or security issues, changes in licensee plans, and other unplanned events can affect schedules. S.2795 could reduce flexibility by requiring set performance metrics and milestone schedules, and requiring reporting for certain delays, instead of allowing the metrics and schedules to be revised if there are emerging safety or security issues, changes in licensee plans, or other unplanned events.

Because schedules can change frequently regular reporting on such changes is of uncertain value. The reporting requirements would add to the agency’s management burden and workload and, ultimately, could affect the NRC’s flexibility to effectively and efficiently manage a dynamic process.

c. The NRC does not sacrifice safety to meet schedules, regardless of any reporting requirements.

QUESTION 53. **Considering that a corporate support spending rate of 28 percent was adequate in 2006, please explain in detail why returning to a 28 percent corporate spending rate within the next several years is not achievable.**

ANSWER.



	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Corporate	31%	34%	34%	31%	32%	31%	30%	29%	29%	28%	27%	28%	31%	32%	32%	33%	33%	34%	37%	37%	37%	31%

As the chart above indicates, the 28 percent corporate spending rate in FY 2006 was lower than the average level required to adequately support the agency, and was an artifact of unequal growth in corporate and program resources during a period of budget increases in the early part of the decade. Over this period, information technology (IT) became more important to all aspects of the NRC's work, driving increased costs. In FY 1995, corporate costs were equal to approximately 31 percent of the agency's budget. Five years later, in FY 2000, the agency's total budget had decreased by 10 percent, but the corporate percentage was the same (31 percent). Beginning in FY 2001 and continuing through FY 2006, as the agency's overall budget began to increase, program resources grew at twice the rate of corporate. As a result, corporate dropped as a percentage of the budget, reaching a low of 27 percent in FY 2005.

This was followed by two years of large corporate budget increases to provide the organizational infrastructure required to hire an additional 500 FTEs through FY 2009. The added resources allowed the agency to acquire and configure additional office space; manage increased personnel, facility, and cyber security requirements; cover growing telecommunication and IT seat management costs; and replace obsolete equipment and software. The corporate percentage rose to 28 percent in FY 2006, the first year that corporate growth outpaced program, and reached 31 percent in FY 2007, close to the agency's historical average of 32 percent over the past twenty years.

The period from FY 2008 to FY 2010 saw corporate increases outpace program budget growth by 10 percent. By FY 2010, corporate accounted for 33 percent of the overall agency budget, with the increase still largely driven by increased infrastructure costs related to rapid growth in agency staffing levels. Over the next three years—FY 2010 through FY 2013—the corporate percentage rose to 37 percent as the agency expanded the definition of corporate support to encompass a range of costs previously included in program budgets. The expanded definition of corporate support included $15 million for nuclear education grants first added to the agency's budget in FY 2008 (authorized as the Integrated University Program in FY 2009), as well as resources for international activities and the Regulatory Information Conference, both of which had previously been included in program budgets. The percentage held at 37 percent until FY 2016, when the corporate portion of the budget returned to the historical average of 32 percent. This was achieved in part by acting on EY's recommendations to realign resources in accordance with the more standard definition of corporate support used before FY 2011, and by instituting corporate budget reductions to reflect declining program staffing levels. The FY 2016 figure is in line with the 32 percent identified for "Peer Agency C" in the EY report, as well as the historical average for the NRC.

Historically, corporate resources equal to approximately 31 to 32 percent of the budget have been adequate to cover the agency's fixed infrastructure costs, fund normal service levels, and make selected strategic investments—e.g., increasing work space density and modernizing IT systems—necessary to achieve future corporate efficiencies. When the agency briefly operated with lower levels of corporate resources for a few years in the mid-2000s, service gaps and outmoded systems and facilities placed noticeable burdens on the programs, prompting a reinvestment in corporate support.

QUESTION 54. **On March 24, 2016, Mr. Victor McCree and Ms. Maureen Wylie wrote a tasking memo to staff citing SECY 16-0035 which recommended additional areas for future cost reductions including efficiencies in corporate support, and comparing to 2006. The memo stated: "The goal is to identify further efficiencies in light of future work load reductions." If returning the NRC to corporate support spending level comparable to 2006 might impair the NRC's safety and security mission, why was that year selected for comparison with regard to setting goals to find further efficiencies and workload reductions?**

ANSWER.

Although the initial concept for the effort included in SECY-16-0035 ("Additional Re-baselining Products"), identified FY 2006 as a comparison point, the tasking memorandum asked for a comparison to FY 2005 because the Executive Director for Operations and the Chief Financial Officer determined that FY 2005 was when significant growth actually began in the relevant corporate support offices. Starting with FY 2005 or FY 2006 ensured that the analysis covered

at least 10 years of budget data and a period of agency expansion that led to significant corporate support increases.

FY 2006 was the year in which the Energy Policy Act of 2005 was implemented. The Energy Policy Act had a significant effect on agency programs and resources and was a principal driver of budget increases over the ensuing years. Benchmarking to FY 2005, as requested in the tasking memo, allowed the agency to correlate corporate FTE increases with program expansion and associated growth in corporate support requirements, and thereby identify areas for reduction now that program staffing levels are declining. The intent of the tasking memorandum was not to direct a return to FY 2005 or FY 2006 levels, but rather the goal was to understand where changes (increases or decreases) were justified.

QUESTION 55. **Please provided a detailed description of all the ways the NRC captures overhead costs in its budget. Does "corporate support" leave out overhead costs that are captured in "office support" costs?**

ANSWER.

The NRC captures the following when calculating overhead costs:

- centrally managed overhead activities (e.g. budget formulation, execution of travel funds, and developmental training)
- agencywide infrastructure included in the five categories recognized by the Governmentwide CxO Council: 1) acquisition, 2) financial management, 3) information technology, 4) human capital, and 5) real property; and

- other general administrative costs under the Corporate Support business line (e.g., policy direction and executive leadership)

The FY 2017 Congressional Budget Justification (CBJ) identifies the following product lines under the Corporate Support business line: Acquisitions, Administrative Services (including real property), Financial Management, Human Resource Management, Information Management, Information Technology, Outreach, Policy Support (including the Commission budget), and Training.

Starting with the FY 2011 budget cycle and ending with the execution of the FY 2015 budget, the NRC used the Office Support business line to identify mission-specific support resources and activities. This included staff resources such as supervisors, administrative assistants, technical assistants, and other people within the office who assisted in the running and coordination of office activities. These office support costs were allocated across all business lines through an algorithm. As part of the EY Overhead Assessment performed in April 2015, EY recommended that the NRC adjust its budget structure to align overhead and office support functions with best practices of other similarly situated Federal agencies and general Federal practices. As such, the NRC eliminated the Office Support allocations by aligning the associated resources back to the specific business lines supported, without which the business lines would be unable to do their work. This is consistent with how the NRC budgeted these resources prior to the FY 2011 budget cycle. The Corporate Support business line now includes only resources specific to the product lines described in the FY17 CBJ. As a result of the direct assignment of these resources, there was a small net reduction to the Corporate Support business line and a small net increase in the programmatic business lines as these resources were realigned.

QUESTION 56. **Please provide a detailed accounting of the redefinition of corporate support costs.**

ANSWER.

The NRC's corporate support is comprised of centrally managed overhead activities and agencywide infrastructure included in standard definitions of general administrative overhead. This includes the following:

- corporate-level financial management;
- acquisitions;
- human resources;
- administrative services (including real property, personnel, and facility security);
- training infrastructure; information technology, and information management; outreach; and
- policy support (including the Commission budget).

Over time, resources had been added to the Corporate Support business line inconsistent with this definition of corporate support. As part of the EY Overhead Assessment performed in April 2015, EY recommended the NRC identify such costs within Corporate Support and align them to the program business lines. This realignment would ensure the Corporate Support category contained true corporate overhead (i.e., the 5 categories recognized by the Governmentwide CxO Council: acquisition, financial management, information technology, human capital, and real property), as well as other general administrative costs. In addition to the realignment, based on a more accurate accounting of corporate salaries and benefit (S&B) versus programmatic S&B, a split rate, which reflects that corporate staff is, on average, at

somewhat lower grade levels than technical staff, was applied to agency FTEs to more accurately estimate corporate S&B costs.

Informed by the EY assessment, as part of the FY 2017 budget cycle, the NRC realigned its budget structure to more appropriately categorize corporate support resources in the agency's budget. A total of $26.3 million was realigned in the FY 2016 enacted budget and the FY 2017 President's Budget. Of that amount, $24.6 million was moved out of Corporate Support, and realigned to program business lines. This realignment returned programmatic support resources back to where they were originally budgeted—i.e., to the business line supported—before the gradual expansion of the definition of corporate support. The current structure and the resources contained within the Corporate Support business line are now more consistent with standard definitions of agencywide overhead.

QUESTION 57. **Please provide precise, detailed information regarding all resources shifted from corporate support back into business lines since Fiscal Year 2011.**

a. Please explain what was moved back into the business units.

b. Please explain when each move occurred.

c. Please explain the cost associated with each move.

ANSWER.

On May 27, 2016, the NRC provided a table entitled, *Realignment Detail* (attached) that described the amount of resources moved from Corporate Support to the programmatic business lines as part of the budget realignment process for the FY 2017 budget cycle. The

information below contains details on the resources (FTE or contract support) that were included in this shift. FY 2016 appropriated resources are being executed per the realignment.

International Activities FTE (Total $9.6 million, including 23 FTE)

In response to the EY Overhead Assessment Report recommending that the International Activities product line be allocated directly to the appropriate program business lines, resources that were previously allocated to the International Activities product line under the Corporate Support business line were reallocated to the International Activities product lines in each of the appropriate program business lines. In addition, a small portion of the resources were reallocated to the Policy Support product line under the Corporate Support business line. These Policy Support resources support the NRC Chairman and Commissioners, as well as various activities that provide agencywide benefits, including processing passports and visas, arranging for foreign language interpreters and translation services, and funding an overseas position at the U.S. Mission to the International Atomic Energy Agency (IAEA) in Vienna, Austria.

The NRC is responsible for satisfying international treaty obligations, as well as statutory mandates, including export and import licensing. Each of the business lines benefits from bilateral and multilateral cooperation, sharing regulatory and operational experience, and supporting collaborative research relevant to NRC regulatory programs and those of its international counterparts. The NRC continuously assesses and, where relevant, incorporates international operating experience and research insights into the agency's domestic regulatory program. The NRC also provides assistance to regulatory authorities outside the United States bilaterally or through multilateral organizations, such as IAEA, to help establish or strengthen regulatory controls for the safe and secure use of nuclear energy and radioactive materials.

Below are detailed descriptions of the work associated with the resources reallocated to the programmatic business lines:

Licensing Exports and Imports (2 FTE—included in the $9.6 million total for International)

Staff support activities that involve developing, coordinating, and implementing policies related to export or import of radioactive materials and sources that fall under the NRC's jurisdiction (see Title 10 of the Code of Federal Regulations (10 CFR), Part 110, “Export and Import of Nuclear Equipment and Material,” Appendix P, “Category 1 and 2 Radioactive Material”).

International Technical Cooperation (11 FTE— included in the $9.6 million total for International)

Staff support the sharing of information, knowledge, and technical expertise with established international regulatory counterparts or technical support organizations for enhancing both the NRC's and its international counterparts' regulatory programs. These resources are expended with the expectation that the exchange will provide benefits to the Operating Reactors, New Reactors, Nuclear Materials Users, Spent Fuel Storage and Transportation, Fuel Facilities, and Decommissioning and Low-Level Waste program areas. .

International Assistance Program ($5.5 million and 7 FTE-– included in the $9.6 million total for International)

Staff support the provision of information, knowledge, and technical training to international regulatory counterparts or technical support organizations to assist them as they develop or enhance their national regulatory infrastructure and research programs. These resources are expended without the expectation that the exchange will provide immediate benefits to an NRC research or regulatory program area. This includes activities conducted both bilaterally and multilaterally (e.g., through IAEA or NEA) and could include support for hosting some foreign assignees if such support is not expected to provide immediate benefits to an NRC research or regulatory program area.

International Cooperation reallocated to the Policy Support product line under the Corporate Support business line ($0.3 million and 3 FTE -– included in the $9.6 million total for International)

Staff directly support Commissioner involvement or interest in sharing of information, knowledge, and technical expertise with established international regulatory counterparts for enhancing both the NRC's and international counterparts' regulatory programs. This includes supporting involvement in activities conducted both bilaterally and multilaterally (e.g., through IAEA or the NEA) and providing infrastructure and administrative support to the NRC's regulatory programs and international activities

The International Cooperation work associated with the resources reallocated to the Policy Support product line under the Corporate Support business line is described in detail in the following paragraph:

Policy Support ($1.6 million, including 10 FTE)

Includes the following (primarily by attorneys and one paralegal):

- advice to the Commission, including advice involving the Commission's internal procedures;
- advice to the Commission on significant adjudicatory decisions;
- advice to the Commission and staff, and coordination with other agencies, on matters involving legislation, proposed legislation, executive orders, and congressional oversight related to licensing;
- advice on issues involving licensing under the Atomic Energy Act, the Energy Reorganization Act, the Price-Anderson Act, and other federal statutes;

- advice on issues related to licensing under statutes that are generally applicable to Federal agencies, such as the Freedom of Information Act, the Privacy Act, the Paperwork Reduction Act, and the Congressional Review Act;
- advice on licensing issues related to preemption, discovery requests, Touhy requests, litigation holds, NRC investigations, records-retention policies, sensitive information, patent law, and copyright law; and
- advice to the Office of the Chief Financial Officer on fee issues related to licensing.

Outreach ($0.8 million, including 2 FTE)

This category includes resources associated with the Regulatory Information Conference, which is an NRC-led conference with approximately 3,000 international and domestic participants and representation from over 30 countries. It also has approximately 38 technical sessions and over 150 speakers. The conference is a forum for discussion on the regulation of nuclear power plants, nuclear safety research, and emerging safety and security issues that affect the domestic and international nuclear community. Two FTE are associated with planning and managing a conference of this scale. Contract resources are also used for the rental of space at a facility that can host a conference of this size and to provide logistical support.

Administrative Services, Information Management, and Information Technology ($2.7 million, including 2 FTE)

Includes resources associated with systems that directly support the agency's primary mission-essential function, as well as the mission-essential functions of the Reactor program. The 2 FTE are senior employees who work in the Operations Center.

Human Resource and Information Management realigned back to Corporate Support from Operating Reactors ($0.9 million and 6 FTE)

This represents workload and associated FTE supporting human resources and Freedom of Information Act (FOIA activities) identified in the Operating Reactors business line that were better represented as Corporate Support resources.

In addition to the realigned resources described above, the following shifts also occurred as part of the execution of FY 2016 appropriated resources.

Salaries and Benefits ($6.6M)

The NRC implemented a split rate for salaries and benefits (S&B) for Corporate Support and programmatic business line FTE on the basis that corporate staff is, on average, at somewhat lower grade levels than technical staff, which results in an S&B differential between the two groups.

Elimination of Office Support ($1.5 million)

This reflects net S&B reduction from elimination of Office Support and associated allocation methodology. Previously, office support FTE were allocated to programs based on an algorithm. Now, these FTE are budgeted in the specific programs they support.

As part of the FY 2014 budget cycle, with execution in FY 2013, $155,000 budgeted-for rent that was ultimately not needed was realigned from Corporate Support to Operating Reactors for travel. Additionally, 1.0 FTE from the Policy Support product line under the Corporate Support business line was realigned to the New Reactors business line for a Center of Excellence.

As part of the FY 2013 budget cycle, with execution in FY 2012, no resources were shifted from the Corporate Support business line to programmatic business lines. However, during this cycle, $6.9 million in resources related to workload for International Activities was realigned from the reactors business lines to the Policy Support product line under the Corporate Support business line.

No resources were shifted from the Corporate Support business line to programmatic business lines for FY 2011, FY 2012, or FY 2015.

QUESTION 58. **If corporate support costs have been cut, please provide very detailed descriptions of the resources cut, when the resources were cut, and how much was saved as a result of the reductions.**

a. Please clearly distinguish these reductions from the redefinitions of corporate support that amounted to cost-shifting into the business units.

ANSWER.

The table below shows the changes to the FY 2016 budget from the initial budget request contained in the FY 2016 CBJ to the final enacted budget to meet to NRC control points.

Corporate Support Budget
FY 2016 CBJ Request to Final Implementation

CORPORATE SUPPORT BY PRODUCT LINE	FY 2016 CBJ Request[2]		FY 2016 Final Budget[3]		Delta FY 16 (Final - CBJ)	
	Total $ (M)	FTE	Total $ (M)	FTE	Total $ (M)	FTE
Acquisitions	17.2	77.9	15.2	71.1	(2.0)	(6.8)
Administrative Services	113.0	107.9	99.8	104.1	(13.2)	(3.8)
Financial Mgmt.	30.3	110.5	28.4	106.7	(1.9)	(3.8)
Human Resource Mgmt.	20.4	59.8	19.2	57.8	(1.2)	(2.0)
Information Mgmt.	25.3	66.9	22.7	71.1	(2.6)	4.2
Information Technology	101.8	158.2	89.7	166.3	(12.1)	8.1
International Activities	11.1	29.2	-	-	(11.1)	(29.2)
Outreach	6.0	20.1	4.2	17.8	(1.8)	(2.3)
Policy Support	27.9	155.3	21.5	123.2	(6.4)	(32.1)
Training	5.4	16.2	4.3	14.0	(1.1)	(2.2)
Travel[1]	1.6	0.0	-	-	(1.6)	0.0
TOTAL	**$360.0**	**802.0**	**$305.0**	**732.0**	**($55.0)**	**(70.0)**

Numbers may not add due to rounding.

Notes:
[1] As part of the FY 2017 budget cycle, the Travel product line was allocated to the remaining product lines starting in FY 2016.
[2] Includes an allocated portion of the Office Support business line.
[3] As part of the FY 2017 budget cycle, the Office Support business line was eliminated per EY's recommendation. This is effective in FY 2016.

The table below provides a detailed explanation of reductions and adjustments to the Corporate Support business line, the relevant category (realignment vs. implementation plan), and associated amounts. A decrease in the Corporate Support business line of $18.1 million was taken by the agency. This amount included $11.5 million in reductions in corporate activities and a $6.6 million adjustment in salaries and benefits (S&B) to more accurately estimate corporate S&B costs.

To adhere to the corporate support control points enacted for FY 2016, an additional decrease of $10.8 million in resources were identified in corporate support, as shown below and detailed in Question 59, and realigned in program business lines. In addition, the realignment resulted in a shift of $24.6 million out of corporate support and into program business lines, plus an additional $1.5 million previously allocated Office Support resources was shifted out of the Corporate Support business line and budgeted in the specific programs consistent with the effort to eliminate the Office Support business line.

With the exception of the “Elimination of Office Support” section described below, all resource changes listed come solely from agency corporate offices.

Detail of Changes to the Corporate Support Business Line

Category	Product Line	Amount ($M)*	Description
Original Implementation Plan**	Acquisitions	(1.1)	Reduction of 1 FTE from the Business Advisory Center.
	Administrative Services	(5.6)	Reduction of 1 FTE for graphics. Reduction of 1 FTE for the supply room. Reduction of 1 FTE for the Space Design Branch. Reduction of $3.9M in contract dollars for rent, headquarters toner supplies, guard services, general office supplies, interior upkeep, and bulk subscriptions. 1 FTE reduction for Associate Director for Space Consolidation.
	Financial Management	(1.5)	1 FTE support staff reduction.
	Human Resource Management	(0.8)	Reduction of $0.2M in contract dollars for the reasonable accommodation program and the agency awards ceremony.
	Information Management	(1.5)	Reduction of 1 FTE for the Technical Library. Reduction of $1.2M in contract dollars for the Document Processing Center, licenses and support agreements for FOIAXpress and RedactXpress, and the Public Document Room and Technical Library.
	Information Technology	(4.0)	Reduction of 1 FTE for support for IT services. Reduction of $1.5M in contract dollars for local voice/data services and support, as well as wireless communication services. 1 FTE reduction for Director of Integration Strategies.
	International Activities	(0.5)	S&B adjustment.
	Outreach	(0.6)	Reduction of $0.4M in contract dollars for the Minority Serving Institutions Grant Program.
	Policy Support	(1.9)	Reduction of $2.0M for the Commission, as directed in the FY 2016 appropriation. Reduction of a total of 1 FTE for Congressional Affairs outreach and Commission Appellate Adjudication; increase of 3 FTE for agency business process improvement activities
	Training	(0.6)	Reduction of $0.6M in contract dollars for agency leadership and professional development training
Implementation Plan Subtotal		**(18.1)**	
Additional Adjustments Required to Adhere to Control Points	Acquisitions	(1.2)	Total reduction of 8 FTE includes a reduction of 3 FTE in the number of certified contracting officers available, as well as an additional 5 FTE reduction in the Business Advisory Center.
	Administrative Services	(7.7)	Reduction of 2 FTE for staff involved with space, design work, and construction management, as well as staff involved with the management and oversight of the NRC's property management custodians. Reduction of $7.4M in contract dollars for *Federal Register* print charges, paper for printing and copying, printer toner cartridges, Government Printing Office printing, guard services, utilities, and White Flint Complex restack and renovation activities.
	Financial Management	(0.5)	Reduction of 3 FTE for staff involved with performance management and financial reporting biennial reviews.
	Human Resource Management	(0.2)	Reduction of 1.5 FTE for agency recruitment and outreach efforts, as well as engagement programs such as public service recognition week and national engineering week.
	Information Management	(0.3)	Reduction of 2 FTE for librarian services and staff involved with Freedom of Information Act/Privacy Act (FOIA/PA) activities.

Category	Product Line	Amount ($M)*	Description
	Information Technology	(0.9)	Reduction of 3.5 FTE for the Business Process Re-e7ngineering function. Reduction of $0.4M for standards development and implementation for cybersecurity policy, compliance, and training.
Additional Adjustments Subtotal		**(10.8)**	
Corporate Support Realignment		**(24.6)**	A detailed accounting of the Corporate Support realignment is provided in response to Question 57. $24.6M is the net amount of resources moved out of Corporate as a result of the realignment. Certain resources were realigned within Corporate, or moved into Corporate from other business lines.
Elimination of Office Support		**(1.5)**	Net S&B reduction from elimination of Office Support and associated allocation methodology. Previously, office support FTE were allocated to programs based on an algorithm. Now, these FTE are budgeted in the specific programs they support.
NET CHANGE TO CORPORATE SUPPORT		**(55.0)**	

**All numbers rounded.*

*** Includes $6.6M S&B differential distributed among all product line reductions. The NRC implemented a split rate for salaries and benefits (S&B) for Corporate and programmatic business line FTE on the basis that corporate staff is, on average, at somewhat lower grade levels than technical staff which results in an S&B differential between the two groups.*

QUESTION 59. **If corporate support costs have been cut (as distinct from resource realignment to business units), please provide a detailed accounting of what the savings were spent on.**

a. If the savings were reallocated and spent, please describe why this action is nonetheless characterized by the NRC as a "cut" instead of as a reallocation of spending.

ANSWER.

The $18.1M was reduced from the Corporate Support budget (the "Implementation Plan Subtotal" in the *Detail of Changes to the Corporate Support Business Line* table in the response to Question 58) was cut from the agency's budget as part of the agency's implementation of the $990 million level enacted by Congress for Fiscal Year (FY) 2016.

An additional $10.8M was moved from the Corporate Support budget to program budgets (the "Additional Adjustments Subtotal" in the *Detail of Changes to the Corporate Support Business Line* table in the response to question number 58) in order to adhere to the corporate support control points enacted for FY 2016. This funding was not cut from the agency's budget. The $10.8 million reduced from corporate was added to program budgets within the control points to fund early out/buyout costs, programmatic IT, and decommissioning licensing actions, as detailed below.

Early Outs/Buy Outs

The cost of early outs/buyouts recently executed and planned for FY 2016 was not factored into the S&B rate used to formulate the FY 2016 budget. Eight million dollars was allocated to agency S&B for the program business lines to fund early out/buyouts. The first early out/buyout opportunity was focused on corporate staff, with costs incurred in the first and second quarter of the fiscal year, and the FTE reductions realized in the second, third, and fourth quarters. The second round, currently underway, is larger in scope and is weighted toward program staff. The additional funding will increase the S&B rate for program staff and provide funding for unbudgeted early out/buyout costs through the end of FY 2016.

The additional funding was allocated to the program S&B budgets as shown below.

Increases to Program Salaries and Benefits (S&B)	
Control Point / Business Line	**$M**
Operating Reactors	4.9
New Reactors	1.4
Reactor Safety Control Point	**$ 6.3**
Spent Fuel Storage and Transportation	0.3
Nuclear Materials Users	0.7
Fuel Facilities	0.4
Materials and Waste Safety Control Point	**$ 1.4**
Decommissioning and Low Level Waste	0.3
Decommissioning and Low Level Waste Control Point	**$ 0.3**

Increases to Program Salaries and Benefits (S&B)	
Control Point / Business Line	**$M**
Total Program S&B Increase	**$ 8.0**

Mission IT

$2.1M was allocated to the program business lines to fund high-priority IT projects. The additional funding was allocated to the program budgets to support major IT systems in the Operating Reactors and Nuclear Materials Users Business Lines.

Increases to Program Mission IT	
Business Line / Product Line	**$M**
Development of the *Replacement Reactor Program System (RRPS)*.	1.3
Operating Reactors / Oversight	**$ 1.3**
Enhancement of the *Integrated Source Management Portfolio (ISMP).*	0.8
Nuclear Materials Users / Generic Homeland Security	**$ 0.8**

The *Replacement Reactor Program System (RRPS)* is a multi-year information technology modernization project that supports both the Operating Reactors and New Reactors Business Lines in the Nuclear Reactor Safety Program. RRPS is envisioned to be a major agency-level workload management system with multiple modules that facilitate planning, scheduling, tracking, and reporting of inspection, licensing, and other agency activities for power reactors, non-power reactors, fuel facility sites, vendor sites, and independent spent fuel storage installations. RRPS replaces a legacy system that has obsolete computer code, is costly to maintain, and does not fully meet programmatic requirements. The new system will provide a more secure, robust, and intuitive interface for the user community. The additional funding will support development and deployment of the licensing and inspection modules of RRPS, and start development of the final feature set for the oversight module of RRPS. Functions in the oversight module include reactor status and event monitoring, human factors, and reactor oversight process. Full deployment of RRPS is planned for October 2017.

The *Integrated Source Management Portfolio (ISMP)* consists of three distinct and complementary information systems: the Web Based Licensing (WBL) System; the National Source Tracking System (NSTS); and the License Verification System (LVS). These systems support radioactive materials credential tracking (license and certificate), inspection tracking, item tracking (devices and sources), and license verification. The additional funding will add features to WBL to improve efficiency and accuracy of license amendment processing; allow the system to flexibly interface with external fee management systems; and ready Agreement State configuration for storage of data on license types extending beyond routine nuclear materials licenses.

Decommissioning Licensing Actions

$0.7M was allocated to the Decommissioning and Low-Level Waste Business Line to support decommission licensing actions in the areas listed below.

Increases to Decommissioning and Low-Level Waste	
Product Line / Product	**$M**
Radiological Evaluation Assistance	0.6
Licensing Assistance / Financial Assurance Reviews	0.1
Licensing / Decommissioning Licensing Actions	**$ 0.7**

Additional funding supported radiological evaluations and assistance from Oak Ridge National Laboratory, including radium scoping surveys, licensing assistance from the Idaho National Laboratory, and fuel cycle and decommissioning financial assurance reviews.

QUESTION 60. **Please provide a detailed accounting of why corporate support costs are increasing in spite of the corporate support cost shifting into the business units. Please reconcile this increase with the NRC assertions regarding its successes in cutting corporate support.**

ANSWER.

Corporate Support Budget Authority and Full-Time Equivalents by Product Line (Dollars in Millions)						
	FY 2016 Implementation		FY 2017 Request		Changes from FY 2016	
Product Line	**$M**	**FTE**	**$M**	**FTE**	**$M**	**FTE**
Acquisitions	15.2	71.1	16.3	72.9	1.1	1.8
Administrative Services	99.8	104.1	105.3	107.4	5.5	3.3
Financial Mgmt.	28.4	106.7	31.4	109.9	3.0	3.2
Human Resource Mgmt.	19.2	57.8	18.7	57.5	(0.5)	(0.3)
Information Mgmt.	22.7	71.7	27.6	69.0	4.9	(2.7)
Information Technology	89.7	166.3	86.6	161.1	(3.1)	(5.2)
Outreach	4.2	17.8	4.6	17.9	0.4	0.1
Policy Support	21.5	123.2	23.7	120.2	2.2	(3.0)
Training	4.3	14.0	4.9	14.1	0.6	0.1
Total	**$305.0**	**732.0**	**$319.1**	**730.0**	**$14.1**	**(2.0)**

$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

The deltas described in the chart above do not reflect the impacts of the decision by the Commission in SRM-SECY-16-0009, "Recommendations Resulting from the Integrated Prioritization and Re-Baselining of Agency Activities", to accept, with a few exceptions, the staff's recommendations for additional re-baselining cuts to the FY 2017 budget. As part of that decision, an additional $3.6 million in Corporate Support, including $1.9 million in contract support and 11.3 FTEs, has been identified for reduction in FY 2017, which would bring the amount for corporate support to $315.4 million.

Corporate Support business line increases from FY 2016 to FY 2017 include:

- Right-Sizing Corporate Information Technology (IT)
- increase in financial management mission IT to ensure adequate funding for operations and maintenance(O&M) of core financial systems and for investments in the Cost Accountability Program, the time and labor data collection system, and implementation of necessary improvements in fee policy development and fee billing

- increase in acquisitions mission IT for application administration and support for STAQS (the agency's strategic acquisition system)

- Commissioner Offices
  - increase in the Policy Support product line based on the assumption that five Commission offices will be fully staffed in FY.
- Information Management
  - increase to prepare for pending release of controlled unclassified information requirements from the National Archive and Records Administration, additions for ADAMS and SharePoint to meet O&M requirements, and additional resources for information and records management digitization
- Administrative Services
  - increase for personnel security, utilities, and support services
- Training
  - resources increase for additional course delivery and development for the agency's Professional Development Center

Additional cuts in the Corporate Support budget will be reassessed as part of the agency's implementation plan for the enacted FY 2017 budget.

QUESTION 61. **Please describe what steps the NRC will take to reduce corporate support spending. Please do not reference opaque cost-shifts into business units.**

a. Please provide the timelines for projected corporate support reduction.

b. Please list the amounts of future corporate support reductions.

ANSWER.

Significant reductions to the NRC's corporate support resources—both FTEs and contract dollars—will be realized in FY 2017 and beyond. Expected savings and timeframes are outlined below.

Project Aim

- Ongoing Project Aim efficiency initiatives will further reduce corporate costs in FY 2017. In a March 24, 2016, memorandum, "Resources Allocated to the Corporate Support Business Line", the Executive Director for Operations and the Chief Financial Officer instructed the directors of select corporate offices to work as a group to perform the following:
  (1) Analyze corporate support workload and resources in light of the recent agency re-baselining and declining programmatic workloads and staffing levels.
  (2) Recommend further reductions to corporate FTE in FY 2018 and beyond.
- The working group presented recommendations for efficiencies that would provide an overall reduction of 14 percent from FY 2017 in corporate support FTE. These potential reductions will be presented to the Commission for review in the staff's FY 2018 and FY 2019 budget proposals.

Real Property

Over the next several fiscal years, the agency plans to continue reducing its real estate footprint and associated fixed costs both at headquarters and in the regions.

- Reduce Office Space at Headquarters. Reducing office space in Three White Flint North (3WFN) will achieve rent savings each year. The agency will accomplish this by relinquishing two floors in 3WFN: one floor by the end of FY 2018 and one floor by the

end of FY 2019. This activity would involve moving approximately 300 staff members to OWFN or TWFN and paying costs for furniture, as well as moving and related costs. Progress in this area is contingent upon the availability of funding to renovate headquarters space to accommodate additional staff. Initial savings would be realized starting in FY 2019 and are contingent on GSA securing another Federal tenant to backfill the 3WFN space.

Reduce Office Space in the Regions. The agency will achieve significant savings per year paid in rent through the end of the agency's leases on Region II and Region III offices. The NRC will reduce l regional office space based on regional reductions planned for FY 2018 through FY 2020. Additional savings may be realized through reductions to office space in Regions I and IV in later fiscal years. This activity would involve moving approximately 150 staff members in all four regions and backfill costs. Progress in this area is contingent upon the availability of upfront funding for any needed construction, security, clean up, and staff move costs. Initial savings would be realized starting in FY 2018 for Region III and FY 2019 for Region II. The savings are contingent on timely backfill of the Region II space by GSA with another Federal tenant.

Information Technology

In FY 2016 and FY 2017, the agency plans to adopt new acquisition strategies for corporate support services to reduce costs for ongoing support. Examples include new acquisition strategies for major IT cost categories:

- IT Infrastructure Support. The NRC is in the process of re-competing the agency's enterprise IT infrastructure support contract. The agency expects to realize a significant 10- to 15-percent drop in its contract expenses resulting from the new acquisition strategy.

- Multi-Functional Devices and Managed Print Services. The NRC is moving to a new acquisition approach that will reduce the total cost of ownership for the agency's existing fleet of printers, scanners, and copiers.

QUESTION 62. **Please provide a detailed explanation of any possible further redefinition of corporate support or overhead costs.**

ANSWER.

The NRC has no plans to redefine corporate support or overhead costs.

QUESTION 63. **Please provide a detailed explanation of any future overhead cost-shifting that is under consideration, including cost-shifting or realignment associated with corporate support costs.**

ANSWER.

The NRC is not planning to realign corporate support resources or shift overhead costs in the future. However, the agency will continue to actively manage agency budgets to make sure that NRC adheres to control points and that resources contained in the Corporate Support business line are consistent with the definition for agencywide overhead activities as described in Question 56 and the needs of the agency.

The Honorable Jeff Sessions

QUESTION 64. **Do you agree that the United States already has storage options for commercial spent nuclear fuel; that is, Independent Spent Fuel Storage Installations (ISFSI) located at NRC-licensed facilities across the nation?**

ANSWER.

Yes, commercial spent nuclear fuel is stored safely in spent fuel pools and independent spent fuel storage installations at NRC-licensed facilities across the Nation. Spent fuel pools and dry casks both provide for reasonable assurance of adequate protection of the public health and safety and the environment. NRC regulations also provide a framework for licensing new commercial spent fuel storage facilities.

QUESTION 65. **Do you agree that the NRC determined, in the Continued Storage Rule, that used nuclear fuel from commercial reactors can be safely managed in reactor fuel storage pools in the short term and in steel and concrete storage containers for longer timeframes?**

ANSWER.

Yes. The environmental impact statement supporting the Continued Storage Rule concluded that it was technically feasible to safely store spent fuel for 60 years after the end of a reactor's licensed operating life for storage in a pool, and in 100-year increments thereafter for storage in spent fuel casks based on the agency's existing regulatory structure and licensing and regulating experience.

QUESTION 66: **The Obama administration is focusing its efforts on interim storage while continuing to neglect its statutory duty under the Nuclear Waste Policy Act to proceed with the licensing process for permanent storage at Yucca Mountain. I am concerned that the NRC has been a willing participant in the current administration's defiance of permanent nuclear storage mandates established by Congress.**

The NRC is an independent commission that must operate in the manner required by law and unimpeded by political concerns. Please explain how the NRC's failure to include funding for the Yucca Mountain license process is consistent with its obligations under the Nuclear Waste Policy Act, which provides that the NRC "shall consider" the Yucca license application and "shall issue a final decision approving or disapproving" the application.

ANSWER.

The NRC budget request is the product of a Commission deliberation and vote. There has not been majority support for requesting funds for continuing and completing the Yucca Mountain licensing process. Thus, the NRC's fiscal year (FY) 2017 budget request did not include new FY 2017 funding for the Yucca Mountain review. .

The Commission's focus has been on how to spend the remaining available Nuclear Waste Funds to continue with the licensing process, as ordered by the U.S. Court of Appeals for the District of Columbia Circuit in the case known as *In re Aiken County*. The Court's mandamus order does not include a requirement for the Commission to request additional funds. The Commission directed the staff to complete its safety evaluation report, develop an

environmental impact statement, and make documents related to the licensing proceeding (Licensing Support Network documents) publicly available. Further, the Commission has previously stated that it will require substantial additional funding and a willing applicant before it can perform all the tasks necessary to make a construction authorization decision on the Yucca Mountain application.

QUESTION 67. **Budget request process:**

a. Isn't it true that the NRC budget request is prepared and approved by the NRC before it is ultimately sent to the Administration for its review?

b. As Chairman of the NRC, did you include funding for Yucca Mountain licensing in your budget proposal?

c. Have you informed the White House Office of Management and Budget that the Nuclear Waste Policy Act requires the NRC to consider the Yucca Mountain license application?

ANSWER.

a. The NRC budget request is approved following the official Internal Commission Procedures.

b. The NRC did not include funding for Yucca Mountain licensing in the FY 2017 Congressional Budget Justification. The NRC budget request is the product of a Commission deliberation and vote. There has not been majority support for requesting funds for continuing and completing the Yucca Mountain licensing process.

c. The NRC follows Office of Management and Budget Circular A-11 procedures on the confidentiality of budget deliberations.

QUESTION 68. **It is my understanding that the NRC is refusing to request funds for the Yucca Mountain license application, while spending research funds studying "alternative geologic media" [i.e. rock structures other than Yucca Mountain] for purposes of waste disposal.**

Please identify all such expenditures by the NRC on research activities related to geologic media since August 2013, when the D.C. Circuit issued a writ of mandamus ordering the NRC to spend available funds on the Yucca Mountain license activities. Further, please identify amounts the NRC anticipates spending in FY 2016 and FY 2017 on research related to "alternative geologic media."

ANSWER.

Since August 2013, the NRC has spent approximately $6.5 million and dedicated 10 full-time equivalents (FTE) for these activities, which allow the NRC to maintain staff expertise on geologic disposal of high-level waste, keep current with technical knowledge in the topical areas, and support the safe and secure ultimate disposition of spent nuclear fuel and high-level radioactive waste. The NRC has planned for total resources of approximately $2.2 million and 4 FTE for these activities budgeted in FY 2016 and 2017 in its re-baselined budget requirements.

QUESTION 69: **Please explain why the Commission would submit a budget to Congress that does not request funding for legally-mandated work on the Yucca license, while at the same time, spending funds on**

research for other alternative repository options? Why should electricity customers be forced to pay more for research on alternative geologic repositories, when the billions of dollars they have already paid for purposes of the permanent repository at Yucca Mountain are not being properly utilized for those purposes?

ANSWER.

The NRC's rationale for keeping current with waste repository technology is outlined in the response to Question 67. The Commission's focus has been on how to spend the remaining available Nuclear Waste Funds as ordered by the Court related to the Yucca Mountain licensing process.