

August 26, 2014

MEMORANDUM TO: Stewart Magruder, Branch Chief
Small Modular Reactor Licensing Branch
Division of Advanced Reactor & Rulemaking
Office of New Reactors

FROM: Demetrius Murray, Project Manager
Small Modular Reactor Licensing Branch
Division of Advanced Reactor & Rulemaking
Office of New Reactors

SUBJECT: SUMMARY OF JULY 30, 2014, PUBLIC MEETING WITH THE
NUCLEAR ENERGY INSTITUTE TO UPDATE AND DISCUSS
THE STATUS OF NUCLEAR REGULATORY COMMISSION AND
INDUSTRY ACTIVITIES ON SMALL MODULAR REACTOR
ISSUES.

On July 30, 2014, a category 2 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC), representatives of the Nuclear Energy Institute (NEI), and members of the public at a NEI office, 1201 F Street NW, Washington, DC. The purpose of this meeting was to update and discuss the status of NRC and industry activities relative to Small Modular Reactors (SMR).

After introductory remarks, the meeting opened with a discussion by NRC, which was based on the list of SMR issues in SECY-10-0034. The first item NRC discussed was the use of Probabilistic Risk Assessment in the licensing process, including updates to various NRC procedures. An inter-office staff working group has developed preliminary guidance for multi-module risk for SMRs and engaged stakeholders in a public meeting in June 2014. This guidance expands upon that which is currently in SRP Section 19.0, "Probabilistic Risk Assessment and Severe Accident Evaluation for New Reactors".

Updates were given about the Appropriate Source Term, Dose Calculations, and Siting for SMRs. NRC staff stated it would remain engaged with SMR stakeholders regarding the applications of a mechanistic source term (MST). NRC is actively working to better characterize the source term issue for SMRs through internal reviews and through interactions with stakeholders in order to determine whether a policy recommendation to the Commission is needed. NEI expressed their interest in meeting with the NRC, via public meetings, to discuss their next step.

The third topic discussed was Offsite Emergency Planning (EP) Requirements for SMRs. The NRC gave updates to the Emergency Planning Zone (EPZ) and scalability requirements. NEI stated that they are developing responses to the NRC's questions on their white paper (Agencywide Documents Access and Management System (ADAMS) ML13107A052) on this topic and would request a public meeting with the NRC before they submit their responses. This meeting would likely take place in September.

NRC discussed Annual Fee for Multi-Module Facilities. The NRC discussed a scalable fee; calculated for each licensed power reactor as a function of its licensed thermal power rating (MWt). A working group comprised of staff from the NRC Office of New Reactors (NRO) and Office of the Chief Financial Officer (OCFO) was formed to address SMR annual fees issues. A proposed rule should be issued via SECY paper.

Next the NRC discussed Insurance and Liability for SMRs. At this time no work is imminent. The NRC also discussed License for Prototype Reactors. No NRC action is planned unless an application for a prototype reactor is received

The NRC also discussed License Structure for Multi-Module Facilities. Currently the agency's stance is licensing each module individually. The staff is awaiting an SMR application to finalize the recommended licensing approach for shared SSCs, using a specific multi-module facility design.

SMR utilize the same guidance as large light water reactors when it comes to "Aircraft Impact"; at this point there is not guidance specific to SMRs. NEI will verify the appropriate guidance is considered.

The NRC discussed the upcoming draft update to Regulatory Guidance 1.206, APPLICATIONS FOR LICENSING COMMERCIAL NUCLEAR POWER PLANTS. The upcoming revision focuses on the safety analysis report sections and will be applicable to SMRs. The revision will consist of new sections and appendices; the NRC focused on the 13 new parts that will be incorporated; the parts discussed are listed:

- Part 1 - General & Financial Information
- Part 2 - Safety Analysis Report
- Part 3 - Environmental Report
- Part 4 – Technical Specifications
- Part 5 – Emergency Plans
- Part 6 – Security Plans
- Part 7 – Exemptions/Departures/Variations
- Part 8 – Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC)
- Part 9 – Proprietary Information [redacted and other applications parts]
- Part 10 – Quality Assurance Program Descriptions
- Part 11 – Referenced Standard Design Certification
- Part 12 – Referenced Early Site Permit
- Part 13 – Supplemental Information

Appendices: Safety Analysis Reports – Standard Format & Content

Appendix A – Combined Licenses FSAR

Appendix B – Early Site Permit SSAR

Appendix C – Standard Design Certification FSAR

Appendix D – Combined License referencing Standard Design Certification and/or Early Site Permit

The NRC will be holding a Category 2 public meeting to describe the scope and plans associated with the NRC staff initiative to update and refine RG 1.206; meeting information and details can be found on the NRC website.

The conference line was opened to the public for questions. The first questions were from phone participants questioning the EPZ and scalability of a multi-module SMR. The NRC response to the question was that the EPZ of SMRs were still up for discussion pending the actual SMR design and scalability options of the design. The slippage of dates on the NRC website was questioned by a public participant. The NRC relies on vendors and utility to provide dates of applications and availabilities, the dates on the NRC website reflect what information is provided to the agency. Accuracy or lack of accuracy is reflective of information given to the agency. A member of the public questioned how many (FTE) are dedicated to SMR licensing. The NRC informed the member that the agency has adequate personnel. The NRC was asked about the environmental review of a multiple modules site with two SMRs initially but potentially expanding to additional modules. The NRC will consider the environmental impact of the total number of proposed SMRs from each applicant.

The NRC thanked NEI and closed the meeting. The meeting agenda and meeting attendees are included in Enclosures 1 and 2. The NRC's meeting announcement is available through ADAMS. The ADAMS accession number for the NRC's meeting announcement is ML14192B351. ADAMS is the system that provides text and image files of NRC's public documents. Documents are available electronically at the NRC's Electronic Reading Room at <http://www.nrc.gov/reading-rm/adams.html>. If you do not have access to ADAMS or have problems accessing the documents located in ADAMS, contact the NRC Public Document Room (PDR) staff at 1-800-397-4209, 301-415-4737, or pdr@nrc.gov.

Please direct any inquiries to me at 301-415-7646, email: Demetrius.Murray@nrc.gov, or Stewart Magruder at 301-415-7830, email: Stewart.Magruder@nrc.gov.

Sincerely,

/RA/

Demetrius Murray, Project Manager
Small Modular Licensing Branch
Division of Advanced Reactors and
Rulemaking
Office of New Reactors

Proj No.: 0689

Enclosure:

1. Agenda
2. List of Attendees

cc w/encl: Distribution via ListServ

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Please direct any inquiries to me at 301-415-7646, email: Demetrius.Murray@nrc.gov, or Stewart Magruder at 301-415-7830, email: Stewart.Magruder@nrc.gov.

Sincerely,

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2. List of Attendees

cc w/encl: Distribution via ListServ

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ADAMS ACCESSION NO.:ML14234A181

NRO-002

OFFICE	PM:DARR/SMRLB	BC:DARR/SMRLB
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DATE	08/26/2014	08/26/2014

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AGENDA

AGENDA FOR MEETING BETWEEN NUCLEAR ENERGY INSTITUTE AND THE U.S. NUCLEAR REGULATORY COMMISSION (NRC) STAFF

**WEDNESDAY, JULY 30, 2014; 2:00 p.m. - 3:00 p.m.
1201 F St NW, Washington DC**

TIME	TOPIC	LEAD
2:00 p.m. – 3:00 p.m.	Update and discuss the status of NRC and industry SMR activities	NRC

ATTENDANCE LIST

MEETING WITH NUCLEAR ENERGY INSTITUTE AND THE U.S. NUCLEAR REGULATORY COMMISSION (NRC) STAFF

JULY 30, 2014

Name	Organization
Matt Bandale	SNL Energy
Marc Nichol	NEI
Doug Walters	NEI
Russ Bell	NEI
Mark Williams	Westinghouse
Peter Hastings	Generation mPower
Tina Taylor	EPRI
Rebecca Smith-Kevern	DOE/NE
Greg Halnon	First Energy
Anne Cottingham	NEI
Steve Aitken	INPO
Daniel Lipman	NEI
Eugene Cobey	TVA
Edwin Lyman	UCS
Sara Barczack	Southern Alliance for Clean Energy
Jay Neuman	X-Energy
Tim Beville	DOE
Ken Barry	EPRI
Mary Pietrzyk	NEI
Steven Mirsky	NuScale Power, LLC
Pete Gaillard	TVA
Michael McAuliffe	Platts
Chris Colbert	NuScale Power
Tom Mundy	NuScale Power
M.V. Ramana	Princeton EDU
Tom Clements	SRC Watch (Savannah River Site Watch)
Bruce Lorenz	URS Nuclear Center
Ed Wallace	NuScale
Jana Bergman	Curtiss-Wright Corp.
Sarah Fields	Uranium Watch
James Gaston	Energy Northwest
Harsh Desai	U.S. Senate (Sen. Feinstein's Office)
Joseph Colaccino	NRC
Stewart Magruder	NRC
Deborah Jackson	NRC
Demetrius Murray	NRC