June 8, 2016

Ms. Barbara O'Neal
Erwin Citizens Awareness Network
P.O. Box 1151
Erwin, TN 37650

SUBJECT: NATURAL PHENOMENA HAZARDS AT FUEL CYCLE FACILITIES

Dear Ms. O'Neal:

Thank you for your March 1, 2016, letter concerning natural phenomena hazards at fuel cycle facilities and specifically at Nuclear Fuel Services (NFS) in Erwin, Tennessee. We share your desire to resolve the questions raised about accidents caused by natural phenomena. After the 2011 reactor accidents in Japan, the Commission directed the staff to assess whether lessons learned applied to non-reactor facilities. For the Honeywell facility in Metropolis, Illinois, potentially significant issues were identified and the U.S. Nuclear Regulatory Commission (NRC) staff took immediate steps to ensure corrective actions were taken. For other fuel cycle facilities, the staff concluded that the current regulatory approach and requirements continue to serve as a basis for reasonable assurance of adequate protection of public health and safety. However, additional information was needed to resolve issues regarding the treatment of certain natural phenomena events in the facility safety assessments.

When we first approved the accident analyses submitted by our licensees, we generally accepted the assumption that buildings were sound because they were built to the building code in effect at the time of construction. However, the NRC inspectors found that some older building codes did not contain seismic criteria and it was unclear if older buildings had the capacity to withstand the forces predicted by current seismic models. The fuel cycle facilities recognized the need to provide a better basis for the capacity of their buildings to withstand seismic events. Many facilities, including NFS, are conducting additional seismic analyses of their buildings, but the complex nature of these analyses means this work takes some time. As the reports have become available, we have begun conducting site visits to evaluate the new information regarding building capacity. A team of NRC reviewers conducted a site visit at NFS during the week of February 23, 2016, for this purpose.

In addition to the capacity of the building to withstand seismic forces, we are taking a more detailed look at the capacity of the equipment inside the buildings. If any new accident scenarios are identified, then the licensee will be required to address them. Our goal is to complete the evaluation of responses to Generic Letter 2015-01 by the end of the year. Meeting that goal depends on the quality of information provided by our licensees, and may take longer if we need to request additional information or perform more site visits and inspections.

I assure you that protecting the people and environment near NFS and all the facilities we regulate is our highest priority, and I understand your frustration with the time it is taking to resolve these issues. However, the effort to ensure that fuel cycle facilities have adequately addressed potential impacts of natural phenomena hazards is a complex and time intensive

undertaking. So far we have identified no hazards or potential accidents where the consequences would be significantly greater than those already identified in the approved accident analyses for the facility. If a significant new hazard is identified as a result of NRC activities, we will require the licensee to immediately address the concern.

With regard to the letter to the Editor of the Erwin Record, we have informed the concerned individual several times that fuel facilities, like NFS, are not required to meet the American Society of Mechanical Engineers (ASME) Nuclear Quality Assurance (NQA-1) standard. The quality assurance (QA) requirements for such facilities are specified in Title 10 of the *Code of Federal Regulations* (10 CFR) 70.62(d), "Management Measures;" and 10 CFR 70.64, "Requirements for New Facilities or New Processes." Management measures are those functions performed by the licensee that are applied to items relied on for safety, to ensure the items are available and reliable to perform their functions when needed. Management measures include: (1) Configuration Management, (2) Maintenance, (3) Training and Qualifications, (4) Procedures, (5) Audits and Assessments, (6) Incident Investigations, (7) Records Management, and (8) Other QA Elements. These requirements include the key attributes of a QA program appropriate for a fuel facility. Even though these facilities are not required to meet the provisions of ASME NQA-1, they are required to implement and maintain a robust QA program commensurate with the risk posed by the facility.

If you have any questions regarding this letter, please contact Kevin Ramsey of my staff at 301-415-7506, or by e-mail at: Kevin.Ramsey@nrc.gov.

Sincerely,

/RA/

Robert K. Johnson, Chief
Fuel Manufacturing Branch
Division of Fuel Cycle Safety, Safeguards,
and Environmental Review
Office of Nuclear Material Safety
and Safeguards

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