

## NRR-PMDAPEm Resource

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**From:** Feintuch, Karl  
**Sent:** Tuesday, October 01, 2013 5:09 PM  
**To:** Feintuch, Karl  
**Subject:** FW: MF1771-MF1952 RAI 9-27-2013.docx  
**Attachments:** MF1771-MF1952 RAI 9-27-2013.docx; MF1952-RAII-ESGB-Wong-001 and -002-2013-09-24.docx

Record of message and attachments sending Request for Information (RAI) pertaining to:  
MF1771 (KPS LAR Re: License Condition C.(15)) and  
MF1952 (KPS LAR Re: Defueled License and Tech Specs)]

-----Original Appointment-----

**From:** Feintuch, Karl [<mailto:Karl.Feintuch@nrc.gov>]  
**Sent:** Friday, September 27, 2013 5:42 PM  
**To:** Wong, Emma; Jones, Heather; Craig D Sly (Generation - 6); Jack Gadzala (Generation - 4)  
**Cc:** John F Helfenberger (Generation - 4); Waig, Gerald; Yoder, Matthew; Cunanan, Davida  
**Subject:** MF1771/MF1952 RAI response  
**When:** Wednesday, September 25, 2013 2:00 PM-3:00 PM (UTC-06:00) Central Time (US & Canada).  
**Where:** HQ-OWFN-07B02-12p

===== update 2013-09-27-1820 ET =====

Meeting Attendees-

NRC: Karl Feintuch, Davida Cunanan, Heather Jones, Emma Wong, Matthew Yoder

DEK: Jack Gadzala, Craig Sly, John Helfenberger, Bill Zipp,

Summary-

1. **MF1952-RAII-ESGB-Wong-001-2013-09-24** is accepted as is and firm with an expected response in 30 days. This item should also apply to both MF1771 and MF1952.
2. **MF1952-RAII-ESGB-Wong-002-2013-09-24**, pertains to an issue designated as "the areal density issue" and belongs solely to MF1952. Therefore, it does not affect the evaluation of the MF1771 application. It is withdraw at this time. It will be applied specifically to MF1952 at a later date. Reviewer Wong will submit it at that time. Its content may differ from Wong-002 based on the outcome of the MF1771 or the status of regulatory policies or decisions in force at that time.
3. Therefore, **MF1952-RAII-ESGB-Wong-001-2013-09-24** is the only expected response at this time and will apply to both MF1771 and MF1952.

===== update 2013-09-24-1810 ET =====

Reviewer Wong requested that the attached draft RAI items (RAII) be added to the agenda. These RAIIs are based on both the MF1952 application dated May 29, 2013 (ML13156A037) and the RAI response letter dated September 5, 2013 (ML13254A186).

===== update 2013-09-24-1350 ET =====

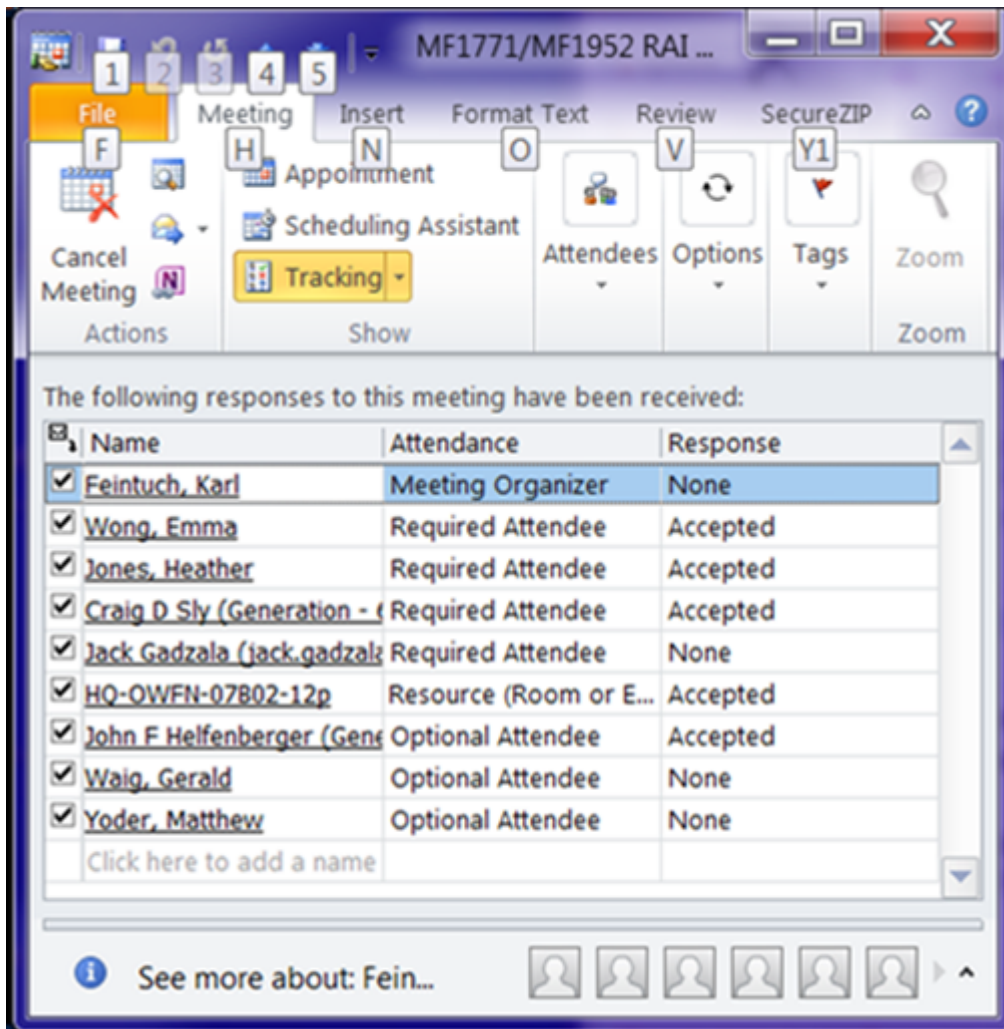
Bridge line information: **866-903-2078** (10 lines); Pass code **4817222#**

The meeting is confirmed. Current invitee status is:

<< File: MF1952-RAII-ESGB-Wong-001 and -002-2013-09-24.docx >>

I will try to sign on early. Allow time for room turnover from previous users.

The reference document for discussion is Letter 13-177A dated Sept 5, 2013 (our **ML13254A186**)



===== update 2013-09-24-1050 ET =====

Emma, Heather and Cc to Craig and Jack -

Jack called to indicate that a site drill will interfere with attending this meeting as originally scheduled. Can you attend at 3-4 pm ET on Wed, 9/25/13?

===== original message =====

This conference call request pertains to your recent RAI response to MF1771 and parts of MF1952 (Re: License Condition C(15)). I need to arrange a call of one hour within the time frame of Wed, 10:30 am to 1:00 pm ET.

The scope of discussion is:

- 1 - Discussion of the neutron absorbing materials in the SFP monitoring programs and the implementation of associated programs;
- 2 - Whether the key parameters of the neutron absorbing material in the SFP should be included in the Tech Specs and the needed level of detail.

The reference document for discussion is your Letter 13-177A dated Sept 5, 2013 (our ML13254A186)

**Hearing Identifier:** NRR\_PMDA  
**Email Number:** 860

**Mail Envelope Properties** (26E42474DB238C408C94990815A02F09010AB4ACCF9F)

**Subject:** FW: MF1771-MF1952 RAI 9-27-2013.docx  
**Sent Date:** 10/1/2013 5:09:01 PM  
**Received Date:** 10/1/2013 5:09:04 PM  
**From:** Feintuch, Karl

**Created By:** Karl.Feintuch@nrc.gov

**Recipients:**  
"Feintuch, Karl" <Karl.Feintuch@nrc.gov>  
Tracking Status: None

**Post Office:** HQCLSTR01.nrc.gov

Files	Size	Date & Time
MESSAGE	3442	10/1/2013 5:09:04 PM
MF1771-MF1952 RAI 9-27-2013.docx	13952	
MF1952-RAI-ESGB-Wong-001 and -002-2013-09-24.docx		26889
image001.png	243224	

**Options**  
**Priority:** Standard  
**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**

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<< File: ATT16347 1.jpg >>

DRAFT REQUEST FOR ADDITIONAL INFORMATION TO  
DOMINION ENERGY KEWAUNEE FOR  
KEWAUNEE POWER STATION REGARDING THE  
PERMANENTLY DEFUELED LICENSE AND TECHNICAL SPECIFICATIONS  
LICENSE AMENDMENT REQUEST  
DOCKET NO.: 50-305  
TAC NO.: MF1952

By a letter dated May 29, 2013, as supplemented, in part, by a letter dated September 5, 2013, (Agencywide Documents Access and Management Systems Accession Number [ADAMS] ML13156A037, and ML13254A186), Dominion Energy Kewaunee, Inc. (DEK, the licensee), submitted a license amendment request (LAR) to revise the Kewaunee Power Station (KPS) Plant Technical Specifications (TSs) to support a permanently defueled license and technical specifications consistent with the permanent cessation of reactor operation.

The NRC staff has reviewed the information the licensee provided and determined that additional information is needed in order to complete the review. The request for additional information (RAI) follows. Two RAI items (RAI1) are requested.

**Background**

The LAR states that the KPS current TS 4.3.1 will be retained to be the same with the exception of TS 4.3.1.2. However, the spent fuel pool (SFP) will continue to operate until the year 2020, as stated in the KPS Post-Shutdown Decommissioning Activities Report (PSDAR, dated February 26, 2013, ADAMS Accession No. ML13063A248). NRC staff is concerned about the information in the TS regarding the neutron absorbing materials that are currently relied upon in the SFP to maintain criticality and maintain compliance with the regulations. Currently TS 4.3.1.1 on TS page 4.0-1 states (the layout is not preserved in the TS text below):

- 4.3.1.1      The spent fuel storage racks are designed and shall be maintained with:
  - a.      Fuel assemblies having a maximum U-235 enrichment of 4.9776 weight percent;

- b.  $k_{eff} < 0.95$  if fully flooded with unborated water, which includes an allowance for uncertainties as described in Section 9.5 of the USAR;
- c. A nominal 8.3 inch rack cell lattice spacing between fuel assemblies placed in the canal pool;
- d. A minimum 10 inch center to center distance between fuel assemblies placed in the north and south pools; and
- e. New and spent fuel assemblies stored in the north and south pools and the canal pool in accordance with LCO 3.7.15, "Spent Fuel Pool Storage."

**MF1952-RAII-ESGB-Wong-001-2013-09-24**

RAI 1.

In the response to request for additional information dated September 5, 2013, DEK stated that the boron carbide surveillance program is currently in place and the Boral surveillance program has not been completed in the Table "Disposition of License Renewal Commitments Listed in Appendix A of NUREG-1958," copied below. It is not clear to the staff how the boron carbide plates and Boral in the SFP will be monitored/surveyed during the decommissioning period and the time period for surveillance. Please clarify.

Excerpt from Table "Disposition of License Renewal Commitments Listed in Appendix A of NUREG-1958"

38	The Boron Carbide Surveillance Program, which includes neutron attenuation testing, will continue to be performed during the period of extended operation every 3 years.	Prior to the Period of Extended Operation  Program is in place	1	Upon approval of the proposed amendment, this commitment will be managed under 10 CFR 50.59 for continued applicability.
39	A surveillance program will be implemented to perform verification that the Boral spent fuel storage rack neutron absorber B-10 areal density is maintained within the bounds of the spent fuel pool criticality analysis.  Alternatively, the criticality analysis for the spent fuel pool will be revised to eliminate credit for the Boral neutron absorber material.	Prior to 2017. Surveillance program will be performed every 10 years thereafter  Not completed	N/A	Upon approval of the proposed amendment, this commitment will be managed under 10 CFR 50.59 for continued applicability.

**MF1952-RAI-ESGB-Wong-002-2013-09-24**

RAI-2.

Neutron absorbing materials need to be monitored, and the degradation needs to be mitigated in the SFP to ensure that the assumptions in the criticality analysis of record and the requirements of TS 4.3.1 are not challenged. Since the materials are integral to the compliance with TS 4.3.1 and with the regulations, the NRC staff is concerned that the following items of information should be reflected in the TS: (1) the material's critical parameter, (2) areal density, and (3) details for the surveillance program.

Please describe how incorporation or referral of this information into the TS will be achieved.

