

June 19, 2009

MEMORANDUM TO: Timothy Frye, Chief  
Health Physics Branch  
Division of Construction Inspection  
& Operational Programs  
Office of New Reactors

FROM: Robert Kellner, Health Physicist /RA/  
Health Physics Branch  
Division of Construction Inspection  
& Operational Programs  
Office of New Reactors

SUBJECT: SUMMARY OF MAY 20, 2009, CATEGORY 2 PUBLIC MEETING WITH THE  
NUCLEAR ENERGY INSTITUTE TO DISCUSS HEALTH PHYSICS ISSUES  
FOR NEW REACTORS

On May 20, 2009, the Nuclear Regulatory Commission (NRC) staff held a teleconference meeting with members of the Nuclear Energy Institute (NEI) to discuss new reactor health physics issues. Enclosure 1 lists the meeting attendees.

A public meeting notice was issued on April 29, 2009, and was posted on the NRC's external (public) web page (Agencywide Document Access Management System (ADAMS) Accession No. ML091130199). The notice included the meeting agenda, which was also available as a handout at the meeting. The discussions included:

- General COLA/DCD Application Status and Lessons Learned
- Status of Industry Radiation Protection Templates, including, NEI 07-08 (ALARA), NEI 07-09 (ODCM), NEI 07-10 (PCP), and NEI 07-03 (Radiation Protection Program)
- Discussion of Draft industry template NEI 08-08, "Generic FSAR Template Guidance for Life Cycle Minimization of Contamination", Draft Revision 1, 1A, and 1B.
- Construction Related Radiation Protection Issues
- Update of Regulatory Initiatives
- Miscellaneous Topics of Interest

NRC provided status updates of COLA and DCD applications and lessons learned from the review process. Information provided included the questions surrounding the Turkey Point deep well injection, transitioning from Bellefonte to Vogtle as the RCOL for AP-1000, DOE loan guarantees, prioritization of work being explored, and the petitions and contentions under review. NRC also stated that supplemental Requests for Information (RFI) have been, or are being, issued to address 10 CFR 20.1406 issues.

NRC and industry representatives discussed the status of five Radiation Protection Program templates developed by NEI to support COL applications. NRC stated that final published templates for NEI 07-09, Generic FSAR Template Guidance for Offsite Dose Calculation Manual (ODCM) Program Description and NEI 07-10A, Generic FSAR Template Guidance for Process Control Program (PCP) Description had been received and will be available through the NRC website (ML091460627 and ML091050234 respectively). NEI stated that work is complete on the final version of NEI 07-03, Radiation Protection Program, and that they plan to have it submitted to NRC by the end of May. NRC representatives stated that the safety evaluation of NEI 07-08, ALARA, is still in the review process but should be sent to NEI for final publication by mid June. NRC also stated that Revision 1 of NEI 08-08, Life Cycle Minimization of Contamination, had been received and that the SER is being completed and should be sent to NEI for final publication by the end of June.

A new standard meeting topic concerning Construction Related Radiation Protection Issues was added to the agenda. NEI previously developed an initial list of topics/issues that were presented for discussion. NEI identified seventeen health physics related construction issues as a starting point. NRC identified one additional issue that was included. NRC and NEI discussion resulted in identification of six issues that should be addressed in the near term, with the remaining items to be included in future meeting discussions. The six issues are: 1) density gauges, 2) radiography sources, 3) receipt of sources, 4) site characterization pre/post construction, 5) radiation protection training and monitoring of construction workers at a site adjacent to an operating facility, and 6) response by construction team at an operating site if rad material or contamination is found. NEI added that they are evaluating the best way to provide guidance to the industry and plan to communicate the identified options at the next scheduled meeting. The final draft list is included as Enclosure 2. NRC stated that with initial site work possibly beginning in fall 2009, development of the construction inspection plan has started and coordination between NRC offices is ongoing.

NRC provided status updates on several regulatory issues including NRC progress on initiating the process to update 10CFR20 and 10CFR50 Appendix I to be consistent with the current ICRP guidance (SECY-08-0197), development of Regulatory Guide (RG) 4.22 to address implementation of 10 CFR 20.1406 (c) for operating reactors, and revision of RG 1.21. NRC stated that an informational public Rulemaking website about the Radiation Protection guidelines revision process has been established ([www.nrc.gov/about-nrc/regulatory/rulemaking/opt-revise.html](http://www.nrc.gov/about-nrc/regulatory/rulemaking/opt-revise.html)) and that the formal plan for public and stakeholder meetings and involvement is being developed.

NEI commented on impacts of the Decommissioning Planning rule (SECY-09-0042) on upcoming revisions of Regulatory Guide 1.21 (DG-1186, Measuring, Evaluating, and Reporting Radioactive Material in Liquid and Gaseous Effluents and Solid Waste (ML080660617)) and Regulatory Guide 4.1 (DG-4013, Radiological Environmental Monitoring for Nuclear Power Plants (ML080660608)). NEI stated that since these revised Reg. Guides will not be issued at least six months prior to new reactor applications they will not be applicable to any of the current submitted COL applications.

NRC stated that initial scoping for an updated cost benefit analysis methodology has begun that will result in a NUREG guidance document and that Regulatory Guidance will likely be developed to address deep well injection. NRC noted that future participation is planned at industry and professional meetings as part of initial comment and information gathering to support development of the Rad Protection Guidelines revision process plan.

Enclosure:  
List of Attendees

cc w/encl: See next page

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**Enclosure:**

List of Attendees

List of Construction Related Radiation Protection Issues

cc w/encl: See next page

**DISTRIBUTION:**

|   |                                    |             |
|---|------------------------------------|-------------|
| PUBLIC  | RidsOgcMailCenter                  | A. Cubbage  |
| S. Burrows  | RidsAcrsAcnwMailCenter             | I. Berrios  |
| rla@nei.org   | NRO_DCIP_CHPB                      | RidsNroDcip |
| RidsNroDcipChpb   | RidsOpaMail                        |             |
| AI Tschaeche ( <a href="mailto:xat@alum.mit.edu">xat@alum.mit.edu</a> ) | David Matchick (dmatch@prolog.net) |             |

ADAMS Package Accession Number: ML091700406

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Meeting Notice Accession Number: ML091130199

| OFFICE | NRO/DCIP/CHPB | NRO/DCIP/CHPB (BC) |
|--------|---------------|--------------------|
| NAME   | R. Kellner    | T. Frye            |
| DATE   | 06/19/09      | 06/19/09           |

**OFFICIAL RECORD**

**Public Meeting with the Nuclear Energy Institute (NEI)  
Discussion of New Reactor Health Physics Topics  
May 20, 2009**

**Meeting Attendees**

| <b>Name</b>        | <b>Organization</b> | <b>Name</b>  | <b>Organization</b> |
|--------------------|---------------------|--------------|---------------------|
| Mark Paul          | Dominion            | Paul Mothena | SCE&G               |
| William Smith      | SNC                 | Kevin Pushy* | INPO                |
| Milton Rejcek      | STPNOC              |              |                     |
| Ron LaVera         | NRC - HQ            |              |                     |
| Robert Kellner     | NRC - HQ            |              |                     |
| Charlie Hinson     | NRC - HQ            |              |                     |
| Pedro Salas        | AREVA               |              |                     |
| Aaron Wilmot*      | Westinghouse        |              |                     |
| Jean-Calude Dehmel | NRC - HQ            |              |                     |
| Kimberly Keithline | NEI                 |              |                     |
| Ralph Anderson     | NEI                 |              |                     |
| Tim Frye           | NRC - HQ            |              |                     |
| Richard Ely        | Enercon             |              |                     |
| Travis Bement*     | Westinghouse        |              |                     |
| Shinji Otami       | MNES                |              |                     |

\* By Telephone

## **Construction/Pre-operational Topics For Discussion**

The following topics were identified for additional discussion at future meetings during the 5/20/09 NRC/NEI Health Physics Issues Public Meeting.

1. Radiography \*
2. Density gauges \*
3. Receipt of sources by EPC Team \*
4. Exposure from neighboring plant (ISFSI, etc) \*
5. Training accreditation
6. Site characterization pre/post construction (e.g. ground water) \*
7. Fuel receipt
8. Receipt/use of sources by COL holder
9. ODCM NRC review/acceptance
10. PCP NRC review/acceptance
11. RP/ALARA NRC review/acceptance
12. Pre-ops & acceptance of radwaste system (10 CFR 20.1406)
13. RP staffing - mobilization
14. VHRA review/walkdown
15. REITS/REMP pre-op monitoring (jump from old to new pgm, RG 4.15)
16. Machine generated radiography
17. MOU (MOA) for co-located plants with different owner/operators. E.g. how is dose from environmental TLDs apportioned?
18. Uncovering contamination in excavated material during construction. \*

\* = Identified as first topics that need be addressed

Nuclear Energy Institute

cc:

Mr. Anthony Pietrangelo, Vice President  
Regulatory Affairs  
Nuclear Energy Institute  
1776 I Street, NW, Suite 400  
Washington, DC 20006-3708  
arp@nei.org

Mr. H. A. Sepp, Manager  
Regulatory and Licensing Engineering  
Westinghouse Electric Company  
P. O. Box 355  
Pittsburgh, PA 15230-0355

Mr. Jack Roe  
Nuclear Energy Institute  
1776 I Street, NW, Suite 400  
Washington, DC 20006-3708  
jrw@nei.org

Mr. Charles B. Brinkman  
Washington Operations  
ABB-Combustion Engineering, Inc.  
12300 Twinbrook Parkway, Suite 330  
Rockville, MD 20852

Mr. Gary L. Vine, Executive Director  
Federal and Industry Activities, Nuclear Sector  
EPRI  
2000 L Street, NW, Suite 805  
Washington, DC 20036  
Gvine@epri.com

Mr. Pedro Salas  
AREVA  
pedro.salas@areva.com

Ms. Barbara Lewis  
Assistant Editor  
Platts, Principal Editorial Office  
1200 G St., N.W., Suite 1100  
Washington, DC 20005  
barbara\_lewis@platts.com

Mr. Gary Welsh  
Institute of  
Nuclear Power Operations  
Suite 100  
700 Galleria Parkway, SE  
Atlanta, GA 30339-5957

Alexander Marion, Executive Director  
Nuclear Operations & Engineering  
Nuclear Energy Institute  
1776 I Street, NW, Suite 400  
Washington, DC 20006-3708  
am@nei.org

Mr. James H. Riley, Director  
Engineering  
Nuclear Energy Institute  
Suite 400  
1776 I Street, NW  
Washington, DC 20006-3708

Ralph Anderson  
Nuclear Energy Institute  
1776 I Street, NW, Suite 400  
Washington, DC 20006-3708  
rla@nei.org

Ron Shippee  
Areva Unistar  
ronald.shippee@areva.com

Milton Rejcek  
STPNOC  
mfrejcek@stpegs.com

William Smith  
Southern Company  
x2wesmit@southernco.com

Richard Ely  
Enercon Services  
rely@enercon.com

Mark Strum  
Areva Unistar  
Mark.Strum@areva.com

George Oliver  
Nuclear Energy Institute  
1776 I Street, NW, Suite 400  
Washington, DC 20006-3708  
gxo@nei.org

Martin O'Neill  
Morgan Lewis  
martin.oneill@morganlewis.com