November 27, 2007

MEMORANDUM TO: Steven Garry, Team Leader
Reactor Inspection Branch/Health Physics Team
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

FROM: Roger Pedersen***/RA/***
Reactor Inspection Branch/Health Physics Team
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF NOVEMBER 8, 2007, CATEGORY 2 PUBLIC MEETING WITH NUCLEAR ENERGY INSTITUTE (NEI) TO DISCUSS DRAFT REGULATORY ISSUE SUMMARY ON THE RETURN/REUSE OF WATER CONTAINING DISCHARGED RADIOACTIVE EFFLUENTS

On November 8, 2007, a public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and the Nuclear Energy Institute (NEI) at NRC Headquarters in Rockville, MD. The purpose of this meeting was for NRC to present the draft Regulatory Issue Summary (RIS), "Return/Re-use of Water Containing Previously Discharged Radioactive Effluents from Operating Nuclear Power Plants." A list of attendees is enclosed.

The meeting was attended by representatives of the Nuclear Energy Institute (NEI), several nuclear utilities, and trade press. A telephone bridge line was provided for several attendees.

NRC presented the RIS, and discussed the basis for the document. The background information presented included a discussion of the issue identified during an NRC inspection at at the Wolf Creek nuclear power plant. NRC inspectors had identified that the licensee was discharging fire water from a fire hydrant onto the ground that contained radioactivity from previous authorized effluent discharges. The NRC determined that the licensee was discharging unlicensed radioactivity since it had been previously discharged in accordance with 10 CFR 20.2001. The purpose of the RIS was to clarify its existing regulations for licensees with respect to previously discharged effluents.

NRC presented the criteria for ensuring that the licensees properly survey and verify that the radioactive material is indeed previously discharged effluents, and that the discharge does not involve entraining of other unaccounted for radioactive materials, and that the concentration of radioactive materials does not exceed the 10 CFR Part 30 exempt concentrations. Additionally, licensees are responsible for evaluating any new exposure pathway that may exist were the new pathway to contribute 10 percent or more of the total effluent dose and if so, include those contributions in their assessment of compliance with Appendix I to 10 CFR Part 50.

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NRC then discussed 2 example scenarios: the first example was discharged fire water, and the second example was an airborne effluent discharge where the effluent was returned to site

either by rainout or by equipment condensation. In these examples, the licensee evaluated the new pathway, determined that the occupational impact was evaluated, and the new exposure pathway to the public was less than the 10% criteria discussed above.

The NEI representatives provided the following comments:

- the RIS provided a clarification that was needed for reclaimed radioactive materials
- that there a number of implementation questions that would be best addressed in upcoming industry workshops. NRC responded that additional guidance would be provided in the Regulatory Guide 1.21 that would be issued for public comment in 2008, and that workshops would likely be held to discuss these implementation details.
- that the word “lake” may be too narrow in scope, that a broader term such as “receiving body of water” may be more appropriate
- the implementation date for the RIS. NRC responded that this was already NRC’s policy, as demonstrated by the closure of the unresolved item at the Wolf Creek plant.
- a licensee questioned the instance of air conditioner condensate. NRC responded that if the condensate radioactivity results from properly discharged radioactive effluent, then the material did not require a second accounting and disposal. Conversely, if the condensate effluent originated from inside the plant prior to its measured and authorized discharge, then the condensate would have to be measured and released as a new effluent discharge.
- NEI noted that the Regulatory Guide 1.109 criteria for 10% of the total effluent release should be measured against the estimated effluent impact that was in the licensing basis, rather than on a year to year basis. NRC noted that this comment would be considered.

No public Meeting Feedback forms were received.

Enclosure: As stated

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Enclosure: As stated

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DATE	11/26/2007	11/27/2007

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Public Meeting with Nuclear Energy Institute (NEI) Discussion of Draft Regulatory Issue Summary On The Return/Reuse Of Water Containing Discharged Radioactive Effluents	
Name	Organization
Steven Garry	NRC
Roger Pedersen	NRC
Ralph Andersen	NEI
George Oliver	NEI
Mark Somerville,	Pacific Gas and Electric
Zigmund Karpa,	Exelon
David Miller	Clinton
Al Gould	Florida Power and Light
Doug Wald	Exelon
Mike Franklin	Progress Energy