

**Jolicoeur, John**

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**From:** Lusk, Perry (b)(6)  
**Sent:** Friday, March 10, 2017 7:15 PM  
**To:** Jolicoeur, John; Lewis, Robert; Rasouli, Houman  
**Cc:** Benedict, Hilary M; Rusco, Franklin  
**Subject:** [External\_Sender] Draft GAO Report for NRC Comment (100685)  
**Attachments:** ALL\_STAFF-#1992297-v1-100685\_DRAFT\_REPORT\_FOR\_AGENCY\_COMMENTS.PDF

March 10, 2017

Kristine L. Svinicki  
Chairman  
U.S. Nuclear Regulatory Commission

Dear Mr. Chairman:

(b)(5),(b)(6)

Sincerely yours,

[signed]

Frank Rusco  
Director, Natural Resources and Environment

Attachment

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

April 10, 2017

Mr. Frank Rusco, Director  
Natural Resources and Environment  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20226

Dear Mr. Rusco:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your e-mail dated March 10, 2017, which provided the NRC an opportunity to review and comment on the U.S. Government Accountability Office (GAO) draft report GAO-17-233, "Strategic Human Capital Management: NRC Could Better Manage the Size and Composition of its Workforce by Further Incorporating Leading Practices."

The NRC staff appreciates the opportunity to review the draft report as well as the GAO staff's professionalism and constructive interactions during this GAO engagement. Overall, the NRC agrees with the draft report and its findings. The draft report provides an accurate perspective of strategic workforce planning at the NRC. In January I formed a working group whose purpose is to develop a plan for a comprehensive, integrated, and systematic Strategic Workforce Planning (SWP) process. The expected outcome, once implemented, is to enhance the existing SWP process by better integrating the agency's workload projection, skills identification, human capital management, individual development, and workforce management activities. In the enclosure to this letter, we have provided some minor comments and clarifications for your consideration.

Thank you again for the opportunity to provide comments on the GAO report. Please feel free to contact Mr. John Jolicoeur at (301) 415-1642 or [John.Jolicoeur@nrc.gov](mailto:John.Jolicoeur@nrc.gov) if you have questions or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Victor M. McCree".

Victor M. McCree  
Executive Director  
for Operations

Enclosure:  
NRC Comments on Draft Report  
GAO-17-233

The U.S. Nuclear Regulatory Commission Comments on Draft Report GAO-17-233  
March 2017

**Clarifying Comments and Suggestions:**

1. On page 1, the first sentence of the first paragraph states that, "From 2005 to early 2010...increased by about 59 percent and about 27 percent." Footnote 1, second sentence states that the NRC's workforce is calculated based on data from NRC's budget justifications for fiscal years 2006 and 2011. The U.S. Nuclear Regulatory Commission (NRC) could not validate the 27% workforce increase statement. We would suggest a clarification to footnote 1, to explain the use of 2006-2011 budget justification. Overall, the document refers to different time periods and may benefit from better explanations about how they relate to FY 2005-2010.
2. On page 7, the first line, substitute "relinquishes" for "delegates" to correctly describe the statutory framework for the Agreement State program under section 274 of the Atomic Energy Act.
3. On page 7, second bullet, insert "uranium recovery, and the disposal of" between "service" and "low-level radioactive waste" to describe this Business Line.
4. On page 7, third bullet, insert "high-level radioactive" between "...store spent nuclear fuel and" and "waste".
5. On page 7, first full paragraph, last sentence, insert "in areas relevant to NRC's mission" between "research and development" and "and provides grants", to read as follows (addition noted in red), "...which supports university research and development in areas relevant to NRC's mission and provides grants to support research projects."
6. On page 7, footnote 19 – substitute "2010" for "2012" regarding when NRC stopped requesting funds for conducting the review of the Construction Authorization for Yucca Mountain.
7. On page 10, first paragraph, state budget amount with consistent years for comparison. For example, budget and workforce comparisons switch between fiscal year (FY) 2010 and FY 2011 throughout the document. If workforce increases are enacted budget amounts, cite 3,108 full-time equivalent (FTE) to 3,923 FTE, including the Office of the Inspector General.
8. On page 10, second paragraph, it is suggested that the percentage increases in FTE be made consistent with those cited on page 1 and page 25.
9. On page 11, first bullet *New reactors*-- the paragraph is mixing FTE allocations by office and business line. Substitute "New Reactor Business Line" for the "Office of New Reactors" in the first sentence to correct inconsistencies.
10. On page 12, second bullet – substitute "the DOE motion to withdraw" for "DOE withdrew" in relation to the Department of Energy's actions regarding its Yucca Mountain license application.
11. On page 13, first paragraph – consider adding NRC's merger of the Office of Federal and State Materials and Environmental Programs (FSME) back into the Office of Nuclear

Enclosure

Material Safety and Safeguards (NMSS) in 2014. [The Commission established FSME in 2006 and approved its merger back into NMSS in 2014]. Although not an initiative under Project Aim, this is an example of the Commission's focus on aligning the agency's resources with its workload, even prior to the Project Aim initiative.

12. On page 18, the second paragraph states that Office Level officials develop staffing plans based on FTE allocations set by OCHCO based on the budget. However, FTE allocations are established and set by OCFO. Therefore, change OCHCO to OCFO.
13. On page 20, second paragraph (and accompanying footnote 34) cites the Office of Personnel Management (OPM) guidance to agencies on the Human Capital Assessment and Accountability Framework (HCAAF) (2006). Since 5 CFR Part 250 (B) Final Rule for Strategic Workforce Management was revised, the requirements for Federal agencies have been updated. GAO should consider adding a phrase that clarifies that HCAAF has been revised due to the updated requirements and OPM is developing implementing guidance to agencies.
14. On page 22, the draft report contains summaries of statements from two individuals including one NRC official and an NRC union representative. It is recommended that references to single representatives interviewed during the review process be removed from the report as their perspectives may not be shared by others or be reflective of the true state of strategic workforce planning at the NRC.
15. On pages 22-23, (and accompanying footnote 41) see comment 13 above regarding HCAAF Framework of 2006.
16. On page 23, bottom paragraph, substitute "Quarterly Performance Review" for "quarterly."

**Jolicoeur, John**

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**From:** Rueckhaus, Jeffrey R <RueckhausJ@gao.gov>  
**Sent:** Thursday, March 02, 2017 3:29 PM  
**To:** Jolicoeur, John; Rasouli, Houman; Lewis, Robert  
**Cc:** Rusco, Franklin; Benedict, Hilary M; Carrigan, Alisa  
**Subject:** [External\_Sender] Draft GAO Report for NRC Comment (100728 - Yucca Mountain Licensing)  
**Attachments:** DRAFT - GAO-17-340 - OOU.pdf

March 2, 2017

The Honorable Kristine L. Svinicki  
Chairman  
U.S. Nuclear Regulatory Commission

Dear Chairman Svinicki:

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Sincerely yours,

[signed]

Frank Rusco  
Director, Natural Resources and Environment

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

April 5, 2017

Mr. Frank Rusco, Director  
Natural Resources and Environment  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20226

Dear Mr. Rusco:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your e-mail dated March 2, 2017, which provided the NRC an opportunity to review and comment on the U.S. Government Accountability Office (GAO) draft report GAO-17-340, "Commercial Nuclear Waste: Resuming Licensing of the Yucca Mountain Repository Would Require Rebuilding Capacity at DOE and NRC. Among Other Key Steps."

The NRC staff appreciates the opportunity to review the draft report as well as the GAO staff's professionalism and constructive interactions during this GAO engagement. Overall, the NRC agrees with the draft report and its findings. In the enclosure to this letter, we have provided some minor comments and clarifications for your consideration, which may help to provide an accurate historical perspective of Yucca Mountain repository development and to clarify key steps that would be necessary should the licensing process resume.

Thank you again for the opportunity to provide comments on the draft GAO report. Please feel free to contact Mr. John Jolicoeur at (301) 415-1642 or [John.Jolicoeur@nrc.gov](mailto:John.Jolicoeur@nrc.gov) if you have questions or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Victor M. McCree", with a long horizontal flourish extending to the right.

Victor M. McCree  
Executive Director  
for Operations

Enclosure:  
NRC Comments on Draft Report  
GAO-17-340

## NRC Comments on Draft Report GAO-17-340

### Clarifying Comments and Suggestions:

1. On page 2, on the second line from the bottom of the last paragraph, we suggest the following insert be made (as shown in red): "for making NRC's initial decision about whether, relative to the matters challenged in the parties' contentions, safety and environmental laws and regulations..."

As the sentence currently reads, it seems to suggest that licensing board initial decision findings will constitute an overall ruling on the repository's compliance with safety and environmental requirements. In fact, they relate only to the contested matters the parties bring before the boards. This revision also would make this sentence consistent with what is correctly noted to be the Commission's authority on page 37 of the current draft report.

2. On page 3, first sentence, delete "one or more licensing Boards" – at the time of the notice of hearing, the petitions were directed to the Commission generally; the boards were established a bit later.

3. On page 3, the fourth line, we suggest the following revision (as shown in red): "the three licensing boards convened ~~at the time~~ to rule on hearing petitions announced".

This revision would make clear the authority of the first three boards relative to the fourth board that subsequently was created to manage the proceeding, including the discovery process, following the initial three boards' hearing petition rulings.

4. On page 3, last sentence – delete "responding to the contentions and" – all litigants, not just DOE, had the ability to respond to contentions; DOE is one of several parties who did this; the sentence as structured suggests it was just DOE who did this.

5. In footnote four, we suggest the following revision (as shown in red):

~~Except as noted,~~ NRC regulations require that entities seeking admission as a party to the Yucca Mountain licensing adjudication demonstrate that they have standing to participate in the proceedings. Entities seeking party status are also required to demonstrate their compliance with NRC's requirements related to the Licensing Support Network and to submit one or more admissible contentions. ~~As an exception,~~ NRC regulations also provide that 10 Nevada and California counties considered "affected units of local government" as defined by the NWPA, as well as affected Indian tribes, were not required to demonstrate standing. Also, a governmental entity ~~is seeking~~ can seek admission into the adjudication as an "interested governmental

body," rather than a party, which allows ~~who are not required or permitted to~~ participation as a litigant relative to any party's admitted ~~submit~~ contentions.

With these edits, the footnote will be a more accurate description of NRC procedural requirements regarding participation by intervenors and other interested entities. For example, an interested governmental body need not submit a contention to participate in the proceeding under that provision but is not barred from submitting a contention in an effort to gain party status.

6. In footnote five, the first line, we suggest that the word "recognized" be deleted as creating ambiguity and unnecessary. Also, if the suggestion in Comment 5 above is adopted, the last sentence of this footnote can be deleted as duplicative.

7. On page 3, footnote 7 – should be reworded to avoid use of the word "direct" – it is up to the applicant to decide, when a board, the Commission, or the staff, finds an application to be deficient, whether it wishes to voluntarily amend the application (or take some other action) to rectify the problem. The NRC can point out the problem, but in the end the applicant takes action voluntarily. The footnote could be revised (as shown in red) to read "officials, based on interaction with a licensing board, the Commission, or the NRC staff, DOE ~~could also direct~~ DOE to make changes to its application." The draft report uses the term "the five-member Commission" in several other places. We recommend referring simply to "the Commission" because the Commission could have fewer than five members at a given time.

8. On page 4, in the third line of the first paragraph, we suggest the following revision (as shown in red): "~~one of the~~ a fourth licensing boards convened to manage party discovery, a motion to withdraw its license application".

Per item 3 above, this will clarify which licensing board was dealing with the DOE withdrawal motion.

9. Also, on page 4, last two sentences of the first paragraph; we suggest the following revision (as shown in red):

~~Subsequently, NRC and a federal appeals court reviewed~~ the licensing board denied DOE's withdrawal motion, a ruling that was allowed to stand when the Commission announced on September 9, 2011, that it was evenly divided on whether to take review of, and overturn or uphold the board's decision, and directed the board to "complete all necessary and appropriate case management activities, including disposal of matters currently pending before it." ~~and~~ Accordingly, in September 2011, the licensing board formally suspended the licensing adjudication.

Although these sentences were redrafted in response to agency comments on the previous version of the GAO report, these changes (consistent with the previous suggestions) are necessary to ensure that this important sequence of events is accurately characterized.

10. On page 8, middle paragraph, last sentence states:

"NRC's regulations, among other things, define safety and environmental protection standards for a proposed repository and outline the requirements and process for licensing Yucca Mountain (see app. 1)."

The U.S. Environmental Protection Agency sets environmental protection standards for Yucca Mountain, which are incorporated into NRC's regulations for Yucca Mountain. To avoid potential confusion regarding which agency sets environmental protection standards, we suggest the following revision (as shown in red):

"NRC's regulations, among other things, ~~define~~ specify safety requirements and incorporate the U.S. Environmental Protection Agency's environmental protection standards for a proposed repository at Yucca Mountain, and outline the additional requirements and the process for licensing Yucca Mountain (see app. 1)."

11. On page 8, footnote 15 states:

"The act generally prohibits the NRC from issuing a commercial license to a nuclear facility that lacks such a contract."

The NWPA provides NRC discretion in providing a precondition for issuance or renewal of a license but does not set any prohibition to NRC licensing as suggested by this footnote. This footnote should either be deleted or revised to more accurately reflect the language in Section 302(b)(ii)(B) of the NWPA.

12. On page 9, paragraph following the figure states:

"Shortly after DOE submitted its license application for Yucca Mountain on June 3, 2008, the NRC staff conducted an initial screening of DOE's application, as required in NRC regulations, and in September 2008, found that the application was sufficient for NRC to carry out its review and, therefore, should be 'docketed.' Subsequently, the staff began its technical review of the application, including its review of the EIS for the repository and detailed safety review of the license application. These reviews followed decades of interactions between DOE and NRC staff, while DOE studied the Yucca Mountain site and prepared its license application."

As written, the text states that the EIS review by NRC staff did not begin until after the application acceptance review and docketing decision. NRC's staff adoption determination of the EIS was issued concurrently with the docketing decision. Thus the EIS review was completed at the time of docketing and not, as implied in the text that this review began at that time. The text on the EIS can be deleted here as the EIS adoption is covered in the paragraph that follows. We suggest the following revisions (as shown in red):

"Shortly after DOE submitted its license application for Yucca Mountain on June 3, 2008, the NRC staff conducted an initial screening of DOE's application, as required in NRC regulations, and in September 2008, found that the application was sufficient for NRC to carry out its review and, therefore, should be 'docketed.' Subsequently, the staff began its technical review of the application, including its review of the EIS for the repository and detailed safety review of the license application. ~~These reviews~~ This review followed decades of interactions between DOE and NRC staff, while DOE studied the Yucca Mountain site and prepared its license application."

13. On page 9, Figure 1, Item 2 states:

"NRC's staff screens DOE's license application. If the application is accepted for docketing and review, the staff begins its technical review of the application and DOE's Environmental Impact Statement for the proposed repository"

Based on the same rationale provided under comment 12, we suggest the following revision (as shown in red):

"NRC's staff screens DOE's license application. If the application is accepted for docketing and review, the staff begins its technical review of the application ~~and DOE's Environmental Impact Statement for the proposed repository.~~"

14. On page 9, we suggest that the following portion of the reference in the fifth column of figure 1 be revised (as shown in red) to read "Day 955: Licensing board(s) ~~considers~~ completes consideration of..."

This change is needed to conform the language in the figure to the information provided in 10 C.F.R. Part 2, App. D, which is the basis for that portion of the figure.

15. On page 9, we suggest that the initial portion of the first reference in the last column of figure 1 be revised (as shown in red) to read "Day 1,055: NRC Commission completes its ~~reviews~~ of contested issues..."

This change also is needed to conform the language in the figure to the information provided in 10 C.F.R. Part 2, App. D, which is the basis for that portion of the figure.

16. On page 10, footnote 20 – we suggest rewording the footnote as follows for greater precision, since the jurisdiction of the two PAPO Boards was very carefully drawn by the Commission. "Prior to submission of DOE's license application and commencement of the adjudication, two other preliminary licensing boards were appointed to (1) rule on disputes over the electronic availability of documents, and (2) to advise the Commission and issue case management orders on procedural matters expected to arise during the adjudication."



17. On page 13, second sentence, replace “ruled that NRC had defied federal law by halting its licensing review” with “granted a writ of mandamus and directed the NRC to promptly continue the licensing process.”

18. On page 13, after the sentence that ends with footnote 22, but immediately prior to the footnote reference, we would like to propose the additional clarifying text (as shown in red):

“...NRC did not resume the licensing adjudication. In response to the court’s decision, the Commission sought input from the parties to the adjudication and thereafter issued an order detailing the course of action to continue with the licensing process. In particular, the Commission directed the NRC Staff to complete and issue the Safety Evaluation Report and to enter the LSN documents in the possession of the Secretary into ADAMS, the NRC’s official recordkeeping system and to prepare for allowing public access to all documents. Further, the Commission requested DOE to prepare the supplemental EIS associated with the repository’s groundwater impacts.<sup>22</sup>”

Additionally, footnote 22 incorrectly cites to the Circuit Court decision and should be revised to read:

Memorandum and Order, NRC, In the Matter of U.S. Department of Energy (High-Level Waste Repository), Docket No. 63-001-HLW, 78 NRC 219, Nov. 18, 2013); see also *re Aiken County*, 725 F.3d 255 (D.C. Cir. 2013).

19. On page 13, Figure 2, Box # 7 – Delete “After affirming the licensing board’s ruling on an equally divided vote” and begin the text with “The Commission directs...” – The Commission did not expressly affirm the Board’s ruling. The Board’s decision was allowed to stand following the Commission’s equally divided vote on whether to undertake review of the Board’s decision. Rather than explain all this in the box (it’s explained later in the text), just delete the introductory clause.

20. On page 18, we suggest that the ninth line of the first paragraph be revised (as shown in red) to read “At the same time, a the licensing board appointed to manage party discovery during the adjudication, as well as”.

This will conform this reference with the revisions suggested in Comment 8 above.

21. On page 18 – In the sentence beginning “Moreover...”, delete “later reviewed and” – for the reason stated above in Comment 19: the Commission did not take review of the decision.

22. On page 19, on line 6 from the top of the page, delete the words "discovery phase" as unnecessary.

23. On page 19 – Line 8, change "its" to "the Board's" to avoid ambiguity.

24. In footnote 34, on the third line revise "a licensing board" to "the licensing board" to remove any ambiguity about which board made the referenced decision.

25. On page 20, Line 1, change "was defying" to "violated". Later in the same sentence, insert "sufficient" before "funding."

26. On page 20, in the first full paragraph, we request that line 2 be revised (as shown in red) to state "instructed the agency staff and others" and that on line 5 the word "staff" be deleted.

Because of separation of functions considerations, the NRC staff, which is a party to the Yucca Mountain proceeding, has not been involved in creating or operating the LSN Library. That work has been done by the Office of the Chief Information Officer under the direction of the Office of the Secretary and the Atomic Safety and Licensing Board Panel.

27. On page 21, in the first full paragraph, for the reasons detailed in Comment 26 above, we request that line 10 be revised (as shown in red) to read "agency information technology staff".

28. On page 21, the following sentence could be added to the end of footnote 42 to further update the status of the LSN Library project: NRC officials subsequently advised us that all LSN Library document reconciliation activities are anticipated to be completed by the end of March 2017.

This statement is consistent with the information being provided to the Congress as part of the NRC's monthly report on agency Nuclear Waste Fund-related activities.

29. Regarding the section entitled "Resuming and Completing the Licensing Process Would Likely Require Four Key Steps, Which May Be Influenced by Several Factors."

The use of the word "direction" as used in the section titled "Resuming and Completing the Licensing Process Would Likely Require Four Key Steps, Which May Be Influenced by Several Factors," starting on page 22, could be misinterpreted. NRC suggests that GAO revise the section, including the table in Figure 3, to clarify who is providing and receiving direction, and to clarify that prior to the resumption of licensing activities, DOE would communicate its intention to

once again pursue the application. As currently drafted, the report could be interpreted to suggest that the NRC would need to receive direction to resume the licensing proceedings.

30. On page 23, Figure 3, Box 3: Consider revising the first bullet to read: "NRC's five-member Commission and the Atomic Safety and Licensing Boards" – an initial order lifting the suspension most likely will be issued by the Commission, and orders are not issued by the Panel, but rather are issued by individual boards.

31. On page 27, Line 1, replace "orders" with "direction", since some Commission direction may come via staff requirements memorandum, as opposed to orders.

32. Also on page 27, we request that the seventh and eighth lines of text from the bottom of the page be revised (as shown in red) to read "600 hearing ~~hours~~ days, ~~and included~~ the costs".

This accurately reflects the figure given in the referenced August 29, 2014 letter.

33. On page 34, in the fourth line from the top of the page the reference to "ASLBP" needs to be changed to "NRC".

This change would be consistent with agency comments regarding the original draft. Although the Commission or the NRC staff might require DOE to show it has taken into account new information, that generally is not something a licensing board would require, at least in the absence of an admitted new or amended contention, a reference to which was part of the prior draft's discussion in this paragraph, but has now been removed.

34. On page 35, we suggest that lines 3-5 from the bottom be revised (as shown in red) to read "In memoranda from May 2010 and February 2011 to ~~one of~~ the licensing boards appointed during the Yucca Mountain adjudication to manage party discovery,".

This is consistent with the changes we have suggested for Comments 8 and 20 above.

35. On page 37, on the eighth and ninth lines from the bottom of the page, we suggest the sentence be revised (as shown in red) to read "the Director of the Office of ~~the~~ Nuclear Material Safety and Safeguards".

This revision would provide the correct title for the NMSS Director.

36. On page 38, second full sentence states:

"The Department of the Interior currently controls the land rights for the Yucca Mountain site."

The "Yucca Mountain site" (as defined in 10 CFR 63.2) occupies land that is controlled by multiple Federal agencies and not just the Department of the Interior. As stated in DOE's license application (Chapter 5, page 5.8-2): "The GROA and surrounding land, shown as within the land withdrawal area boundary on Figure 5.8-1, include about 150,000 acres of land currently under the control of the DOE, the U.S. Department of Defense, and the U.S. Department of the Interior (DOE 2002, Section 1.4.1)." We suggest the following revision (as shown in red):

"Multiple Federal agencies (i.e., Department of Defense, Department of Energy, and The Department of the Interior) currently controls the land rights for the Yucca Mountain site as defined in 10 CFR 63.2."

#### **Typographical and Minor Corrections:**

Page 2, four lines from the bottom, change "administrative law judges" to "administrative judges." The NRC does not employ administrative law judges.

Page 3, footnote 5 and throughout -- "Esmerelda" should be "Esmeralda".

Page 5, line 5, "Materials" should be "Material".

Page 10, first full paragraph, first line: "Secretary of Energy" needs to be changed to "Secretary of the Commission" or simply "Secretary" [note: for NRC the "Secretary" is defined in 10 CFR Part 2 as the Secretary of the Commission].

Page 27, Line 21, there appears to be a word missing between "potential" and "full-time". Consider inserting "future" there.

Page 31, the transposition in the fifth line from the bottom of the text should be corrected to read "their personnel".

Page 33, last paragraph, 9 lines from end: It appears the sentence beginning "Or witnesses..." should be "Other witnesses..."

Page 36, the second line from the bottom of the text transposition "ALSBP" should be corrected to "ASLBP".

Page 37, the eleventh line from the top, the word "any" should be deleted as unnecessary.

Page 37, last line: The phrase "...within the repository operations..." should be (as shown in red) "...within the repository operations area..."

Page 40, in table 1, in the first line of the second bulleted "Description" item, the word "Act" needs to be added after the words "Nuclear Waste Policy".

**Jolicoeur, John**

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**From:** Kolling, Amanda (b)(6)  
**Sent:** Thursday, March 16, 2017 3:18 PM  
**To:** Jolicoeur, John; Lewis, Robert; Rasouli, Houman  
**Cc:** Anderson, Nathan J; Trimble, David C; (b)(6)  
**Subject:** [External\_Sender] Transmittal of GAO Draft Report for NRC Comment (100208)  
**Attachments:** ALL\_STAFF-#2007094-v2-100208\_-\_REPORT\_TO\_AGENCY\_FOR\_COMMENT\_-\_3\_16\_2017.PDF

March 16, 2017

Mr. Victor M. McCree  
U.S. Nuclear Regulatory Commission

Dear Mr. McCree:

(b)(5)

Sincerely yours,

David Trimble  
Director, Natural Resources and Environment

Attachment



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

April 14, 2017

Mr. David Trimble, Director  
Natural Resources and Environment  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20226

Dear Mr. Trimble:

On behalf of the U. S. Nuclear Regulatory Commission (NRC), I am responding to your e-mail dated March 16, 2017, which provided the NRC an opportunity to review and comment on the U.S. Government Accountability Office (GAO) draft report GAO-17-306, "Nuclear Waste: Opportunities Exist to Reduce Risks and Costs by Evaluating Different Waste Treatment Approaches at Hanford."

The NRC staff appreciates the opportunity to review the draft report as well as the GAO staff's professionalism and constructive interactions during this GAO engagement. The draft report provides an overview of treatment options for Department of Energy (DOE) low-activity waste, DOE experience in implementing alternatives for the disposal of low-activity waste, and the DOE process for the selection of treatment options. However, we believe that the report would benefit from a few additional insights regarding NRC's technical assessment and further clarifications concerning applicable statutory and regulatory citations. In the enclosure to this letter, we have provided some detailed comments and clarifications for your consideration.

Thank you again for the opportunity to provide comments on the GAO report. Please feel free to contact Mr. John Jolicoeur at (301) 415-1642 or [John.Jolicoeur@nrc.gov](mailto:John.Jolicoeur@nrc.gov) if you have questions or need additional information.

Sincerely,

A handwritten signature in black ink that reads "Victor M. McCree". The signature is written in a cursive style with a long, vertical flourish extending downwards from the end of the name.

Victor M. McCree  
Executive Director  
for Operations

Enclosure:  
NRC Comments on Draft Report  
GAO-17-340

**U.S. Nuclear Regulatory Commission Comments on the Draft Government Accountability Office Report (GAO-17-306), "Nuclear Waste: Opportunities Exist to Reduce Risks and Costs by Evaluating Different Waste Treatment Approaches at Hanford"**

In the following comments, underlining is used for suggested additions and strikethrough is used for suggested deletions.

**Introduction and Page 1:** The introduction, under "What GAO Found," and Page 1 currently includes the following two sentences. "Formerly, all tank waste stored at the Hanford and Savannah River Sites was classified as high-level waste, even though most of the waste at both sites was of comparatively low radioactivity. Under federal law, all such waste must be vitrified." Read together, these sentences suggest that all high-level waste must be vitrified. The NRC is not aware of any statutory, regulatory, or other basis for the statement that all high-level waste be vitrified. The NRC suggests the sentence that currently reads, "Under federal law, all such waste must be vitrified" be stricken in its entirety.

**Pages 11 and 12:** One of the NRC's overarching concerns with the draft is that in some places it could more clearly represent the role of certain NRC regulations in the implementation of Section 3116 of the National Defense Authorization Act for fiscal year 2005 (NDAA). Specifically, clarification of the references to Title 10 of the *Code of the Federal Regulations* (10 CFR), Part 61, in the NDAA would be useful. The suggested addition below reflects the language of Section 3116 of the NDAA and clarifies the role of the NRC regulation in the implementation of the statute:

Section 3116. Section 3116 of the National Defense Authorization Act for fiscal year 2005 authorizes the Secretary of Energy, in consultation with the NRC, to determine that certain waste from reprocessing is not HLW if it meets the criteria set forth in that section: that it does not require disposal in a deep geologic repository, that it has had highly radioactive radionuclides removed to the maximum extent practical, and that it meets concentration limits and/or dose-based performance objectives for near-surface disposal of radioactive waste specified in Title 10 of the *Code of Federal Regulations* (CFR) Part 61, and that it will be disposed of pursuant to a state-issued permit or state-approved closure plan.

**Page 12:** The NRC suggests the specific changes shown below to clarify whether the provisions and restrictions described appear in legislation, regulation, or guidance. The changes also update the status of the NRC's 10 CFR 61 rulemaking and clarify that the 1,000- or 10,000-year compliance period was proposed in the draft final rulemaking. The NRC suggests clarifying and moving the final sentence of the paragraph in the main text to the footnote as shown because the sentence pertains to the regulation, and the paragraph is denoted "NRC guidance" in the GAO draft. If the sentence is retained in the main text, it should be edited to state that the draft final rule proposes either a 1,000 or 10,000 year compliance period depending on the characteristics of the waste. For waste incidental to reprocessing, most wasteforms would be expected to contain significant quantities of long-lived radionuclides and therefore a 10,000 year compliance period would be used.

Enclosure

NRC guidance. ~~According to NRC guidance implementing section 3116,~~ (The 2004 legislation authorizes DOE to manage certain waste at its Savannah River and Idaho Sites as low-level waste. According to NRC guidance implementing section 3116 (NUREG-1E54), NRC recommends a 10,000 year period for demonstrating compliance with the performance objectives of 10 CFR Part 61, over the course of a 10,000-year period of performance. DOE used the 10,000-year period of performance in its 2012 EIS on the Hanford Site for its assessment of the long-term impacts from groundwater, human health, and ecological risks. ~~NRC recently proposed changing its period of performance to 1,000 years, but this rule has not yet been finalized.~~ <sup>(footnote)</sup>

<sup>(footnote)</sup> In 2016, NRC developed a ~~notice of proposed draft final rulemaking that contains requirements for analyses timeframes.~~ The draft final rulemaking proposed which proposed either a 1,000-year or a 10,000-year compliance period—depending on whether the waste contains significant quantities of long-lived radionuclides—followed by a performance period. The performance period refers to the period of time over which a licensee must demonstrate that effort has been made to minimize releases to the extent reasonably achievable.

**Page 29:** The NRC staff agrees that the study the Department of Energy (DOE) cited in the text below supports its assumptions about the hydraulic properties of saltstone. However, other studies of the core samples challenge key DOE assumptions about the release of technetium and iodine. The NRC recommends adding the following text and footnote as shown:

Savannah River Site officials also told us that a multi-year study examined core samples from one of the site's grout vaults and found that DOE's assumptions about radiation releases from grout have mostly been affirmed.<sup>63</sup> The NRC staff agreed that this study supported DOE's assumptions but noted that other studies of the same core samples challenge key assumptions about technetium and iodine releases. <sup>(new footnote)</sup>

<sup>63</sup> DOE, *Property Data for Core Samples Extracted from SOU Cell 2A*, SRR-CWDA-2016-00051 Rev. 0 (Aiken, SC: April 2016).

<sup>(new footnote)</sup> DOE, *Contaminant Leaching from Saltstone*, SREL-DOC No. R-16-0003 (Aiken, SC: September 2016).

**Page 29:** The NRC appreciates the GAO representation of different DOE and NRC views about the NRC letter of concern regarding saltstone disposal at the Savannah River Site. The NRC understands that DOE expressed an opinion that the model prompting the NRC concern is a worst-case scenario, and that the NRC has a different opinion. However, the NRC believes that the statement that "the model did not use engineered barriers" is an oversimplification. The model that prompted the concern derived significant improvements in projected performance from the engineered floor of the disposal structure, which slowed radionuclide release and lowered the projected dose by approximately an order of magnitude. The NRC therefore recommends adding new sentences as reflected below:

DOE officials and NRC officials appear to have different opinions on the extent to which technetium-99 retention is a technical challenge at the Savannah River Site. DOE officials told us that this is a minor issue and that the model prompting this concern was based on a "worst case scenario" that did not use engineered barriers and assumed that all of the grout in the



Site's grout vaults instantaneously failed. NRC officials expressed the view that while some model assumptions did appear to be conservative or pessimistic, others appeared to be optimistic. Specifically, NRC officials stated that, while it may not have been intended to represent engineered barriers, the model derived significant projected dose reduction from the disposal structure floors. Other disagreements focused on the projected performance that the model derived from issues related to the timing of grout degradation.

**Page 29:** Although the NRC understands that the passage below reports what DOE told GAO, section 3116(b) of the NDAA states that "The Commission shall, in coordination with the covered State, monitor disposal actions taken by the Department of Energy pursuant to subparagraphs (A) and (B) of subsection (a)(3) for the purpose of assessing compliance with the performance objectives set out in subpart C of part 61 of title 10, Code of Federal Regulations." Because the passage below is written in the context of a discussion of saltstone grout at the Savannah River Site, to which section 3116(b) of the NDAA applies, the implication that NRC regulations do not apply is likely to be confusing. The NRC therefore recommends adding the noted sentence below:

DOE officials also told us that the NRC limits do not apply to DOE's low-level waste disposal sites, which includes the Savannah River Site grout vaults. NRC officials stated that Section 3116 of the NDAA does apply NRC limits to certain wastes determined by DOE to be incidental to reprocessing rather than HLW, which includes certain Savannah River Site grout vaults, and that NRC uses subpart C of 10 CFR Part 61 and its related guidance to fulfill its monitoring role under the NDAA.

**Jolicoeur, John**

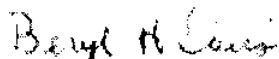
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**From:** Philpott, Laura M (Michelle) <PhilpottL@gao.gov>  
**Sent:** Monday, April 17, 2017 7:38 PM  
**Subject:** [External\_Sender] GAO Draft Report for Agency Comment: Fiscal Year 2015 IPERA Compliance (100948)  
**Attachments:** GAO DRAFT Report\_Fiscal Year 2015 IPERA Compliance (100948).pdf  
**Importance:** High

Dear Agency Heads and Inspectors General:

(b)(5),(b)(6)

Sincerely yours,



Beryl Davis  
Director, Financial Management and Assurance  
U.S. Government Accountability Office

CC:

Agency for International Development  
Mr. Wade Warren, Acting Administrator  
The Honorable Ann Calvaresi Barr, Inspector General

Council of the Inspectors General on Integrity and Efficiency  
The Honorable Michael E. Horowitz, CIGIE Chair

Department of Agriculture  
Mr. Mike Young, Acting Secretary  
The Honorable Phyllis Fong, Inspector General

Department of Commerce  
Mr. Wilbur Ross, Secretary  
The Honorable Peggy Gustafson, Inspector General

Department of Defense

Mr. James Mattis, Secretary

Mr. Glenn Fine, Acting Inspector General

Department of Education

Ms. Betsy DeVos, Secretary  
The Honorable Kathleen Tighe, Inspector General

Department of Energy

Mr. Rick Perry, Secretary  
Ms. April Stephenson, Acting Inspector General

Department of Health and Human Services

Mr. Tom Price, Secretary  
The Honorable Daniel Levinson, Inspector General

Department of Homeland Security

Mr. John F. Kelly, Secretary  
The Honorable John Roth, Inspector General

Department of Housing and Urban Development

Dr. Ben Carson, Secretary  
The Honorable David A. Montoya, Inspector General

Department of the Interior

Mr. Ryan Zinke, Secretary  
Ms. Mary L. Kendall, Acting Inspector General

Department of Justice

Mr. Jeff Sessions, Secretary  
The Honorable Michael E. Horowitz, Inspector General

Department of Labor

Mr. Ed Hugler, Acting Secretary  
The Honorable Scott Dahl, Inspector General

Department of State

Mr. Rex Tillerson, Secretary  
The Honorable Steve Linick, Inspector General

Department of Transportation

Ms. Elaine Chao, Secretary  
The Honorable Calvin L. Scovel, III, Inspector General

Department of the Treasury

Mr. Steven Mnuchin, Secretary  
The Honorable Eric M. Thorson, Inspector General

Department of Veterans Affairs

Mr. David Shulkin, Secretary  
The Honorable Michael Missal, Inspector General

Environmental Protection Agency

Mr. Scott Pruitt, Administrator  
The Honorable Arthur A. Elkins, Jr., Inspector General

General Services Administration

Mr. Timothy O. Horne, Acting Administrator  
The Honorable Carol Fortine Ochoa, Inspector General

National Aeronautics and Space Administration  
Mr. Robert M. Lightfoot, Jr., Acting Administrator  
The Honorable Paul K. Martin, Inspector General

National Science Foundation  
Ms. France A. Cordova, Director  
Ms. Allison Lerner, Inspector General

Nuclear Regulatory Commission  
Ms. Kristina L. Svinicki, Chairman  
The Honorable Hubert T. Bell, Inspector General

Office of Management and Budget  
Mr. Mick Mulvaney, Director

Office of Personnel Management  
Ms. Kathleen McGettigan, Acting Director  
Mr. Norbert Vint, Acting Inspector General

Small Business Administration  
Ms. Linda McMahon, Administrator  
Mr. Hannibal Ware, Acting Inspector General

Social Security Administration  
Ms. Nancy A. Berryhill, Acting Commissioner  
Ms. Gale Stallworth Stone, Acting Inspector General

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**Jolicoeur, John**

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**From:** Booth, Justin J (b)(6)  
**Sent:** Monday, February 27, 2017 4:13 PM  
**To:** Jolicoeur, John  
**Cc:** Hinchman, David B; Lewis, Robert; Rasouli, Hourman; Powner, David A  
**Subject:** [External\_Sender] 100984/101420 - Transmittal of Draft Report for Agency Comments (Data Center Consolidation Planning and Progress) - NRC  
**Attachments:** Draft\_GAO-17-388\_secured.pdf

February 27, 2017

The Honorable Kristine L. Svinicki  
Chairman  
Nuclear Regulatory Commission

Dear Madam Chairman:

(b)(5),(b)(6)

Sincerely yours,

//signed//

David A. Powner  
Director, Information Technology  
Management Issues

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March 29, 2017

Mr. David A. Powner, Director  
Information Technology Management Issues  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, D.C. 20548

Dear Mr. Powner:

Thank you for providing the U.S. Nuclear Regulatory Commission (NRC) with the opportunity to review and comment on the U.S. Government Accountability Office's (GAO) draft report GAO-17-388, "Data Center Optimization: Agencies Need to Complete Plans to Address Inconsistencies in Reported Savings." The NRC has reviewed the draft report and is in general agreement with its findings. The NRC is not in agreement with the recommendation for NRC as explained in the enclosure. In addition, NRC has a few minor comments to the report and Appendix I for GAO consideration. Please see these comments in the enclosure to this letter.

If you have any questions regarding the NRC's response, please contact John Jolicoeur by phone at (301) 415-1642 or by e-mail at [John.Jolicoeur@nrc.gov](mailto:John.Jolicoeur@nrc.gov).

Sincerely,

***/RA Michael R. Johnson Acting for/***

Victor M. McCree  
Executive Director  
for Operations

Enclosure:  
As stated

Letter from V. McCree, EDO to D. Powner, GAO Dated March 29, 2017

**DISTRIBUTION:** LTR-17-0093-1/GAO-17-388 code 100984/101420

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\*Concur via e-mail

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NAME	JDougherty*	KDunbar GHayden for	GHayden	TRich GHayden for
DATE	03/24/2017	03/23/2017	03/23/2017	03/23/2017
OFFICE	OGC	OCIO/DD	OCIO/D	EDO
NAME	MNorris*	SFlanders	DNelson	VMcCree (MJohnson acting for)
DATE	03/23/2017	03/24/2017	03/24/2017	03/29/2017

OFFICIAL RECORDS COPY

**U.S. Nuclear Regulatory Commission Comments on GAO-17-388, "Data Center Optimization: Agencies Need to Complete Plans to Address Inconsistencies in Reported Savings," Draft Report**

The U.S. Nuclear Regulatory Commission's (NRC's) comment on the draft report, for the Government Accounting Office (GAO) consideration, is as follows:

1. Page 14, paragraph 2, in part states:

*We also recommend that the following 23 agencies (the Secretaries of the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Homeland Security, Housing and Urban Development, Interior, Labor, State, Transportation, Treasury, and Veterans Affairs; the Attorney General; and the Administrators of the Environmental Protection Agency, General Services Administration, National Aeronautics and Space Administration, Small Business Administration, and U.S. Agency for International Development; the Director of the Office of Personnel Management; the Chairman of the Nuclear Regulatory Commission; and the Commissioner of the Social Security Administration) each take action to complete the missing elements in their respective DCOI strategic plan, including addressing any identified challenges, and submit their completed strategic plan to OMB.*

The NRC did complete the Data Center Optimization Initiative (DCOI) strategic plan following the process requested. The NRC's Strategic Plan JavaScript Object Notation (JSON) file was created following directions and the schema provided by the Office of Management and Budget (OMB) located at <https://management.cio.gov/schema/#DCOI>. The plan that was submitted to OMB was considered complete by the NRC's OMB desk officer and the DCOI analyst. Additionally, the NRC prepared a supplemental document that can be found at <http://www.nrc.gov/public-involve/open/digital-government/september2016.html>. This document contains some information beyond the strategic plan JSON file that was not required in the OMB defined strategic plan schema.

The NRC reached out to OMB after they submitted the draft report entitled Data Center Optimization Update for Congress, which stated that the NRC was only partially complete with the DCOI strategic plan. OMB agreed that the NRC had met all the requirements and that OMB would update the final report accordingly.

The NRC recognizes that GAO has no intention to publish updates to the Appendix I, Briefing for Staff Members of Congressional Committees, of the report. However, the NRC believes that it is important to include the following clarification comments to Appendix I:

1. Page 72, paragraph 2, in part states:

*We also recommend that the Secretaries of the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Homeland Security, Housing and Urban Development, Interior, Labor, State, Transportation, Treasury, and Veterans Affairs; the Attorney General; the Administrators of the Environmental Protection Agency, General Services Administration, National Aeronautics and Space Administration, Small Business Administration, and U.S. Agency for International Development; the Director of the Office of Personnel Management; the Chairman of the Nuclear Regulatory Commission; and the Commissioner of the Social Security Administration take action to complete the missing elements in their respective DCOI*

Enclosure

*strategic plan, including addressing any identified challenges, and submit their completed strategic plan to OMB.*

Page 63, Table 8:

*Table 8 shows NRC partially meeting both the Cost Savings Metric (FY2016 through FY2018) and the CIO Statement.*

The NRC did complete the Data Center Optimization Initiative (DCOI) strategic plan following the process requested. The NRC's Strategic Plan JSON file was created following directions and the schema provided by OMB located at <https://management.cio.gov/schema/#DCOI>. The plan that was submitted to OMB was considered complete by the NRC's OMB desk officer and the DCOI analyst. Additionally, the NRC prepared a supplemental document that can be found at <http://www.nrc.gov/public-involve/open/digital-government/september2016.html>. This document contains some information beyond the strategic plan JSON file that was not required in the OMB defined strategic plan schema.

The NRC reached out to OMB after they submitted the report, stating that the NRC was only partially complete with the DCOI strategic plan. OMB agreed that the NRC had met all the requirements and that OMB would update the final report accordingly.

The NRC met with GAO via teleconference on December 5, 2016, regarding the Chief Information Officer (CIO) statement. GAO explained that the rating was only "partially met" because the CIO statement was not publicly available. The CIO statement was posted to the NRC's public Web site, and the NRC sent a follow-up e-mail to GAO on December 6, 2016, providing the location of the Web site.

2. Page 32, Paragraph 1, in part states:

*Finally, in March 2016, we reported<sup>31</sup> that agencies had continued to make progress in their data center consolidation efforts. Specifically, we noted that agencies had reported closing 3,125 of the 10,584 total data centers as of November 2015. We further noted that 19 of the 24 agencies had reported achieving an estimated \$2.8 billion in cost savings and avoidances from their data center consolidation and optimization efforts from fiscal years 2011 to 2015. Agencies were also planning an additional \$5.4 billion in cost savings and avoidances, for a total of approximately \$8.2 billion, through fiscal year 2019. However, we stated that planned savings may be higher because 10 agencies<sup>32</sup> that reported planned closures from fiscal years 2016 through 2018 had not fully developed their cost savings goals for these fiscal years. In addition, agencies had made limited progress against OMB's fiscal year 2015 data center optimization performance metrics, such as the utilization of data center facilities. Accordingly, we recommended that the agencies take actions to complete their cost savings targets and improve optimization progress. Most agencies agreed with the recommendations or had no comments.*

Legacy NRC data centers were created in existing spaces that were converted to automation spaces without the benefit of being designed to support information technology equipment. Although spaces were fitted with uninterruptible power supplies and computer room air handler units, the spaces did not have sufficient cooling and backup generator power, nor did they have metering and monitoring capability. The NRC has been working

toward the DCOI goals of achieving optimization by virtualization and reducing the number of old, non-tiered data centers that cannot be metered, monitored, or measured. Determining cost savings in legacy data centers by adding metering and monitoring capabilities is not practical, as it would require spending funds to enhance data centers that will be closed in the future. Early potential savings estimates were calculated based on the likelihood of savings from virtualization and are not truly quantifiable based on the lack of metering and monitoring capabilities in place. For the data centers that the NRC plans to keep going forward, the NRC has included requests in the fiscal year 2019 budget for funds to implement the metering and monitoring capabilities needed to start collecting metrics that could be used to show future cost savings.

3. Page 74, paragraphs 1-2, in part state:

*We received comments on a draft of our briefing from OMB and 17 of the 24 agencies to which we made recommendations. In its comments, OMB neither agreed nor disagreed with our recommendations, but noted the state of agencies' strategic plans and its work with agencies to complete their plans.*

*Among the responding agencies, 4 stated that they agreed with our recommendations, 1 (Agriculture) indicated that it did not agree with our recommendation, 3 commented on our findings but did not provide a position on the recommendations, and 8 stated that they had no comments. In addition, 1 provided only technical comments, while 2 agencies provided technical comments along with their other comments. All technical comments were incorporated as appropriate. We did not receive a response from 7 agencies...*

Page 79, paragraph 1, in part states:

*The Departments of Education, Health and Human Services, Housing and Urban Development, and Justice; the Environmental Protection Agency; the National Aeronautics and Space Administration; and the Nuclear Regulatory Commission did not provide comments on the draft briefing.*

After reviewing the GAO draft, the NRC provided written comments to GAO via e-mail on November 30, 2016.



**Jolicoeur, John**

---

**From:** Grimes, Bridget A (b)(6)  
**Sent:** Tuesday, February 14, 2017 7:03 PM  
**To:** Jolicoeur, John; Lewis, Robert; Rasouli, Housman  
**Cc:** Rusco, Franklin; Benedict, Hilary M  
**Subject:** [External\_Sender] Draft GAO Report for NRC Comment (100910)  
**Attachments:** GAO 100910 - Draft for Agency Comment.pdf

February 14, 2017

Kristine L. Svinicki  
Chairman  
U.S. Nuclear Regulatory Commission

Dear Chairman Svinicki:

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Sincerely yours,

[signed]

Frank Rusco  
Director, Natural Resources and Environment

Attachment



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

March 17, 2017

Mr. Frank Rusco, Director  
Natural Resources and Environment  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20226

Dear Mr. Rusco:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your e-mail dated February 14, 2017, which provided the NRC an opportunity to review and comment on the U.S. Government Accountability Office (GAO) draft report GAO-17-344, "Nuclear Regulatory Commission: Efforts Intended to Improve Procedures for Requesting Additional Information for Licensing Actions are Underway."

The NRC staff appreciates the opportunity to review the draft report, and we appreciate the GAO staff's professionalism and many constructive interactions during this GAO engagement. Overall, the NRC agrees with the draft report and its findings. The draft report accurately describes the request for additional information process and the efforts the NRC has taken to make this process more efficient and effective. In the enclosure to this letter, we have provided some minor comments and clarifications for your consideration.

Thank you again for the opportunity to provide comments on the GAO report. Please feel free to contact Mr. John Jolicoeur at (301) 415-1642 or [John.Jolicoeur@nrc.gov](mailto:John.Jolicoeur@nrc.gov) if you have questions or need additional information.

Sincerely,

A handwritten signature in black ink that reads "Victor M. McCree".

Victor M. McCree  
Executive Director  
for Operations

Enclosure:  
NRC Comments on Draft Report  
GAO-17-344

**U.S. Nuclear Regulatory Commission Comments  
on the U.S. Government Accountability Office Draft Report GAO-17-344, "Nuclear  
Regulatory Commission: Efforts Intended to Improve Procedures for Requesting  
Additional Information for Licensing Actions are Underway"**

The U.S. Nuclear Regulatory Commission's (NRC's) comments on the draft report for the U.S. Government Accountability Office (GAO) consideration, are as follows:

1. The report references Office of Nuclear Reactor Regulation (NRR) Office Instruction LIC-101, Revision 4, dated May 25, 2012, in a number of places. The NRC understands that this was the revision of LIC-101 that GAO reviewed during the audit. Page 7 of the report states, "An NRC official told us that management incorporated changes contained in the April 2016 expectations memorandum into a new edition – version five – of LIC-101 in January 2017." This comment is to confirm that LIC-101, Revision 5, was issued on January 9, 2017, and does incorporate changes regarding the request for additional information (RAI) process from the expectations memorandum. LIC-101, Revision 5, is publicly available in the NRC's Agencywide Documents Access and Management System (ADAMS) at Accession No. [ML16061A451](#).
2. The first sentence in the second paragraph on page 1 of the report currently reads as follows: "NRC offices that issue RAIs do not track the number of RAIs that they have issued and do not have a comprehensive accounting for the last 5 years, but information from NRC officials and licensees GAO interviewed suggests that certain activities and circumstances often elicit RAIs." Since the Office of New Reactors' tracking system (i.e., eRAI) has the capability to track the numbers of RAIs, it is suggested that the sentence be revised to read as follows: "NRC offices that issue RAIs do not specifically track the number of RAIs that they have issued and do not have a comprehensive accounting for the last 5 years, although one office does have a system capable of tracking the number of RAIs (as discussed later in the report). ~~but information~~ Information from NRC officials and licensees GAO interviewed suggests that certain activities and circumstances often elicit RAIs."
3. Figure 1 on page 5 of the report contains a graphic on the RAI process. The first step, "NRC and licensee communicate pre-application," is shown with a green background indicating it is an "additional step." As correctly noted on page 8 of the report, not all applications include this step. As such, GAO should consider changing the background color to gray to indicate this is an "optional step." This figure is also shown on page 1 of the report.
4. The last sentence in the first paragraph on page 6 currently reads as follows: "If it is found during acceptance review that the application does not contain sufficient information, the application may be returned to the applicant or denied." It is suggested that this sentence be revised to read as follows: "If it is found during acceptance review that the application does not contain sufficient information, the application may remain tendered while ~~be~~ ~~returned~~ to the applicant submits supplemental information, or may be denied."
5. The second paragraph on page 6 discusses the steps associated with the RAI process. This paragraph states, in part, that, "After management review, NRC issues RAIs to licensees." The NRC staff notes that, prior to formally issuing RAIs to the licensee, the staff will often send the RAIs to the licensee in draft form, and a clarification call is held with the licensee to make sure the information needs are understood and to make sure that the RAI language is clear. In cases where a draft RAI is issued, the NRC would issue the formal RAI after the call. The NRC requests that the report be revised to add discussion regarding draft RAIs and clarification calls.

Enclosure

6. The second to last sentence in the first paragraph on page 8 currently reads as follows:  
"This memorandum accompanied an updated RAI job aid to replace the earlier version, as well as two other job aids focused on carrying out audits and confirmatory analysis, in which staff conduct an independent assessment of a licensee's calculation or research." It is suggested that the words "or research" be deleted from this sentence.
7. The third sentence in the second full paragraph on page 9 currently reads as follows: "For example, officials from the Office of New Reactors told us there are plans to reexamine the process to develop and issue RAIs throughout upcoming license reviews." It is suggested that this sentence be revised to read as follows: "For example, officials from the Office of New Reactors told us there are plans to ~~reexamine~~ assess the revised process to for developing and ~~issue~~ issuing RAIs throughout upcoming license reviews to look for additional opportunities for improvement."
8. The second to last sentence in the second paragraph on page 10 currently reads as follows: "The Office of New Reactors' guidance for RAIs states that applicants will be encouraged to respond to questions once they have prepared their responses, rather than respond to packages of multiple questions on a set date." It is suggested that this sentence be revised to read as follows: "The Office of New Reactors' guidance for RAIs expects that applicants' responses are provided within 30 days and also states that applicants will be encouraged to respond to questions once they have prepared their responses, rather than respond to packages of multiple questions on a set date."
9. The first sentence in the last paragraph on page 11 currently reads as follows: "NRC offices that issue RAIs do not track the number of RAIs that they issue, and there is no legal requirement for the agency to track the number of RAIs." Since the Office of New Reactors' tracking system (i.e., eRAI) has the capability to track the numbers of RAIs, it is suggested that this sentence be revised to read as follows: "Several of the NRC offices that issue RAIs do not track the number of RAIs that they issue, and there is no legal requirement for the agency to track the number of RAIs."
10. The first sentence in the first paragraph on page 12 currently reads as follows: "Officials also said the number of RAIs per year depends on how many license applications the office receives; it can take 5 years or more to review a combined license application and officials said they typically review 20 to 25 license amendments per year." It is suggested that this sentence be revised to read as follows: "Officials also said the number of RAIs per year depends on how many license applications the office receives; it can take 5 years or more to review and make a decision on a combined license application and, in contrast, for plants that are licensed, ~~officials said they~~ the NRC typically reviews 20 to 25 license amendments per year."
11. The last two sentences in the second paragraph on page 12 currently read as follows:  
"However, according to an official, the office does not use eRAI to track the number of RAIs. Instead, the Office of New Reactors uses eRAI to monitor RAIs associated with applications that can be up to 12,000 pages long, identify related questions, and track RAIs by regulatory issue area." It is suggested that this text be revised to read as follows: "However, according to an official, the office does not just use eRAI to track the number of RAIs. ~~Instead, the Office of New Reactors also uses eRAI to monitor RAIs associated with applications that can be up to 12,000 pages long, identify related questions, and track RAIs by regulatory issue area.~~"
12. The last paragraph on page 12 discusses the "Reactor Replacement Program System." The name of the system should be shown as the "Replacement Reactor Program System."



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

January 3, 2017

CHAIRMAN

Mr. David C. Trimble, Director  
Natural Resource and Environment  
U.S. Government Accountability Office  
441 G Street, N.W.  
Washington, DC 20548

Dear Mr. Trimble:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am writing in response to the U.S. Government Accountability Office (GAO) Report, GAO-16-713, "Nuclear Material: Agencies Have Sound Procedures for Managing Exchanges but Could Improve Inventory," dated October 24, 2016.

The NRC agrees with the findings of the report. In addition, the NRC would like to comment on the two recommendations from the report:

- Recommendation 1: Clarify in guidance the conditions under which facilities may carry negative obligation balances.

Response: The NRC staff intends to review and revise NUREG/BR-0006, "Instructions for Completing Nuclear Material Transaction Reports (DOE/NRC Forms 741 and 740M)" and NUREG/BR-0007, "Instructions for the Preparation and Distribution of Material Status Reports (DOE/NRC Forms 742 and 742C)." NRC informed licensees of this plan at the 2016 Annual Nuclear Material Management and Safeguards System (NMMSS) Users Training Meeting in May 2016. Since that meeting, the NRC staff has worked with the U.S. Department of Energy (DOE)/National Nuclear Security Administration and NMMSS program staff to commence the review of these documents. The revisions will include clarifications to the guidance pertaining to obligation balances and reporting, including negative obligation balances. The NRC staff anticipates having the revised guidance available in 2017.

- Recommendation 2: Develop an early-warning monitoring capability in NMMSS to alert senior DOE officials when the inventory of unobligated low-enriched uranium is particularly low.

Response: Because this recommendation concerns matters only affecting DOE, the NRC has no response to this recommendation.

If you have any questions regarding the NRC's response, please contact Mr. John Jolicoeur by phone at 301-415-1642 or via e-mail at [John.Jolicoeur@nrc.gov](mailto:John.Jolicoeur@nrc.gov).

Sincerely,

Stephen G. Burns

cc: Nathan Anderson, GAO

**Identical letter sent to:**

Mr. David C. Trimble  
Director, Natural Resources and  
Environment  
U.S. Government Accountability Office  
441 G Street, N.W., Washington, DC 20548  
cc: Nathan Anderson, GAO

The Honorable Jason Chaffetz  
Chairman, Committee on Oversight and  
Government Reform  
United States House of Representatives  
Washington, DC 20515  
cc: Representative Elijah Cummings

The Honorable Ron Johnson  
Chairman, Committee on Homeland  
Security and Governmental Affairs  
United States Senate  
Washington, DC 20510  
cc: Senator Thomas R. Carper

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

The Honorable Shelley Moore Capito  
Chairman, Subcommittee on Clean Air  
and Nuclear Safety  
Committee on Environment and Public  
Works  
United States Senate  
Washington, DC 20510  
cc: Senator Thomas R. Carper

The Honorable Fred Upton  
Chairman, Committee on Energy  
and Commerce  
United States House of Representatives  
Washington, DC 20515  
cc: Representative Frank Pallone, Jr.

The Honorable Pete Olson  
Vice Chairman, Subcommittee on Energy  
and Power  
Committee on Energy and Commerce  
United States House of Representatives  
Washington, DC 20515  
cc: Representative Bobby L. Rush

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



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

January 6, 2017

Mr. David C. Trimble, Director  
Natural Resources and Environment  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20548

Dear Mr. Trimble:

Thank you for providing the U.S. Nuclear Regulatory Commission (NRC) with the opportunity to review and comment on the U.S. Government Accountability Office's (GAO) draft report GAO-17-174, "Nuclear Waste: Benefits and Costs Should Be Better Understood Before DOE Commits to a Separate Repository for Defense Waste."

The report recommends that the U.S. Department of Energy comprehensively assess benefits, costs, and schedule for its proposed options, and address key prerequisites needed for the site selection process before engaging potential local communities and embarking on site selection activities. The report discusses NRC's role in regulating potential disposal facilities. The NRC has reviewed the report and has no significant comments for GAO's consideration.

If you have any questions regarding the NRC's response, please contact Mr. John Jolicoeur by phone at (301) 415-1642 or by e-mail at [John.Jolicoeur@nrc.gov](mailto:John.Jolicoeur@nrc.gov).

Sincerely,

A handwritten signature in black ink that reads "Victor M. McCree".

Victor M. McCree  
Executive Director  
for Operations



**Jolicoeur, John**

---

**From:** Sanchez, Robert E (b)(6)  
**Sent:** Tuesday, January 31, 2017 4:25 PM  
**To:** Sanchez, Robert E  
**Cc:** Anderson, Nathan J; Carroll, Lee H; Ion, Cristian V  
**Subject:** [External\_Sender] Release of GAO-17-174 DOE Defense Waste

Good afternoon,

GAO today publicly issued GAO-17-174, **Nuclear Waste: Benefits and Costs Should Be Better Understood Before DOE Commits to a Separate Repository for Defense Waste, January 31, 2017.**

I am sending you this e-mail because you provided some input into the development of this report. I want to thank you for the input that you provided. Input from you—and others—are essential for our data gathering and analysis and I appreciate the assistance of a great many people whose views are reflected in myriad ways in the report.

I am also providing you a link to the report. There were no restrictions on its issuance or dissemination. Please pass this link on to others you think might be interested in the report. Also, please don't hesitate to contact me if you have questions, comments, or concerns about the report.

Thank you.

Robert

**Nuclear Waste:**

Benefits and Costs Should Be Better Understood Before DOE Commits to a Separate Repository for Defense Waste

GAO-17-174:Published: Jan 31, 2017. Publicly Released: Jan 31, 2017.

Robert Sanchez (b)(6) Government Accountability Office

Phone (b)(6) | Fax (b)(6) 1244 Speer Blvd. (b)(6) Denver, CO 80204

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

February 14, 2017

Mr. Frank Rusco  
Director, Natural Resources and Environment  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20226

Dear Mr. Rusco:

I am responding to your letter of January 11, 2017, which provided the U.S. Nuclear Regulatory Commission (NRC) an opportunity to review and comment on the U.S. Government Accountability Office (GAO) draft report GAO-17-294, "Nuclear Regulatory Commission: Changes Planned to Budget Structure and Justification."

The NRC staff appreciates the opportunity to review the draft, and we appreciate the GAO staff's professionalism and many constructive interactions during this GAO engagement. Overall, the NRC agrees with the draft report and its findings. Below we offer comments on two of the reports key findings, and in the enclosure to this letter, we have provided several technical comments and corrections for your consideration.

The NRC agrees with the GAO findings that some NRC budget structure changes have created confusion amongst users of NRC's budget request. The NRC plans to continue its efforts that began in fiscal year 2016 to improve the transparency of budget information for external stakeholders. The NRC recognizes the need to continue to communicate these efforts to minimize any confusion associated with this change.

The NRC also agrees with the GAO finding that the NRC's budget request did not align with its budget execution or reflect the agency's use of funds in prior years. NRC's annual formulation and execution of its budget is founded in the ability to accomplish the NRC's mission and accommodate projected workloads. Consistent with the GAO finding, the NRC plans to begin to include the prior year obligation data in subsequent budgets. As stated in the report, there is no requirement for reporting prior year use of funds in an agency's budget request.

Thank you again for the opportunity to provide comments on the GAO report. Please feel free to contact Mr. John Jolicoeur at (301) 415-1642 or [John.Jolicoeur@nrc.gov](mailto:John.Jolicoeur@nrc.gov) if you have questions or need additional information.

Sincerely,

A handwritten signature in black ink that reads "Victor M. McCree".

Victor M. McCree  
Executive Director  
for Operations

Enclosure:  
NRC comments on draft report  
GAO-17-294

**The U.S. Nuclear Regulatory Commission Comments on the U.S. Government  
Accountability Office Draft Report GAO-17-294, "Nuclear Regulatory Commission:  
Changes Planned to Budget Structure and Justification"**

The purpose of this enclosure is to provide technical comments and corrections to address specific statements included in the draft report. In the issues identified below, the Government Accountability Office (GAO) statement and the page and line number are specified, followed by the NRC response. We believe that the report would benefit from the consideration of the NRC responses and acknowledgment of any factual errors.

At the outset, the title of the report, "Changes Planned to Budget Structure and Justification," is inconsistent with the contents of the report, which provides the details of historical budget structure changes that have already been incorporated into the current budget structure.

GAO statement:

Page 1, lines 3 and 4. "... increased by about 59 percent and about 27 percent ..."

NRC response:

These percentages stated for fiscal year (FY) 2005 to FY 2010 cannot be validated and were not included in the prior draft Statement of Facts provided for NRC comment.

GAO statement:

Page 1, footnote 1, "In 2015 constant dollars, NRC's fiscal year 2005 budget authority was about \$804.5 million and its fiscal year 2010 budget authority was about \$1.2 billion."

NRC response:

The constant dollar amounts include no citation for the source, cannot be validated, and were not included in the prior draft Statement of Facts provided for NRC comment.

GAO statement:

Page 5, line 8, under *NRC Budget Structure*: "In addition, there is a business line called Corporate Support for agency-wide support activities, which include acquisitions, administrative services, financial management, human resource management, information management, information technology, *international activities*, outreach, policy support, and associated training and travel" (emphasis added).

NRC response:

Resources for international activities (IA) are included under Corporate Support in the description of the budget structure for FY 2017. Although IA was a corporate product line before the realignment, it is no longer in the realigned FY 2017 budget structure, so to be accurate "international activities" should be deleted from the sentence.

GAO statement:

Page 6, line under Figure 1, "The fiscal year 2017 budget request for NRC was \$970 million (see fig. 2)."

Enclosure

NRC response:

This stated budget amount does not include resources for the Office of the Inspector General (OIG), whereas other stated budget amounts on pages 1, 2, and 22 do include OIG resources. We recommend stating resource amounts consistently throughout the report, or noting when the amounts have not been stated consistently.

GAO statement:

Page 10, line 3 to line 9.

NRC response:

To provide consistency with figure 4, and the entirety of the internal budget process, the role of the Chairman and Commission in approving the budget proposal should be referenced.

GAO statement:

Page 11, Figure 4, the September 2015 line states "The Chief Financial Officer submitted budget to Office of Management and Budget (OMB)."

NRC response:

Under the NRC internal procedures, the Chairman submits the budget to OMB. This is stated on the bottom of page 12, which says the Chairman submits the budget to OMB. Figure 4 should be made consistent with the statement on page 12.

GAO statement:

Page 19, line 4, under *Mission Support activities* bullet: "... as with salaries and benefits, these items are reported as separate product lines under each business line in FAIMIS for budget."

NRC response:

The opening statements in this bullet correctly identify supervisory costs as mission indirect costs that were allocated to the business lines along with travel and training. However, the sentence included above is confusing based on two points, since supervisory resources are (1) a Product under the Support Staff Product Line (PL), not a separate PL like Travel and Training; and (2) supervisory resources are all full-time equivalent (FTE), so execution of these resources is not tracked in FAIMIS – FTE actuals are reported in the Human Resources Management System (carrier access codes).

GAO statement:

Page 22, line 17, "... requested overall budget for fiscal year 2017 was \$952 million."

NRC response:

The stated amount is not the *requested* amount, but is the re-baselined budget amount as the next sentence on page 23 explains.

**Jolicoeur, John**

---

**From:** Cain, Keya <(b)(6)>  
**Sent:** Wednesday, January 11, 2017 5:44 PM  
**To:** Jolicoeur, John; Lewis, Robert; Pham, Bo  
**Cc:** Rusco, Franklin; Benedict, Hilary M  
**Subject:** [External\_Sender] Draft GAO Report for NRC Comment (100725)  
**Attachments:** GAO-17-294 DRAFT REPORT FOR AGENCY COMMENT.pdf

January 11, 2017

Stephen G. Burns  
Chairman  
U.S. Nuclear Regulatory Commission

Dear Mr. Chairman:

(b)(5),(b)(6)

Sincerely yours,

[signed]

Frank Rusco  
Director, Natural Resources and Environment

Attachment

Page 406 of 537

Withheld pursuant to exemption

(b)(5)

of the Freedom of Information and Privacy Act

Page 407 of 537

Withheld pursuant to exemption

(b)(5)

of the Freedom of Information and Privacy Act

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Withheld pursuant to exemption

(b)(5)

of the Freedom of Information and Privacy Act



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of the Freedom of Information and Privacy Act



Page 433 of 537

Withheld pursuant to exemption

(b)(5)

of the Freedom of Information and Privacy Act

**Jolicoeur, John**

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**From:** GAO Reports (b)(6)  
**Sent:** Wednesday, March 08, 2017 1:19 PM  
**To:** (b)(6)  
**Cc:** (b)(6) Rusc6F@gao.gov; (b)(6)  
(b)(6)  
**Subject:** [External\_Sender] Issuance of GAO-17-294, Nuclear Regulatory Commission: Changes Planned to Budget Structure and Justification, 100725

GAO will release the following product to the public today. Until then, use the secure link below to access the product.

GAO-17-294

**Nuclear Regulatory Commission: Changes Planned to Budget Structure and Justification**

<http://www.gao.gov/prerelease/wccc>

**Frank Rusco**

**Director, Government Accountability Office: Natural Resources and Environment**

After public release later today, the following link should be used to obtain the product.

<http://www.gao.gov/products/GAO-17-294>

**Jolicœur, John**

---

**From:** GAO Reports (b)(6)  
**Sent:** Thursday, March 09, 2017 11:39 AM  
**To:** CHAIRMAN Resource: Jolicœur, John: keeva.scrivner@dot.gov  
**Cc:** (b)(6) OakleyS@gao.gov; (b)(6)  
(b)(6)  
**Subject:** [External\_Sender] Release of formerly restricted product: GAO-17-58, Radioactive Sources: Opportunities Exist for Federal Agencies to Strengthen Transportation Security, 361633

GAO will release the following previously restricted product to the public today. Until then, use the secure link below to access the product.

GAO-17-58

**Radioactive Sources: Opportunities Exist for Federal Agencies to Strengthen Transportation Security**

<http://www.gao.gov/prerelease/mBKG>

This report contains recommendations to your agency. As you know, 31 U.S.C. 720 requires the head of a federal agency to submit a written statement of the actions taken on our recommendations to the Senate Committee on Homeland Security and Governmental Affairs and to the House Committee on Oversight and Government Reform not later than 60 calendar days from the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 calendar days after that date. Since the congressional requester has asked that the distribution of the report be restricted, as provided by GAO's Congressional Protocols, the 60-day period begins on the date the report is released and e-mailed to you. Because agency personnel serve as the primary source of information on the status of recommendations, GAO requests that you also provide GAO with a copy of your agency's statement of action to serve as preliminary information on the status of open recommendations. Please send your statement of action to FEEHAN, DANIEL J. (b)(6) or to me at (oakleys@gao.gov).

We appreciate the assistance and cooperation of your staff during our review.

**Shelby S. Oakley**

**Director, Government Accountability Office: Natural Resources and Environment**

After public release later today, the following link should be used to obtain the product.

<http://www.gao.gov/products/GAO-17-58>



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

January 13, 2017

Shelby S. Oakley, Acting Director  
Natural Resources and Environment  
U.S. Government Accountability Office  
Room 2T23  
441 G Street, N.W.  
Washington, DC 20548

Dear Mr. Oakley:

Thank you for the opportunity to review and comment on the draft of the U.S. Government Accountability Office (GAO) Report - Radioactive Sources: Opportunities Exist for Federal Agencies to Strengthen Transportation Security (GAO-17-58). The U.S. Nuclear Regulatory Commission (NRC) staff is in general agreement with the overall content of the draft audit report. However, the NRC staff disagrees with the first recommendation as well as the wording of a related passage in the body of the draft report. Otherwise, the NRC staff agrees with the second recommendation and is not opposed to the third recommendation. NRC's specific concerns are summarized below and detailed in the enclosed comments.

The NRC staff disagrees with the draft report's first recommendation that collecting additional information in the NRC's National Source Tracking System (NSTS) on the number of shipments and mode of transport would improve the awareness of how risk-significant radioactive sources are transported within the United States and better determine whether the NRC is meeting its goal of providing reasonable assurance for preventing the theft or diversion of these dangerous materials. Following the terrorist attacks of September 11, 2001, the NRC took steps to strengthen the security of risk-significant radioactive materials, including addressing the potential vulnerabilities associated with the use and transport of these materials. The NRC implemented a number of measures in coordination with Federal and State agencies to ensure adequate protection of radioactive sources. The NSTS is only one of those measures. NSTS provides an accounting function for Category 1 and 2 sources following their manufacture, transfer, receipt, disassembly, or disposal. The NSTS, along with the rest of the NRC and the U.S. Department of Transportation (DOT) regulatory framework, provide reasonable assurance of the safety and security of radioactive material in transit. Therefore, the NRC staff does not believe that adopting this recommendation would result in improvements in safety or security. The enclosed NRC comments provide additional details.

On a related note, the NRC staff disagrees with the following statement in the draft report on pages 34 and 35:

Not having information on all shipments of risk-significant sources or the mode by which they were transported could, in certain situations, complicate NRC's efforts to secure risk-significant sources and thereby inhibit the agency's ability to meet its objective of providing reasonable assurance of preventing their theft or diversion.

NRC licensees possessing an aggregated Category 1 or Category 2 quantity of radioactive material are required to comply with NRC's Title 10 of the *Code of Federal Regulations* (10 CFR) Part 37. The NRC verifies licensee compliance with requirements through its oversight program. This enables the NRC to meet its objective of providing reasonable assurance of safety and security of radioactive materials consistent with its mission. The NRC believes that the specific situation cited by GAO in support of this statement is not an issue that is solved by collecting post-shipment information, but is instead best addressed by appropriate coordination between the NRC and DOT, as indicated by GAO's second recommendation, with which we agree. Therefore, the NRC suggests that GAO consider deleting or editing this statement. Additional details are provided in the enclosure.

As mentioned above, the NRC agrees with the report's second recommendation that the NRC should, working in consultation with the U.S. Department of Homeland Security and with the DOT, identify an approach to verify that motor carriers are meeting Part 37 security requirements applicable to transportation.

Recognizing that highway route controlled quantities (HRCQ) thresholds are within DOT's jurisdiction, NRC is willing to explore with DOT staff the draft report's third recommendation that the NRC should consider examining the potential costs and security benefits associated with lowering the HRCQ threshold such that more or all Category 1 shipments are classified as HRCQ shipments.

If you have any questions regarding the NRC's response, please contact John R. Jolicoeur by phone at 301-415-1642 or by email at [John.Jolicoeur@nrc.gov](mailto:John.Jolicoeur@nrc.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Victor M. McCree", with a long horizontal line extending to the right.

Victor M. McCree  
Executive Director  
for Operations

Enclosure:  
As stated

**U.S. Nuclear Regulatory Commission Comments on (GAO-17-58), "Radioactive Sources: Opportunities Exist for Federal Agencies to Strengthen Transportation Security"**

The U.S. Nuclear Regulatory Commission (NRC) staff's comments on the draft report, for the Government Accountability Office's (GAO's) consideration, are as follows:

**A. Significant issues:**

The draft report included three recommendations. The NRC staff disagrees with the first recommendation, agrees with the second recommendation, and is not opposed to the third recommendation. Because the NRC staff has no significant issues with the second or third recommendation, they are not discussed in this section.

This section provides comments on the first recommendation, which stated:

*1. To improve the awareness of how risk-significant active sources are transported within the United States and to better determine whether it is meeting its goal of providing reasonable assurance for preventing the theft or diversion of these dangerous materials, we recommend that the Chairman of the Nuclear Regulatory Commission take actions to collect information from licensees on the number of shipments and mode of transport for such sources for inclusion in NRC's [National Source Tracking System] NSTS.*

Based on their assessment last year of the effectiveness of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 37, the NRC staff is confident that the security requirements in this regulation provide reasonable assurance of adequate protection of this material. Therefore, we disagree with this recommendation. Following the terrorist attacks of September 11, 2001, the NRC took steps to strengthen the security of risk-significant radioactive materials, including addressing the potential vulnerabilities associated with the use and transport of these materials. The NRC implemented a number of measures in coordination with Federal and State agencies to ensure adequate protection of radioactive sources. The NSTS is just one of those measures. NSTS provides an accounting function for Category 1 and 2 sources with respect to their manufacture, transfer, receipt, disassembly, or disposal. To provide background for the basis of the NRC staff's disagreement, the following framework for transactions and shipments involving Category 1 and 2 sources is provided:

- Accounting for the number of shipments and mode of transport (road, rail, etc.) for Category 1 and 2 source transfers in NSTS would not provide any information that could be used to prevent the theft or diversion of Category 1 and 2 materials.
- Licensees are required to report some source shipment information in NSTS for Category 1 and 2 source transfers, including the shipping date and estimated date of arrival. For waste shipments, the waste manifest number and the container identification must be recorded in NSTS. The reporting of this information is all done post-shipment.

Enclosure

- Due to the sensitivity of the information, NSTS is not the appropriate system to track the mode of transport and shipment information for transfers of Category 1 and 2 sources, nor was it designed to track such information. If this information were to be tracked in NSTS, a new security categorization evaluation would need to be performed, and it is likely that the results would necessitate designation of a higher security categorization for the system. This would result in challenges in a number of areas, such as measures needed to provide licensees with access to the system.
- The NRC established the requirements for the NSTS through a notice and comment rulemaking and in close coordination with other Federal and State agencies involved with the safety and security of radiation sources and transportation of hazardous materials. The rulemaking process considered a broad range of comments and suggestions (71 FR 65686; November 8, 2006). Imposing a requirement for licensees to provide information in the NSTS on the mode of transport and shipment information for each source would require rulemaking. Such a rule is not likely to result in significant improvements in safety or security that would form a basis to justify a rulemaking and the additional reporting and recordkeeping burden.
- As required by 10 CFR 20.2207, licensees must report transactions involving Category 1 and 2 sources no later than the close of business the day after a source transaction occurs. Transactions include the manufacture, transfer, receipt, disassembly, or disposal of sources.
- In accordance with 10 CFR 37.77, licensees must provide advance notification of shipments containing a Category 1 quantity of material to the NRC (and the governor of any State through which the transport travels). This report must include information related to the material being transported, shipper and receiver, and anticipated departure and arrival times. The report must also provide a point of contact for obtaining current information on the shipment.
  - The "RAMQC" database is maintained by NRC to track advance notifications of Category 1 shipments.
  - The RAMQC database is not accessible by licensees or other outside entities. NRC provides reports from the RAMQC database to other Federal agencies, as appropriate (e.g., Customs and Border Protection) to assist them in verifying the secure, legitimate transport of hazardous materials in the United States.
- NRC has Memorandums of Understanding (MOUs) with the Department of Homeland Security and the Department of Transportation to ensure appropriate regulatory oversight of radioactive material shipments.
- The NRC currently requires licensees to comply with specific security measures under 10 CFR 37.79 for shipments by road or rail. For example:
  - For Category 1 shipments by road: Licensees or carriers must use movement control centers to maintain position information from a remote location, establish redundant communications that allow the transport to contact the escort vehicle

(when used), and movement control center at all times; use telemetric positioning systems to continuously monitor shipments; provide a second individual to accompany the driver for "long drive time" shipments; and have procedures for normal and contingency situations (including responding to actual or attempted theft or diversion of a shipment).

- For Category 2 shipments by road: Licensees must maintain constant control and/or surveillance during transit and have the capability for immediate communication to summon appropriate response or assistance. Alternately, licensees may use carriers with established package tracking systems that maintain constant control/surveillance during transit and have the capability to summon local law enforcement agencies.

The NRC staff also suggests that using the term "radioactive sources" instead of "active sources" in the first sentence of this recommendation may make the intent of the statement more clear

In addition, NRC staff disagrees with the following statement included in the draft report on pages 34 and 35:

*Not having information on all shipments of risk-significant sources or the mode by which they were transported could, in certain situations, complicate NRC's efforts to secure risk-significant sources and thereby inhibit the agency's ability to meet its objective of providing reasonable assurance of preventing their theft or diversion.*

NRC licensees possessing an aggregated Category 1 or Category 2 quantity of radioactive material are required to comply with Part 37. The NRC verifies licensee compliance with requirements through its oversight program. This enables the NRC to meet its objective of providing reasonable assurance of safety and security of radioactive materials consistent with its mission. The NRC staff believes that the specific situation cited by GAO in support of this statement is not an issue that is solved by collecting post-shipment information, but is instead best addressed by ensuring compliance with existing regulations through appropriate coordination between the NRC and DOT. Therefore, the NRC suggests that GAO consider deleting or editing this statement

The NRC staff is confident that the security requirements in 10 CFR Part 37 are adequate to protect against theft, sabotage, or diversion. We do not believe that adopting this recommendation would result in significant improvements in safety and security. This conclusion is supported by the NRC staff's recent assessment, which concluded that the regulation is effective in achieving its objective of "providing reasonable assurance of the security of Category 1 or 2 quantities of radioactive material by protecting these materials from theft or diversion."

**B. Minor comments:**

1. Inside cover page, gray left hand column, revise or provide clarifying language to the final sentence/statement in the sentence above "What GAO Recommends."



**Comment:** The current statement ends with "... and two manufacturers identified as the largest."

**Explanation:** For clarity and consistency, consider adding language similar to that found on page 6 related to "largest manufacturers."

2. Inside cover page, figure includes the text "Pipelines and Hazardous Materials Safety Administration."

**Comment:** The correct name is "Pipeline and Hazardous Materials Safety Administration."

3. Cover page and page 4, Figure 1 provides the regulatory authority for transit of radioactive sources.

**Comment:** The figure should be clarified, either as a footnote or by expanding the NRC regulatory authority banner, to acknowledge that there are NRC security requirements/regulations (10 CFR Part 37, Subpart D) for the in-transit portion of ground transportation.

**Explanation:** 10 CFR Part 37, Subpart D, requires security for the in-transit portion of movement by both road and rail. The NRC also regulates transportation by private carriers (e.g., licensees transporting a source in their own vehicle).

4. Page 2, footnote 1, and identically stated on page 8, footnote 14:

**Comment:** The NRC recommends the following changes: *A radionuclide is an unstable, radiation-emitting nuclide. A nuclide is particular atomic form of an element distinguished from other nuclides by its number of neutrons and protons, as well as by the amount of energy it contains by its energy states.*

**Explanation:** Nuclides are correctly defined using energy state rather than amount of energy.

5. Page 3 states:

"NRC data indicates that from January 2010 through September 2015, there were 14 incidents involving 23 risk-significant sources that were reported lost or stolen during transport in the United States. Of these, 22 sources were found within the same day, and 1 was found 5 days after it was declared missing."

**Comment:** Consider (1) clarifying text to identify that these reports include lost, missing, or stolen sources and (2) adding a footnote to clarify that "lost or missing" sources includes sources in shipment that are not received by their expected arrival time.

**Explanation:** The reporting criteria for radioactive material require reports to be made when a package fails to arrive at the designated time identified by the shipper. As stated

in NUREG-2155, "Implementation Guidance for 10 CFR Part 37, 'Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material': *Lost or missing licensed material means licensed material whose location is unknown. It includes material that has been shipped but has not reached its destination and whose location cannot be readily traced in the transportation system.* The clarification is needed to provide context with respect to the transport events noted in the quoted text because without the clarification, the reader may be left with the impression that these sources were lost rather than being in the shipping company's possession and delayed in transit. Additionally, these shipping incidents represent a relatively small amount of the approximately 36,000 transfers of Category 1 and Category 2 sources in the United States each year.

6. Page 4 states:

"In 2006, an NRC-led task force on radioactive source security evaluated Federal transport programs for radioactive materials, including risk-significant sources, and concluded that safety regulations provided a "level of protection" from the security risks associated with the transport of these materials."

**Comment:** Recommend also identifying supporting language from the 2006 Task Force report, which states that "The safety regulations are widely implemented, and the level of compliance is high."

7. Page 6, the sentence after footnote 12 states:

"... representatives with responsibility of the security of radioactive sources ...".

**Comment:** Recommend changing "responsibility of the security" to "responsibility for the security."

8. Page 9, Table 1 provides thresholds for classifying quantities of radionuclides as Category 1 and 2.

**Comment:** Table 1 is from 10 CFR Part 37. Recommend including the NSTS table in Part 20 Appendix E, which contains different nuclides.

**Explanation:** Based on the context of pages 8-9 of the draft report, Table 1 should contain the NSTS table in Part 20 Appendix E.

9. Page 11, footnote 22 includes reference to 49 CFR 173.411.

**Comment:** Within the stated footnote 22, remove "173.411", as this reference is for Industrial packages (i.e., IP-1, IP-2, and IP-3).

**Explanation:** 49 CFR 173.411, "Industrial packages", are unrelated to Type A packages. The other references in this footnote adequately support the discussion related to Type A packages.

10. Page 12 states that:

*GAO states "There is no limit on the transport index for a vehicle used exclusively to transport packages of radioactive material."*

**Comment:** This statement may be misleading; consider providing clarity.

**Explanation:** While technically correct, the transport index is a measure for non-exclusive use transport. Exclusive use vehicles have radiation limits established for the safe transport of packages. The way the language currently reads, it implies that the public may be exposed to excessive amounts of radiation.

11. Page 12, the bullet related to Highway Route Controlled Quantity (HRCQ) includes a statement, "Shipments of radioactive material that meet or exceed this threshold are defined as HRCQ."

**Comment:** In 49 CFR 173.403, the definition of HRCQ indicates "A quantity within a single package *which exceeds* ..." Recommend revising this statement to reflect the Department of Transportation (DOT) definition.

**Explanation:** The HRCQ definition does not indicate "equals or exceeds." Thus, revising this statement to read "Shipments of radioactive material that exceed this threshold are defined as HRCQ" will make the statement accurate to reflect the current regulations.

12. Page 14, footnote 35, provides language related to transuranic waste:

**Comment:** Recommend providing definition of transuranic waste.

**Explanation:** Transuranic waste is defined in NRC Glossary (<http://www.nrc.gov/reading-rm/basic-ref/glossary/transuranic-waste.html>).

"Material contaminated with transuranic elements - artificially made, radioactive elements, such as neptunium, plutonium, americium, and others -that have atomic numbers higher than uranium in the periodic table of elements."

13. Page 16, footnote 40, is related to fissile materials:

**Comment:** Recommend the footnote be deleted.

**Explanation:** The term "fissile" is not included in the draft report.

14. Page 17, last paragraph, the report states, "...adopt measures to ensure the physical protection of such sources during their use and transport via motor carrier or rail."

**Comment:** Consider changing sentence to read: "...physical protection of such sources during transport."

**Explanation:** The language would encompass both road and rail modes, which 10 CFR Part 37, Subpart D addresses.

15. Page 18, includes a paragraph that begins: "In addition, NRC Part 37..." includes a sentence "Specifically, licensees shipping Category 1 quantities must..."

**Comment:** Recommend changing to read: "Specifically, licensees shipping Category 1 quantities of radioactive sources *by road* must..."

**Explanation:** Regulations described here are those necessary for road shipments – not necessarily for rail shipments.

16. Page 19, at the top of the page, provides requirements for the shipment of Category 2 quantities of radioactive sources:

**Comment:** Recommend including the third requirement and ordering the requirements as follows:

- Use carriers that have established package tracking systems. An established package tracking system is a documented, proven, and reliable system routinely used to transport objects of value. In order for a package tracking system to maintain constant control and/or surveillance, the package tracking system must allow the shipper or transporter to identify when and where the package was last and when it should arrive at the next point of control;
- Use carriers that maintain constant control and/or surveillance during transit and have the capability for immediate communication to summon appropriate response or assistance; and
- Use carriers that have established tracking systems that require an authorized signature prior to releasing the package for delivery or return.

**Explanation:** The draft report cites two requirements for the shipment of Category 2 quantities of radioactive sources, but the regulations have three requirements.

17. Page 18 states that "provide an individual – such as a second driver – to accompany the primary driver for shipments with a long drive time."

**Comment:** To clarify "long drive time" and to provide reference to established thresholds that would require use of an additional individual to accompany the primary driver, suggest changing to "provide an individual – such as a second driver – to accompany the primary driver for shipments exceeding the maximum number of driving service hours as established by the Federal Motor Carrier Safety Administration (FMCSA)."

**Explanation:** The regulation in 10 CFR 37.79(a)(iv) specifies the need to provide an individual to accompany the driver for highway shipments with a driving time period

greater than the maximum number of allowable hours of service in a 24-hour duty day as established by the FMCSA

18. Page 19 states that "In response to IAEA guidance in its Code of Conduct and agency requirements in the Energy Policy Act of 2005, the NRC implemented the NSTS."

**Comment:** Recommend revising the sentence to read: "In response to IAEA guidance in its Code of Conduct and agency requirements in the Energy Policy Act of 2005, the NRC implemented the NSTS."

**Explanation:** The Energy Policy Act is a law, not an NRC requirement.

19. Page 20 states that "Transaction reports include information, such as shipping and receiving licensee numbers, the radioactive material in the source, and the radioactivity level of the source being transferred."

**Comment:** Suggest changing the word "radioactivity" to "activity".

**Explanation:** Provides more accurate terminology.

20. Page 20, the main paragraph, includes the term "RAMQC" several times.

**Comment:** Recommend using "RAMQC database."

**Explanation:** The clarity of the second sentence in this paragraph may be improved by revising the sentence to read "... the original purpose of the RAMQC database was to have ...". This revision could also be made in other similar phrases in this same paragraph.

21. Page 20 states that "Applicants for licenses and current authorized licensees can use the web-based licensing (WBL) to apply for licenses and initiate other license-related actions."

**Comment:** Suggest deleting this sentence.

**Explanation:** The functionality for applicants and licensees to use WBL to initiate license-related activities is currently not active. Although the NRC is working toward offering this functionality for the future, applications for new licenses or amendments to existing licenses are currently submitted to NRC via mail, fax, or email.

22. Page 28 second paragraph, fourth sentence, and page 29 first paragraph, second line, in part needs to be updated to reflect the 2015 Memorandum of Understanding (MOU) activities related to the secure transport of radioactive materials signed by the NRC, DOT and the Department of Homeland Security (DHS).

**Comment:** For clarity the NRC suggests the following edits in the statements.

Page 28:

~~"... An enclosure to the~~ The MOU states that agencies will promote coordination among themselves and their component agencies regarding inspection and

~~enforcement activities, with the objective of optimizing available resources and maximizing communications on areas of mutual interest~~ address twelve topical areas of coordination and collaboration. The MOU also specified that the agencies will establish the working arrangements between the NRC and the relevant component agencies within DOT and DHS in order to implement the MOU provisions."

For clarity the NRC suggests the following edits in the statements.

Page 29:

"...In January 2016, the working group presented a draft multi-year action plan that included how to address the 12 topical areas described in the MOU..."

**Explanation:** The proposed changes to the draft report are intended to reflect the current status of the MOU and the interagency efforts to coordinate activities and share information between their relevant component agencies.

23. Pg. 33, penultimate sentence:

**Comment:** Suggest inserting "sometimes" or "on occasion" before "another".

**Explanation:** The draft report states that other Federal agencies perform inspections on our behalf. While this may be true in specific situations, the sentence is written very broadly and could be interpreted as meaning we always transfer our inspection responsibilities.

24. Pg. 34, middle of paragraph contains language regarding the RAMQC database:

**Comment:** The draft report mentions the RAMQC database and in discussing it, states that "NRC requires licensees to provide advance notification for shipments of Category 1 sources, including the mode by which sources are transported." Recommend changing to "NRC collects information including the information that would indicate the mode of transport".

**Explanation:** NRC regulations do not require the collection of mode of transportation. However, in practice, mode and routing are two items of information collected during daily database formulation that indicate the mode of transport for the shipments listed in the RAMQC database.

25. Appendix II provides a table that presents the NRC's requirements for Category 1 and 2 material in transport:

**Comment:** The NRC staff has three recommendations for this table: (1) revise the table to include all requirements as well as a delineation between those for road and rail; (2) remove or edit the statement that written reports are required for suspicious activity; and (3) delete sentence 2 of footnote (b).

**Explanation:** (1) Throughout the table, there is no distinction between the items that are for road transport as opposed to rail transport. Also, although the table identifies some of the requirements for road transport, it does not include them all. (2) The table in

Appendix II states that written reports are required for suspicious activity. In accordance with 10 CFR 37.61(g), such reports are not required. (3) Footnote (b) is potentially misleading. The text in the right-hand column of the table under "During shipment" adequately describes the difference between licensee transport, and motor carrier transport.

#### **Administrative Comments**

1. Table 1 provides radionuclides of concerns and thresholds in terabecquerels (see comment 10 from previous section, which recommends including the table from part 20 Appendix E instead; if GAO keeps this table, please see below):

**Comment:** Recommend adding the curie values to the table as the caption mentions the conversions of terabecquerels to curies.

**Explanation:** Although the NRC regulatory standard is given in terabecquerels, for convenience, the NRC also provides the curie values in its regulations (10 CFR Part 37).

2. Page 34, footnote 71 states that "According to NRC officials, the Canadian licensee the sole NRC licensee outside the United States..."

**Comment:** Recommend inserting the word "is," so the sentence will read: "According to NRC officials, the Canadian licensee is the sole NRC licensee outside the United States..."

3. Page 36 states "This information may give NRC greater confidence that is achieving its goal of having reasonable assurance of preventing theft or diversion of these sources."

**Comment:** Recommend inserting the word "it," so the sentence will read: "This information may give NRC greater confidence that it is achieving its goal of having reasonable assurance of preventing theft or diversion of these sources."

4. Page 11, footnote 23 uses "A1 or A2" in a statement.

**Comment:** Suggest deleting these, and replace with "A<sub>1</sub> or A<sub>2</sub>". That is, show the numeral following "A" as sub-script.

**Explanation:** This change supports the standard format for how these quantities are represented in both 10 CFR and 49 CFR.

**Jolicoeur, John**

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**From:** Hundrup, Wyatt R (b)(6)  
**Sent:** Thursday, March 02, 2017 1:03 PM  
**To:** Jolicoeur, John  
**Subject:** [External\_Sender] FW: Release of formerly restricted product: GAO-17-232

John,

Below is the letter that went to [chairman@nrc.gov](mailto:chairman@nrc.gov), which has the lingo about responding to recommendations. I'm not sure why you were not CC'ed on this, so I'm glad you checked.

BTW, it is also posted on our public website: <http://www.gao.gov/products/GAO-17-232>

Cheers,  
Wyatt

**From:** GAOREports  
**Sent:** Thursday, March 02, 2017 9:00 AM  
**To:** [Chairman@nrc.gov](mailto:Chairman@nrc.gov)  
**Cc:** Hundrup, Wyatt R; Rusco, Franklin; Benedict, Hilary M; Hockaday, (b)(6)  
**Subject:** Release of formerly restricted product: GAO-17-232, Nuclear Regulatory Commission: Regulatory Fee-Setting Calculations Need Greater Transparency, 100450

GAO will release the following previously restricted product to the public today. Until then, use the secure link below to access the product.

GAO-17-232

**Nuclear Regulatory Commission: Regulatory Fee-Setting Calculations Need Greater Transparency**

<http://www.gao.gov/prerelease/K86p>

This report contains recommendations to your agency. As you know, 31 U.S.C. 720 requires the head of a federal agency to submit a written statement of the actions taken on our recommendations to the Senate Committee on Homeland Security and Governmental Affairs and to the House Committee on Oversight and Government Reform not later than 60 calendar days from the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 calendar days after that date. Since the congressional requester has asked that the distribution of the report be restricted, as provided by GAO's Congressional Protocols, the 60-day period begins on the date the report is released and e-mailed to you. Because agency personnel serve as the primary source of information on the status of recommendations, GAO requests that you also provide GAO with a copy of your agency's statement of action to serve as preliminary information on the status of open recommendations. Please send your statement of action to BENEDICT, HILARY M (b)(6) or to me at ([ruscof@gao.gov](mailto:ruscof@gao.gov)).

We appreciate the assistance and cooperation of your staff during our review.





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

January 17, 2017

Mr. Frank Rusco  
Director, Natural Resources and Environment  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20226

Dear Mr. Rusco:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your e-mail dated December 14, 2016, requesting comments on the U.S. Government Accountability Office (GAO) draft report GAO-17-232, "Nuclear Regulatory Commission: Regulatory Fee-Setting Calculations Need Greater Transparency."

The NRC generally agrees with the GAO's recommendations that the NRC could enhance the transparency of NRC's regulatory user fees, noting that improvement activities are in progress. These efforts were discussed with GAO and are described below, and in the enclosure in greater detail.

GAO recommendations:

"To enhance the transparency of NRC's regulatory user fees, we recommend that the Chairman of the NRC take the following two actions:

- 1) Clearly present information in its proposed fee rule, final fee rule and fee work papers that stakeholders need to understand fee calculations and provide substantive comments to the agency by defining and consistently using key terms, provide complete calculations for how fees are determined, and correcting errors.
- 2) Develop (1) performance goals and measures to assess the extent to which its efforts under Project Aim create greater transparency regarding NRC's fee calculations and improves the timeliness with which NRC communicates fee changes so that they are objective, measurable, and quantifiable, and (2) develop and implement a plan and schedule for comparing results with the established performance goals."

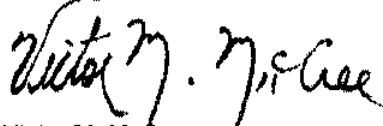
NRC response:

As a result of Project Aim, the NRC has committed to implementing improvements to enhance the agency's ability to plan and execute its mission while adapting in a timely and effective manner to a dynamic environment. As part of this initiative, the NRC analyzed its fee setting process to improve transparency, timeliness and equitability for our stakeholders. We developed numerous improvements that are scheduled to be implemented over the next few years, as practicable. Starting in fiscal year 2017, the agency will implement changes to the proposed and final fee rule, related work papers, public NRC license fee website, project manager outreach to licensee activities, and the Congressional Budget Justification that will

enhance transparency for stakeholders. To enhance timeliness for communicating fee changes, we are planning to publish the proposed fee rule earlier than in previous years. To enhance transparency, we are beginning the analysis to support changes to fee setting to enhance equitability, and invoicing. In addition, the NRC has established goals to support the improvement of the fee setting process, and developed output level metrics to measure whether the improvements to the fee setting process have been achieved. We constantly strive to improve the transparency, timeliness, and equitability of our fee setting process and look forward to using GAO's insights to enhance our ongoing improvement efforts.

The NRC appreciates the opportunity to provide its planned activities to address the recommendations provided in the GAO report. Please feel free to contact Mr. John Jolicoeur at (301) 415-1642 or [John.Jolicoeur@nrc.gov](mailto:John.Jolicoeur@nrc.gov) if you have questions or need additional information.

Sincerely,

A handwritten signature in black ink that reads "Victor M. McCree". The signature is fluid and cursive, with the first name being the most prominent.

Victor M. McCree  
Executive Director for Operations

Enclosure:  
NRC comments on GAO report

**Nuclear Regulatory Commission Comments on the U.S. Government Accountability  
Office Draft Report GAO-17-232, "Nuclear Regulatory Commission: Regulatory Fee-  
Setting Calculations Need Greater Transparency"**

The purpose of this enclosure is to provide additional information to address specific issues raised in the draft report. In the discussion below, the underlined text reflects statements or topics raised by GAO on the pages noted. The following text provides amplifying information about actions taken or underway to address these issues. We believe that the report would benefit from the acknowledgment of these ongoing activities and the fact that these efforts were in process under Project Aim prior to the initiation of the GAO audit.

NRC's Regulatory User Fees Are Based on Its Expected Regulatory Activities and Budget Authority (page 15)

At the bottom of page 10, the draft report cites "legal support" as an example of Agency Support Resources. While there are some legal support resources that are considered "broadly supporting" resources, the majority of legal support resources are included within the programs they support. Better examples of Agency Support are resources associated with the Office of the Inspector General, human resources, financial management, procurement/acquisitions, the Office of the Commission, etc.

NRC's Fiscal Year 2016 Fee Rule Did Not Fully Explain Its Fee Calculations (page 15)

Each year the NRC staff strives to fully explain the basis for the fee calculation. The agency has made progress and plans to continue to improve. In the fiscal year (FY) 2017 proposed and final fee rule, the Nuclear Regulatory Commission (NRC) will define all key terms related to the hourly rate calculation and use them consistently throughout the document. In addition, the fee rule workpapers will include the calculation of mission-direct full-time equivalent productive hours.

Industry Stakeholders Identified Several Challenges with NRC's Fee-Setting Process, Some of which NRC Plans to Address (page 17)

Based on comments received from the public and staff, NRC developed a list of more than 50 improvement options that address concerns with the current fee process. Over 40 of these improvements were then prioritized using the following criteria: (a) transparency—help stakeholders understand the NRC fee setting process, (b) timeliness—enable the NRC to publish its fee rule earlier than in previous years, and (c) equitability—calculate NRC fees based on allocating NRC costs fairly among all its licensees.

1) Transparency (page 17)

The NRC will be implementing a number of improvements to enhance transparency for stakeholders. Starting in FY 2017, the agency will implement changes to the proposed and final fee rule or workpapers to include definitions for key terms to support the hourly rate calculation, definitions for international activities that are subject to fee relief, a discussion of the new fee class for small modular reactors, drivers that impact an NRC business line budget, and fees collected data from the previous fiscal year. In the Congressional Budget Justification, the NRC will include analysis of planned workload,

Enclosure

including planned rulemaking, and the associated budgeted resources. The NRC public license fees website will be enhanced to provide more information or links to information that support fee setting, including fee rules, work papers (posted in an Excel format), a fee setting blog, and frequently asked questions on fee setting. In addition, the agency will begin developing a strategy to include a breakdown between budgeted resources that support fees for service and annual fees, and a comparison between formulated and executed budgetary resources.

## 2) Fairness (page 18)

The NRC considers the amount of licensing actions and the types of licensing actions expected during the upcoming year when allocating resources and creating the related budget. Rather than risk-significance, the NRC develops budgetary resource needs based on the technical complexity of the licensing action. Although the agency does not necessarily budget for or expend additional resources on risk-significant licensing actions, risk-significant licensing actions are prioritized ahead of less significant activities if there are competing resources.

OBRA-90 requires the NRC to collect approximately 90 percent of our budget through fees. If a licensee leaves the fee class during the fiscal year, the NRC is still required to collect the necessary budget authority for that year. Going forward, as workload decreases, budgetary resource needs will decrease, and fees will decrease.

The NRC will be implementing a number of improvements to enhance equitability for licensees paying fees. Starting in FY 2017, the agency will begin to analyze activities executed by staff that are currently billed to licensees as fees for service, and make a determination if additional activities should also be included. The NRC will then train staff accordingly on new activities to be charged to billable projects to ensure accuracy. In addition, the NRC will begin the analysis to support proposing policy changes for Commission consideration in future years, such as: changes to fee classes and fee categories to enhance equitability by either combining fee classes or categories into one, or adding new classes or categories to the existing schedule, aligning with the Small Business Administration's definitions for small entities, billing vendors for inspections, developing a new fee class to charge annual fees to cover new reactor budgetary resources included in the fee base, developing a new strategy for charging for whitepaper reviews, charging annual fees to applicants regardless of construction phase, developing two hourly rates depending on work performed, and deciding on whether to allow more than one site on one license.

## 3) Timeliness and Predictability (page 19)

Within our statutory framework, the agency is committed to accelerating the publication of the proposed and final fee rules to help licensees budget for expenses. To support this acceleration, the NRC has developed a strategy to decide on a resource level upon which to base the fee rule earlier in the year, and a new process for estimating the fiscal year's collection of fees for service. In addition the NRC will conduct a pilot to explore flat fees for uranium recovery licensees. To enhance predictability, the NRC will conduct outreach efforts to licensees to include posting estimates of licensing actions and other services on the public website, developing procedures to communicate project status and running cost totals for on-going projects, and developing procedures to provide detailed explanations of work performed by contractors.

#### 4) Billing (page 21)

Mindful of our current budgetary environment of reduced resources, the NRC is currently developing a strategy to support enhancements to invoicing licensees, such as developing upgraded system interfaces to reduce billing errors, providing more detail on invoices, and exploring opportunities for introducing electronic invoicing which could give the licensees additional time to make their payments as required by statute.

#### 5) Workload and Workforce (page 22)

The NRC has made significant progress to streamline operations and reduce budgetary needs, under the Project Aim initiative. The Omnibus Budget Reconciliation Act of 1990 (OBRA-90) requires the agency to collect approximately 90 percent of its budget authority through fees by the end of that particular year. Budgetary authority request is based, in part, on planned workload estimates from licensees. Given the current environment, NRC's costs to regulate are appropriate.

The NRC agrees that in the past few years nuclear power plant licensing actions were delayed due to the redirecting of staff to support the implementation of recommendations identified as a result of the events at the Fukushima Dai-ichi nuclear power plant. At that time, the NRC actively assessed and redefined priorities and ensured that actions taken in response to Fukushima lessons-learned did not displace ongoing work that had greater safety benefit, work that was necessary for continued safe operation, or other existing high-priority work. Additionally, the NRC placed increased emphasis on communications with licensees in order to foster a common awareness of project schedule expectations, as it related to safety significance and operational needs.

The NRC's congressionally reported timeliness metrics are to complete 95 percent of submitted licensing reviews within 1 year and 100 percent within 2 years, unless the reviews meet specific exclusion criteria (e.g., license renewals, improved standard technical specifications conversions, power uprates, and unusually complex actions). Initially, the redirecting of staff to address Fukushima lessons-learned resulted in a significant increase in the volume of nuclear power plant licensing reviews requiring greater than 1 year to complete (i.e., the backlog). However, through the normalizing of the Fukushima workload and implementation of staffing and process changes, the NRC has since made significant improvements in the timeliness of completing licensing reviews, including reducing the backlog to a historically low level.

In addition to the measures discussed above that contributed to the successful reduction of the licensing backlog, the NRC also implemented items associated with Project Aim and increased communications with the industry regarding future planned licensing action submittals. Along with these efforts, NRC management has placed additional emphasis with the staff regarding several key aspects of licensing reviews for which the industry also plays a key role in supporting the efficiency and effectiveness of future licensing reviews.

NRC is Taking Steps to Increase Transparency and Stakeholder Understanding of its Fee-Setting Process, but its Plans are Incomplete (page 23)

The NRC has established goals to improve the fee setting process, specifically, increasing transparency, timeliness and equitability for stakeholders. Currently, NRC has developed output level metrics to measure whether the improvements to the fee setting process have been achieved. The agency is considering other metrics to measure stakeholder satisfaction with the improvements implemented. In addition, the NRC has established a Steering Committee that will direct the analysis and implementation of planned improvement activities and monitor progress against established metrics.

Figure 4 on page 13, appears to omit regulation of new reactors.

**Jolicoeur, John**

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**From:** GAO Reports <(b)(6)>  
**Sent:** Tuesday, February 07, 2017 10:26 AM  
**To:** (b)(6)  
**Cc:** (b)(6)  
**Subject:** [External\_Sender] Issuance of GAO-17-182, Critical Infrastructure Protection: Additional Actions by DHS Could Help Identify Opportunities to Harmonize Access Control Efforts, 100547

GAO will release the following product to the public today. Until then, use the secure link below to access the product.

GAO-17-182

**Critical Infrastructure Protection: Additional Actions by DHS Could Help Identify Opportunities to Harmonize Access Control Efforts**

<http://www.gao.gov/prerelease/dvvB>

**Chris P. Currie**

**Director, Government Accountability Office: Homeland Security and Justice**

After public release later today, the following link should be used to obtain the product.

<http://www.gao.gov/products/GAO-17-182>



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

January 6, 2017

Ms. Kathryn E. Godfrey, Assistant Director  
Homeland Security and Justice  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20548

Dear Ms. Godfrey:

Thank you for providing the U.S. Nuclear Regulatory Commission (NRC) with the opportunity to review and comment on the U.S. Government Accountability Office's (GAO's) draft report GAO-17-182, "Critical Infrastructure Protection: Additional Actions by DHS Could Help Identify Opportunities to Harmonize Access Control Efforts." The NRC has reviewed the draft report and finds that it accurately reflects the NRC's access control efforts, which require each commercial nuclear power plant licensee to establish, implement, and maintain an access authorization program, including the provision of unescorted access, in accordance with NRC regulations in order to protect against acts of radiological sabotage.

If you have any questions regarding the NRC's response, please contact Mr. John Jolicoeur by phone at (301) 415-1642 or by email at [John.Jolicoeur@nrc.gov](mailto:John.Jolicoeur@nrc.gov)

Sincerely,

A handwritten signature in black ink that reads "Victor M. McCree". The signature is written in a cursive style with a large, sweeping "V" and "M".

Victor M. McCree  
Executive Director  
for Operations

cc: Chris Currie, GAO



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**Jolicoeur, John**

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**From:** Jolicoeur, John  
**Sent:** Friday, March 17, 2017 12:03 PM  
**To:** 'Ingram, Miles J'; Guffy, Barbara A  
**Cc:** Harmond, Michael H  
**Subject:** RE: RE: RE: RE: RE: GAO Engagement Notification 100893  
**Attachments:** Supporting Docs 100893.zip; GAO Questions Electromagnetic Event FINAL.docx

Miles:

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**From:** [Kohen, Marshall](#)  
**To:** [Jolicœur, John](#); [Bowen, Jeremy](#)  
**Cc:** [RidsNslrMailCenter.Resource](#); [Kris, Barbara](#); [Andersen, James](#); [Vitto, Steven](#); [St. Amour, Norman](#)  
**Subject:** GAO Electromagnetic Event Preparedness (100893) Entrance with Nuclear Regulatory Commission (NRC)  
**Date:** Wednesday, March 15, 2017 1:00:51 PM

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John/Jeremy,

(b)(5)

*Marshall Kohen  
Technical Assistant  
Office of Nuclear Security and Incident Response  
US NRC  
301-287-3689*



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U.S. GOVERNMENT ACCOUNTABILITY OFFICE

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**Federal Risk and Authorization Management Program (FedRAMP) Implementation**

**Job code: 101221**

**NRC Entrance Conference**

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## Entrance Conference Questions

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U.S. GOVERNMENT ACCOUNTABILITY OFFICE

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**Federal Risk and Authorization Management Program (FedRAMP) Implementation**

**Job code: 101221**

**NRC Entrance Conference**

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## Entrance Conference Questions

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**Boyer, Rachel**

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**From:** Guerrero, Rosanna (b)(6)  
**Sent:** Monday, February 13, 2017 12:03 PM  
**To:** Jolicoeur, John  
**Cc:** Lewis, Robert; Rasouli, Houman; Scott, Jay L; Crosland, Larry E  
**Subject:** [External\_Sender] RE: GAO Engagement Notification 101221  
**Attachments:** Final NRC NOTIFICATION LETTER\_ 101221.docx

Please see the attached updated final notification letter.

Best regards,  
Rosanna Guerrero

**From:** Scott, Jay L [mailto:(b)(6)]  
**Sent:** Monday, February 13, 2017 7:50 AM  
**To:** Jolicoeur, John <John.Jolicoeur@nrc.gov>; Lewis, Robert <Robert.Lewis@nrc.gov>; Rasouli, Houman <Houman.Rasouli@nrc.gov>  
**Cc:** Wilshusen, Gregory C (b)(6); Crosland, Larry E (b)(6); Guerrero, Rosanna (b)(6)  
**Subject:** [External\_Sender] GAO Engagement Notification 101221

Attached is a notification of a new GAO engagement -- 101221.  
Jay Scott

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**Boyer, Rachel**

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**From:** Scott, Jay L (b)(6)  
**Sent:** Monday, March 06, 2017 7:33 AM  
**To:** Jolicoeur, John; Lewis, Robert; Rasouli, Houman  
**Cc:** Fennell, Anne-Marie; Malcolm, Jeffery D; Thomas, Swati  
**Subject:** [External\_Sender] GAO Engagement Notification - 101433  
**Attachments:** ALL\_STAFF-#1966254-v1-NOTIFICATION\_LETTER\_NRC\_(101433).DOCX

Attached is a notification of a new GAO engagement -101433 .

Jay Scott

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