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June 19, 2015

Ms. Marissa G. Bailey
Division of Fuel Cycle Safety, Safeguards and Environmental Protection
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Additional Fuel Cycle Industry Input on Potential Rulemaking to Amend 10 CFR Part 21; Docket ID: NRC-2012-0012

Project Number: 689

Dear Ms. Bailey:

On behalf of the Nuclear Energy Institute's (NEI)¹ fuel cycle facility members, we submit the following comments on current efforts by the U.S. Nuclear Regulatory Commission (NRC) staff to develop a regulatory basis document and potentially proceed with a Part 21 rulemaking as it applies to fuel cycle facilities. The information provided in this letter was discussed with the NRC staff during the public meeting held, in the context of our quarterly Cumulative Impacts meeting, at NRC on June 11, 2015. This additional input also supplements NEI's May 5, 2015 letter from Doug Walters to Glenn Tracy of NRC where fuel cycle industry comments were contained in Attachment 2.

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

First, we appreciate the willingness of you and your staff on June 11 to provide further clarification on two issues discussed during the April 28, 2015 Part 21 public meeting which warranted additional discussion to ensure mutual understanding. Second, as was stated during the meeting, operating fuel cycle facilities have programs in place today to ensure compliance with Part 21 and other reporting requirements, e.g., Part 70. We are not aware of any information, data, or evidence to suggest that these programs are not adequate. Finally, considering the cumulative effects of regulation initiative and recent Commission direction on Project AIM 2020, we strongly suggest that the staff discontinue expending its resources on this rulemaking effort which has no safety benefit and, in fact, could be detrimental to safety as discussed below.

While discussing the two items from the April meeting, further dialogue ensued regarding the regulatory basis for the potential Part 21 rulemaking. Industry again shared specific insights and information on why such modifications to existing Part 21 programs at fuel cycle facilities could result in unintended and detrimental safety consequences.

The Part 21 programs in place today at fuel cycle facilities meet the needs of their domestic and international customers, e.g., commercial nuclear power plants. Therefore, potentially modifying the NRC definition of or expectations regarding "basic components" absent a clear, well-articulated safety basis is ill-advised. Specifically:

- Changes to the definition of basic component would perturb the current Part 21 programs and potentially cause licensees to develop and implement two parallel Part 21 programs. The current programs cover Part 70 and 71 requirements as license or certificate holders as well as Part 50 requirements as a vendor. A very strong safety culture has developed around the current program, in particular reactor safety. By introducing a "basic component" with different requirements, the culture will be impacted in a way that could reduce sensitivity to the well understood requirements.
- A significant effort will be required to implement a potentially large number of basic components, which will be created if the NRC's rulemaking proceeds as planned. Under the current culture, a basic component has well defined critical characteristics that are necessary to assure effective operation. Satisfaction of such characteristics is currently assured by procurement control or dedication of commercial grade components. If another, less stringent method is used, this could increase the risk that what is sufficient for Items Relied on For Safety (IROFS)-based basic components is also acceptable for the currently strongly protected Part 50 components. Such an outcome would result in a decreased safety culture for Part 50 components.
- Changes to the definition of basic component in Part 21 would result in conflicting reporting requirements. Specifically, the current Appendix A to Part 70 contains reporting requirements for the loss or degradation of IROFS that result in failure to meet performance requirements. There could also be additional, and confusing, Part 21 reporting requirements on failed structures, systems, and component (SSC) IROFS even though performance requirements continue to be met by crediting

other SSC or administrative IROFS for a particular accident sequence. Furthermore, information presented during the NRC public meetings on April 28, 2015 and June 11, 2015 has been inconsistent on the necessity for additional Part 21 reporting requirements if the initial Part 70 report includes "relevant" information. The culture for current Part 21 reports is that a concern is raised and studied for its safety consequence. This process is completed in a relatively short period of time because the critical characteristics of the part are well understood and documented. A part may have a defect that is present but not safety significant, which is not reported, or the defect is identified as having safety significance, which is reported. The current proposed rule does not appear to consider how these criteria will be developed for fuel facilities.

- In reactor operations, a large reservoir of power is present during operations and the safety systems generally are designed to limit or dissipate this power during a transient event. Therefore, loss of a safety system at a reactor would be more significant than a potential defect in a proposed basic component at a fuel facility, which would require an initiating event as well as the failure. Because an additional event is necessary, a failure or defect that is readily detectable would not create a safety significant event regardless of the ability to meet critical characteristics. The rule as currently proposed does not appear to take into account detectability of defect or failure.
- The fuel facility-specific Integrated Safety Analysis required by Part 70 recognizes and supports the reality that the domestic fuel facility fleet is very diverse and no two facilities are alike, including the five operating fuel fabrication facilities. Since the facilities do not share common SSC suppliers or equipment, there is little to be gained by the NRC's attempt to modify Part 21 and to impose an unrealistic degree of regulatory uniformity that is not needed or reflected in the existing operating fleet.
- Staff has not, to date, articulated a safety basis for potential modifications to Part 21 and, in fact, acknowledges that the modifications proposed for fuel facilities could in fact constitute a backfit and warrant a full analysis. This fact significantly undermines the need for a rulemaking.
- As stated above, in light of the cumulative impacts of regulation initiatives and recent Commission direction on Project AIM 2020, we strongly suggest that the staff discontinue expending its resources on this potential rulemaking which has no safety benefit and, in fact, could be detrimental to safety.

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We trust you find these comments consistent with those offered previously and during the June 11, 2015 meeting, and we are available for further discussions if needed.

Sincerely,

A handwritten signature in cursive script, appearing to read "Janet R. Schlueter".

Janet R. Schlueter

- c: Ms. Catherine Haney, NMSS, NRC
- Mr. Glenn M. Tracy, NRO, NRC
- Mr. Michael C. Cheok, NRO/DCIP, NRC
- Ms. Sabrina D. Atack, NMSS/FCSE/PORB, NRC
- Ms. Kerri A. Kavanagh, NRO/DCIP/QVIB, NRC
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