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Mr. Michael King, Director  
Division of Fuel Cycle Safety, Safeguards  
and Environmental Review  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission

**Subject:** Industry Comments on U.S. Nuclear Regulatory Commission Draft Working Group Charters on Building Smarter Licensing and Inspection Programs for Fuel Cycle Facilities Discussed During April 2, 2019 NRC Public Meeting

**Project Number: 689**

Dear Mr. King:

The Nuclear Energy Institute (NEI)<sup>1</sup>, on behalf of its members, submits the following comments on the Draft Working Group Charters which were discussed during the U.S. Nuclear Regulatory Commission (NRC) public meeting held on April 2, 2019. Specifically, efforts by NRC Headquarters and Region II management and staff to build “smarter” fuel cycle licensing and inspection programs based on several inputs. These include but are not necessarily limited to our collective experience, operational insights, expertise, overall performance, and qualitative and quantitative inputs to further risk-inform the current programs.

Most importantly, it is critical to acknowledge that the fundamental structure and conduct of the current NRC licensing and inspection programs remain sound and are effective. Further, most of the fuel cycle facilities have over 50 years of operating experience built on facility-specific safety analyses that evolve to reflect relevant risks and current licensed operations. That being said, we fully support efforts to make NRC’s oversight and licensing programs “smarter” and we appreciate early engagement on this initiative and the opportunity to comment.

First, as stated during the public meeting, we appreciate the advance release of the Draft Charters which helped us prepare for and provide initial feedback during the meeting. We look forward to reviewing the final versions. Secondly, we support this optimization effort and provide both general and specific comments below. Certain statements and expectations in the January 15, 2019 memorandum from then-Director Marc Dapas to all Office of Nuclear Material Safety and Safeguards (NMSS) staff on Key Principles for NMSS Reviews are not included in the Draft Licensing Charter but probably should be to ensure reviewers adhere to current NRC policy and the licensing bases (see Section I, comment 1 below.)

Third, industry is formulating its thoughts on key elements of a “smarter” inspection program and is considering forwarding a proposal to you by May 31, 2019 for consideration. We will keep you updated on this effort.

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<sup>1</sup> The Nuclear Energy Institute (NEI) is responsible for establishing unified policy on behalf of its members relating to matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI’s members include entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect and engineering firms, fuel cycle facilities, nuclear materials licensees, and other organizations involved in the nuclear energy industry.

Finally, we would like to reiterate that there are several areas where licensees have seen recent improvement in the inspection arena. For instance, roles and responsibilities of inspection team members are better defined and understood, document requests have become more streamlined and less duplicative, and inspection and LPR schedules are provided well in advance for planning purposes. Furthermore, we reiterate our appreciation that two IPs for Category I facilities moved to the Resident Inspector, which acted as an initiating move in optimizing the inspection program. We look forward to building upon all of these notable improvements in 2019 and beyond.

In the meantime, we provide the following comments on the Draft Licensing and Inspection Charters for your consideration. We would very much appreciate your feedback regarding NRC's disposition of these comments.

#### **General Comments:**

1. **International Experience** - NRC should baseline its inspection program with other Nuclear Energy Agency member countries with fuel cycle facilities, for example Sweden and the United Kingdom.
2. **"Low-Hanging Fruit"** - As we stated during the April 2 meeting, there are likely "low-hanging fruit" efficiencies that, based on NRC's vast experience, could be implemented now for both the licensing and inspection program and do not need to wait on formal Working Group efforts to identify and implement. For example:
  - a. Requests for Additional Information (RAIs) should only be issued once the draft Safety Evaluation Report (SER) is written with each RAI addressing a gap in the draft SER. This should help minimize additional RAI rounds and would represent a significant, well-understood milestone in the review.
  - b. Combine the NRC acceptance and approval letters into one letter to the licensee in the case of simple license amendment requests.
  - c. Use a single NRC form at the time of the inspection exit meeting to officially close out the inspection in cases where there are no violations or noteworthy concerns. This practice is used by NRC's Division of Spent Fuel Management (DSFM) staff during transportation quality assurance program inspections.
  - d. Task the Resident Inspectors at the Category I facilities to close out minor administrative matters that traditionally have required a follow up visit by Headquarters or Regional staff, e.g., low safety significance event report follow up.
3. **Measuring Success and Future Meetings** - It is unclear how we will independently and collectively measure the success of this initiative; therefore, it warrants future dialogue as this project continues. Also, we respectfully request that all future public meeting dates be coordinated such that both Working Group efforts and products are discussed on the same public meeting day, for efficiency purposes.

#### **I. Licensing Charter**

1. Dapas Memorandum: Add relevant statements from Dapas memorandum regarding key principles to include but not limited to: 1) the review level is adjusted based on available relative margin; and 2) the level of detail in the licensee submittal should depend on that item's level of safety and risk significance.
2. Pilot vs Table Top: Given the small number of operating facilities and very low number of amendments submitted by licensees in any given year, the value of a "pilot" as discussed in the Charter is questionable. In lieu of a pilot, perhaps NRC would conduct a "table top" exercise with industry representatives where we

would collectively review recently issued or near term license amendments or renewals for best practices and lessons-learned. The purpose would be to glean insights on what portions of the process were efficient and what portions could be improved from both NRC and industry perspectives. Then, those insights would help inform modifications to the licensing process. If real time license amendments were to be included as part of the Working Group activities, we would request that certain aspects of the amendment be considered for fee-relief under Part 170.

3. **Working Group Membership:** The membership should also include representatives from the Office of Nuclear Reactor Regulation (NRR) and NMSS/DSFM. Fuel cycle industry representatives have repeatedly noted the efficiency and timeliness with which DSFM staff have processed and issued transportation related amendments, approvals, and package certifications and re-certifications.
4. **Requests for Additional Information (RAIs) and Timeliness Metrics:** The Charter is silent on the RAI process or NRC's timeliness metrics for licensing actions. The current process for these fundamental program elements should be analyzed for efficiency and effectiveness. For example, we suggest that FCSE set expectations with regard to the need for a clear regulatory basis for an RAI, whether the RAI is issued first in draft or final, and limit the number of rounds of RAIs for certain types of licensing actions. A similar initiative was launched by NRR in the recent past.
5. **Licensing Milestones:** The Charter is currently silent on establishing licensing milestones. Specifically, while we appreciate that staff is now routinely informing licensees or applicants of an estimated timeline and number of hours for a specific licensing action, there currently is limited licensing milestone information provided. We suggest FCSE management establish expected milestones from when the licensing action is accepted until a final licensing decision/amendment or license is issued. This information should be integrated into the currently provided timeline and expenditure estimates. It is a matter of predictability and clear expectations for both NRC and the licensee/applicant.
6. **Licensing Process Continuity:** Based on industry's experience, some processes and assurances need to be put in place to ensure continuity of quality and efficiency of the licensing process when there is staff or management turnover during a licensing action. This is particularly problematic with protracted and more complex licensing actions, e.g., renewals where additional documentation of status, next steps and other information to ensure a smooth transition from one staff or manager to another is needed.

## **II. Inspection Charter**

1. **Acknowledgement of Good Performance:** We believe a close scrutiny of current inspection procedure (IP) frequency and hours would reveal areas where the inspection process could be further optimized. NRC should utilize the License Performance Review (LPR) information that currently exists to adjust the frequency and/or scope of an IP based on consistent, good performance by a licensee. In other words, licensees should be credited for a history of no violations associated with a specific IP. For example, develop a trigger point such as "no findings in 3 years" results in a scaled down IP for Fire Protection or Material, Control and Accounting inspections or annual Emergency Preparedness, Radiation Protection, Transportation or Environmental inspections. Concurrently, increases in cited violations such that a specific LPR evaluation area is found less than adequate would see a commensurate increase in inspection hours or frequency.
  - a. **Example:** Fire protection is performed annually and triennially. Fire Protection has seen three cycles of triennials with no safety issues identified. Given the outstanding performance of the fleet with regard to Fire Protection, this level of oversight is redundant and unnecessary. As a matter of principle, triennials and annuals together under the same functional area raises the

question "what additional assurances are gained from the triennial inspections that are not gained from the annual (or vice versa)?"

2. Other Credit: Category III facilities currently receive an annual EP inspection and are required to conduct a Biennial observed drill. Instead, NRC should conduct a Biennial EP inspection and Biennial EP observed drill in alternating years. If issues are found with the program during either, the frequency of the EP inspection could be increased to annual as a result of the LPR process.
3. Credit for Corrective Action Program (CAP) Inspections: NRC should not conduct a separate and somewhat duplicative inspection of NRC-accepted CAPs at fuel facilities when those same CAPs are inspected by NRC's Vendor Inspection Branch in NRR. Separate inspections are not cost effective or necessary from a safety perspective.
4. Transfer to Resident Inspectors: We fully encourage the transfer of additional IPs from the Region to the Resident Inspectors at Category I fuel facilities. For example, we suggest that the Resident Inspector conduct the: 1) 1 Radiation Protection IP; 2) 1 of the 5 annual security IPs; and 3) Environmental Protection biennial, Waste Management, Transportation and Plant Modifications 2 of the 3 years with the 3<sup>rd</sup> year being conducted by the Region (i.e., an extra set of eyes every 3<sup>rd</sup> year for low risk compliance type safety inspections).
5. Optimization/Re-scoping of Modules: The current minimum hours (or "baseline") and scope of each IP have not been critically reviewed for a long time, but should be reviewed and adjusted as necessary, as is also being done in NRR. Reviews should be informed by an analysis of past data and trends over the last five years. For example, we are aware of cases where inspectors have adequately completed the IP in less than the estimated number of hours per IP, but felt compelled to remain on site. This approach is not efficient or effective for either NRC or licensees. Also, certain IPs could be modified to allow the inspector to exercise discretion to adjust the scope of the procedure based on low risk, familiarity with site operations, etc. As a result, certain inspection elements could be deemed necessary to perform every time, whereas other portions could be performed at the inspector's discretion or eliminated. This would result in greater efficiency and avoid a "checklist mentality" when performing inspections. Finally, consider how NRC currently uses other factors (e.g., event and 10 CFR 71.95 reports, monitoring data) to tailor relevant inspection modules.
6. Prep and Post Inspection Time: Review how hours are allocated for inspection preparation, actually performing the inspection, and documentation post-inspection. Consider whether the ratios are consistent among inspectors and appropriate for the procedure. To help facilitate this review, it may be worthwhile to consider creating a new Cost Accounting Code, so preparation activities and post-inspection documentation can be tracked separately and routinely analyzed.
7. Travel time and costs for inspections: Confirm that the travel time and associated costs for each inspector during an inspection can be justified, e.g., efficient use of rental cars. For example, consider implementing a maximum number of travel hours that can be charged based on the logistics associated with travel to and from the facility being inspected.
8. Bundling of Procedures: NRC should review the efficiency and effectiveness of the bundling of current procedures, as industry will do the same and provide feedback at a later date.
9. Real time inspection feedback to industry: NRC should consider developing a mechanism to relay more significant inspection findings or observations in "real time" (e.g., routine industry calls facilitated by NEI) and not wait for such information to be released via ADAMS months later. This approach would allow for

more timely sharing of generic information by the regulator. As we stated in the public meetings, NEI members do this today on a biweekly basis.

10. Changes to Inspection Manual: NRC should review how changes made to the inspection manual are internally reviewed and approved to ensure that the change is necessary and that the level of review is commensurate with the significance/impact of the change. Such changes should be transmitted electronically upon issuance to licensees.
11. Working Group membership: Similar to the Licensing Working Group Charter comment, we suggest that NRC staff outside of FCSE and RII be a part of the Working Group to "cross-pollinate" on efficiency improvements. As regulatory decisions are based on both licensing and inspection regiments, we offer that the two working groups should not be insular. We recommend that the two teams have occasional touch points, as direction of one may inform the other.
12. Minor edits: 1) Eliminate the word "gap" from the Charter when describing the current NRC inspection program as it implies that one exists. We disagree and we suspect NRC also disagrees with the implication of a "gap." 2) Edit item D.5 to read "fuel for advanced reactors" or "advanced fuels" for clarity rather than advanced reactors.

We trust that NRC will find these comments useful and informative, as it finalizes the draft working group Charters and begins to implement this initiative. We look forward to future engagement on this important matter. Please contact me or Hilary Lane of my staff ([hml@nei.org](mailto:hml@nei.org)) with any comments or questions on the content of this letter.

Sincerely,



Janet R. Schlueter

c: Ms. LaDonna Suggs, NRC/RII/DFFI  
Mr. Donnie Harrison, NRC/NMSS  
Mr. Jonathon Marcano, NRC/NMSS  
Mr. Michael Layton, NRC/NMSS/DSFM  
Mr. Christopher Miller, NRC/NRR/DIRS