July 21, 2009

MEMORANDUM TO: Daniel H. Dorman, Director
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Office of Nuclear Material Safety
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Joseph Shea, Director
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Region II

FROM: Russell A. Gibbs, Team Leader **/RA/**
Fuel Cycle Oversight Process
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SUBJECT: MEETING BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION STAFF AND NUCLEAR ENERGY INSTITUTE AND FUEL CYCLE FACILITIES REPRESENTATIVES CONCERNING THE REVISED FUEL CYCLE OVERSIGHT PROCESS

On June 22, 2009, U.S. Nuclear Regulatory Commission (NRC) staff met with representatives of Nuclear Energy Institute (NEI), and fuel cycle licensees and certificate holders concerning the revised fuel cycle oversight process (RFCOP). Enclosure 1 lists the meeting attendees.

The notice for this public meeting was issued on June 10, 2009, and was posted on the NRC's public web page under the Agencywide Documents Access and Management System (ADAMS) accession number ML091590316. The meeting notice was included as a handout for this meeting (Enclosure 2). Additional handouts included a letter to Mr. Felix Killar of NEI transmitting the draft RFCOP basis document (ADAMS accession number ML091680672) (Enclosure 3), the RFCOP Team Roster (Enclosure 4), and the meeting slides (Enclosure 5). All of the handouts (including NRC's public meeting feedback form) were sent via e-mail to those individuals who requested them. The discussion included the fuel cycle facility oversight process with emphasis on the performance indicator (PI) program, the PIs and significance determination process (SDP) for the emergency preparedness (EP) cornerstone, and the definition of a licensee performance deficiency.

Due to time limitations and the length of the discussions, some topics included in the agenda were not discussed. These topics were the regulatory framework, the cornerstone definitions, and the PIs and SDP for the proposed criticality safety cornerstone.

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The first part of the meeting focused on the fuel cycle oversight process (slide 4 of Enclosure 5), particularly on the PI program. Industry representatives asked how the development of PIs in the EP cornerstone would affect the oversight process at facilities where an emergency response plan is not required by Title 10 of the *Code of Federal Regulations* Part 70. The specific example used was the case of AREVA's fuel fabrication facility in Lynchburg, Virginia, where an emergency response plan is not required. The NRC staff addressed this issue by stating that if a facility does not have an emergency response plan because it is not required the developed PIs would not apply to that facility.

An NEI representative asked if the PIs would evolve periodically, and if the licensee would be able to change PI thresholds. The NRC stated that licensees would not be able to change the PI thresholds independently of the PI program. Rather, as is done in the Reactor Oversight Process (ROP), licensees would ask their questions in an envisioned frequently asked questions program where the question would be further evaluated by the NRC while engaging the industry. An industry representative indicated a concern if the initial PI threshold would be set by the licensee operating closer to the regulatory limit. The NRC staff further emphasized that licensees would not set PI thresholds on a facility-by-facility basis and that PI thresholds would attempt to be leading indicators of performance.

Industry representatives questioned if there would be a connection between the PI thresholds and inspections. The concern was that if a PI threshold is crossed, would the NRC perform the additional inspections. The NRC staff stated that an additional or supplemental inspection would normally be performed.

Three important aspects of the proposed PI program that were identified by an NEI representative and that the NRC staff agreed were: (1) the PI must be risk-significant; (2) for a particular cornerstone the PIs may not have a red or a yellow risk-significance band; and (3) in some cases a particular PI may not apply to certain facilities. The NEI representative expressed concern of the tendency to develop PIs at a too low threshold of significance. The NRC staff agreed that PIs should not be developed at a level that is more appropriate for licensees to manage.

In general, there was agreement on the fuel cycle oversight process. The industry representatives indicated that more details need to be developed in the PI program before they fully agree with including PIs in the RFCOP.

The second part of the meeting focused on the PIs and the SDP for the EP cornerstone. The discussion started with the PIs for the EP cornerstone used in the ROP (Enclosure 6). The NRC staff requested comments from the industry representatives regarding the differences between the PIs that the licensees proposed (Slide 12 of Enclosure 5) and the PIs used in the ROP. An industry representative indicated that the proposed PIs for the RFCOP are more restrictive than the PIs used in the ROP. The NRC staff asked the industry representatives how the NRC would know that the percentages of the completed EP objectives are risk-informed. The industry representative also indicated that it was not understandable how the ROP PIs were risk-informed. NRC staff stated that the proposed PIs for the RFCOP and the PIs used in the ROP are very similar and to understand how the ROP PIs were risk-informed the industry representatives needed to read the details in a document prepared by NEI and endorsed by the NRC for use in the ROP, referenced in the meeting as NEI-99-02. The NRC staff asked if there was any reason not to use NEI-99-02 for EP in the RFCOP. The industry representatives

rejected this idea since they did not participate in the development of NEI-99-02 and therefore did not understand it. An NEI representative suggested if it would be appropriate to develop a document similar to NEI-99-02 for the RFCOP and the NRC staff agreed.

The NRC staff had questions on the proposed PIs, specifically what did NEI and industry representatives mean by self exercise and training percentage. Industry representatives clarified self exercise as activities with a reduced scope carried out during the year, for example table-top exercises, and training percentage as a sufficient number of qualified individuals. In addition, an NEI representative clarified large scale drill as exercises with an expanded scope that would be carried out less frequently than self exercises, for example twice-a-year, and where the NRC would observe the large scale drill and evaluate the objectives before the large scale drill to ensure the objectives are risk-informed.

An industry representative indicated that it is important to educate the licensee staff on the fundamentals of the RFCOP. The industry representative recognized that the managers understand EP, but it is the licensee staff who would be working with the details. The NRC staff suggested a future interaction with the licensee staff. This interaction would begin with a workshop between EP staff experts from the licensees and the NRC.

The NRC staff explained the EP SDP (Enclosure 7) as it applies to inspection findings in the ROP. This flowchart was taken from the Inspector Manual Chapter (IMC) 0609 Appendix B, "Emergency Preparedness Significance Determination Process."

A member of the public questioned the objective of the EP cornerstone (Slide 11 of Enclosure 5) for only including a radiological emergency and not a chemical emergency. The NRC staff acknowledged that chemical safety is important for the safety of the facility and that the NRC staff is reviewing its jurisdiction for regulating chemicals at fuel cycle facilities to determine if the NRC would regulate a chemical emergency.

The final part of the meeting focused on the proposed definition of a licensee performance deficiency. The proposed definition of a licensee performance deficiency was taken from the IMC 0612, "Power Reactor Inspection Reports." The definition states, "*An issue that is the result of a licensee not meeting a requirement or standard where the cause was reasonably within the licensee's ability to foresee and correct, and that should have been prevented. A performance deficiency can exist if a licensee fails to meet a self-imposed standard or a standard required by a regulation.*" NEI and industry representatives did not agree with the proposed definition. The particular concern from NEI and industry representatives was the use of the words "standard" and "self-imposed standard." It was unclear to NEI and the industry representatives if the use of the word "standard" implied a license condition, NUREG, or Regulatory Guide. Also, industry representatives questioned the reason to define a licensee performance deficiency other than not meeting a regulatory requirement. An industry representative stated that using "self-imposed standard" in the definition would be a disincentive to use defense-in-depth to reduce the overall risk of the facility. The NRC stated that the basis for the definition in the ROP can be found in page 8 of IMC 0308 Attachment 3, "Significance Determination Process Basis Document." The NRC and industry agreed that this topic would need further discussion at subsequent meetings.

The NRC, NEI, and industry representatives agreed to conduct a workshop on the PI program and the SDP for the EP and criticality safety cornerstones at the end of July 2009. There was

also agreement that further discussions were needed on the definition of a licensee performance deficiency and the regulatory framework.

Enclosures:
1. Attendees list
2. Meeting notice
3. Letter to NEI transmitting draft RFCOP basis document
4. RFCOP Team Roster
5. Meeting slides
6. EP PIs for the ROP
7. EP SDP for the ROP

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