



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

September 11, 2015

MEMORANDUM TO: Kimyata Morgan Butler, Chief
New Reactor Rulemaking and Guidance Branch
Division of Advanced Reactors and Rulemaking
Office of New Reactors

FROM: Carolyn Lauron, Senior Project Manager /RA/
New Reactor Rulemaking and Guidance Branch
Division of Advanced Reactors and Rulemaking
Office of New Reactors

Nishka Devaser, Project Manager /RA/
Advanced Reactor and Policy Branch
Division of Advanced Reactors and Rulemaking
Office of New Reactors

SUBJECT: Summary of Meeting to Discuss the Advance Notice of Proposed
Rulemaking on Reactor Effluents (RIN 3150-AJ38; NRC-2014-0044)

On August 24, 2015, the Nuclear Regulatory Commission (NRC) staff conducted a Category 3 public meeting at NRC headquarters in Rockville, MD, regarding the advance notice of proposed rulemaking (ANPR) on reactor effluents. The purpose of this meeting was to discuss the issues and questions in the ANPR and to receive information to support the development of a regulatory basis for a potential revision to Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, "Appendix I, as requested in the *Federal Register* notice (80 FR 25237; May 4, 2015) announcing its availability. The public comment period expires on October 1, 2015.

The meeting was noticed at Agencywide Documents Access and Management System (ADAMS) Accession No. ML15233A276. The associated meeting slides and transcript are publicly available at ADAMS Accession Nos. ML15233A227 and ML15246A205, respectively.

CONTACTS: Nishka Devaser, NRO/DARR
301-415-5196

Carolyn Lauron, NRO/DARR
301-415-2736

Approximately 20 people participated in the meeting; both in-person and remotely using a teleconference line. Meeting participants included NRC staff and management, a representative from the Environmental Protection Agency (EPA), and representatives of the nuclear industry including the Nuclear Energy Institute (NEI). No formal comments were solicited during the meeting, as the NRC staff clarified that formal public comments should instead be provided as directed in the aforementioned *Federal Register* notice.

Summary of Presentations:

The NRC staff began its presentation by providing background information on its regulations for reactor effluents. Next, the NRC staff discussed the specific requirements for reactor effluents and presented the current long-term trend data for both liquid and gaseous effluents, as well as the sources of radiation exposure to an individual in the United States. After its overview of the information in the ANPR, the NRC staff presented each of the four issues identified in the ANPR and discussed the specific questions under each issue. Finally, the NRC staff concluded its presentation discussing other considerations for the contemplated changes to 10 CFR Part 50, Appendix I.

Public Participation Themes:

During the NRC staff's presentation various nuclear industry representatives asked questions and requested clarification on the presentation. The questions and comments are summarized as follows:

- A representative from the nuclear industry requested clarification on how the subject rulemaking of the ANPR, should it proceed, be coordinated with the rulemaking efforts of 10 CFR Part 20 and 40 CFR Part 190. The NRC staff clarified that the effort on the ANPRs for 10 CFR Part 20 and 10 CFR Part 50, Appendix I, are coordinated within the agency and with EPA. The representative from EPA confirmed that it is working together with NRC staff on the contemplated changes to the regulations.
- A representative from the nuclear industry requested clarification on how the staff will use the data it expects to receive from Oak Ridge National Laboratories (ORNL). The NRC staff clarified that the ORNL data will be reviewed and considered for potential changes to the regulations including updates to the current guidance implementing 10 CFR Part 50, Appendix I.
- A representative from the nuclear industry requested clarification on whether the staff has resource information for pursuing any of the options identified in the ANPR in light of Project AIM 2020. The NRC staff clarified that it has some initial resource estimates for internal agency use at this time.
- A representative from the nuclear industry requested clarification to Issue 2 related to the scope of changes to NRC guidance documents in terms of Regulatory Guide 1.109. The NRC staff clarified that the reference regulatory guide is the primary implementing document for 10 CFR Part 50, Appendix I. In

addition, the NRC staff noted that additional details and the rationale for identifying this issue may be found in SECY-08-0197.

- A representative from the nuclear industry requested clarification from the staff on how it addresses the cost of the rulemaking effort in comparison with the minimal benefit to safety. The NRC clarified that the staff is seeking comments from the industry and members of the public specifically on this issue.
- A representative from the nuclear industry requested commented that the Electric Power Research Institute (EPRI) has engaged in a 3-year project for ensuring accuracy in the determination of effluent dose to the public. The representative further noted that this information would be helpful in informing the proposed rulemaking.

Action Items/Next Steps:

- The public comment period closes on October 1, 2015.

Enclosure:
List of attendees

- addition, the NRC staff noted that additional details and the rationale for identifying this issue may be found in SECY-08-0197.
- A representative from the nuclear industry requested clarification from the staff on how it addresses the cost of the rulemaking effort in comparison with the minimal benefit to safety. The NRC clarified that the staff is seeking comments from the industry and members of the public specifically on this issue.
- A representative from the nuclear industry requested commented that the Electric Power Research Institute (EPRI) has engaged in a 3-year project for ensuring accuracy in the determination of effluent dose to the public. The representative further noted that this information would be helpful in informing the proposed rulemaking.

Action Items/Next Steps:

- The public comment period closes on October 1, 2015.

Enclosure:
List of attendees

cc: See next page, w/encl.

DISTRIBUTION:

See next page

ADAMS Accession No. ML15237A206***via email****NRO-002**

OFFICE	PM:DARR/NRGB	LA:DARR/NRGB	PM:DARR/NRGB
NAME	CLauron	BAbeywickrama*	NDevaser*
DATE	9/8/15	8/25/15	9/11/15
OFFICE	DSEA/RPAC	BC:DSEA/RPAC	
NAME	RClement*	MMcCoppin* (DPalmrose for)	
DATE	9/11/15	9/11/15	

OFFICIAL AGENCY RECORD

Memo to K. Morgan Butler from C. Lauron and N. Devaser dated September 11, 2015

SUBJECT: SUMMARY OF MEETING TO DISCUSS THE ADVANCE NOTICE OF PROPOSED
RULEMAKING ON REACTOR EFFLUENTS (RIN 3150-AJ38; NRC-2014-0044)

DISTRIBUTION:

PUBLIC

NRGB R/F

Carolyn Lauron

Nishka Devaser

Kimyata Morgan Butler

Deborah Jackson

Michael Mayfield

Michael McCoppin

Richard Clement

Andrea Kock

Scott Flanders

Anthony Huffert

Jennifer Borges

Andrew Pessin

Roger Pedersen

BAbeywickrama

RidsOgcMailCenter

RidsNroOd

RidsNroDarr

RidsNroDsea

LIST OF MEETING ATTENDEES

Name	Organization
Carolyn Lauron	NRC
Nishka Devaser	NRC
Richard Clement	NRC
Michael McCoppin	NRC
Anthony Huffert	NRC
Jennifer Borges	NRC
Deborah Jackson	NRC
Bill Rautzen	NRC
Roger Pedersen	NRC
Jean-Claude Dehmel	NRC
Brian Littleton	EPA
Andrew Pessin	NRC
Samuel Wender, IV	First Energy Nuclear Operating Company
Jerry Hiatt	NEI
Betsy Langille	TVA
Ellen Anderson*	NEI
Kevin Burroughs*	Exelon
Chris Courtenay*	Duke Energy
Jim Key*	Key Solutions
Karen Kim*	EPRI
Carl Tarantino*	Dominion

* Participated by teleconference

NEI New Reactors Mailing List

NEI New Reactors Mailing List

(Revised 08/25/2015)

cc:

Mr. Gary Wright, Director
Division of Nuclear Facility Safety
Illinois Emergency Management Agency
1035 Outer Park Drive
Springfield, IL 62704

NEI New Reactors Mailing List

Email

4pareez@gmail.com
Alan.Levin@areva.com (Alan Levin)
alsterdis@tva.gov (Andrea Sterdis)
awc@nei.org (Anne W. Cottingham)
awyche@bechtel.com (Altheia Wyche)
bellesrj@ornl.gov (Randall Belles)
bendoj@asme.org (John Bendo)
Betsy Langille (ealangille@tva.gov)
bevans@enercon.com (Bob Evans)
bevardbb@ornl.gov (Bruce Bevard)
Bojan.Petrovic@gatech.edu (Bojan Petrovic)
brian.turner@oca.iowa.gov (Brian Turner)
BSims@Becht.com (Robert Sims)
bwwaites@southernco.com (Brandon Waites)
carey.fleming@cenglic.com (Carey Fleming)
ccmsc@verizon.net (Mike Callahan)
cee@nei.org
charles.bagnal@ge.com (Charles Bagnal)
collinlj@westinghouse.com (Leslie Collins)
cposlusny@babcock.com (Chester Poslusny)
CumminWE@Westinghouse.com (Edward W. Cummins)
curtisslaw@gmail.com (Jim Curtiss)
cwaltman@roe.com (C. Waltman)
david.distel@exeloncorpo.com (David J. Distel)
david.hinds@ge.com (David Hinds)
david.lewis@pillsburylaw.com (David Lewis)
david.newland@cnsccsn.gc.ca (David Newland)
dchapin@mpr.com (Douglas Chapin)
DeLaBarreR@state.gov (R. DeLaBarre)
dianed@nirs.org (Dianed)
dominiquef@nirs.org (Dominique French)
don.tormey@iub.iowa.gov
donald.woodlan@luminant.com (Donald Woodlan)
dpstout@tva.gov (Daniel P. Stout)
draleigh@curtisswright.com (Denna Raleigh)
ecullington@earthlink.net (E. Cullington)
ed.burns@earthlink.net (Ed Burns)
eddie.grant@excelservices.com (Eddie Grant)
elyman@ucsusa.org (Ed Lyman)
erg-xl@cox.net (Eddie R. Grant)
esmith@moenviron.org (Edward Smith)
ewallace@nuscalepower.com (Ed Wallace)
F.Shahrokhi@areva.com (Farshid Shahrokhi)
fletcher@exchangemonitor.com

NEI New Reactors Mailing List

garent@tva.gov (Gordon Arent)
George_Stramback@Charter.net (George Stramback)
ggeaney@mpr.com (George Geaney)
GovePA@BV.com (Patrick Gove)
gyoung4@entergy.com (Garry Young)
hankwon.choi@wgint.com (Hankwon Choi)
hickste@earthlink.net (Thomas Hicks)
hwilchins@epsilonsystems.com (Howard Wilchins)
jack.kasper@parsons.com (Jack Kasper)
jahalfinger@babcock.com (Jeff Halfinger)
james1.beard@ge.com (James Beard)
james2.ross@ge.com (James Ross)
jason.parker@pillsburylaw.com (Jason Parker)
jennifer.easler@oca.iowa.gov (Jennifer Easler)
jerald.head@ge.com (Jerald Head)
jgutierrez@morganlewis.com (Jay M. Gutierrez)
Jim.Kinsey@inl.gov (James Kinsey)
jim.sundermeyer@iub.iowa.gov
jmr@nei.org (Jeannie Rinckel)
JNR@NuScalePower.com (Jose N. Reyes)
john.elnitsky@pgnmail.com (John Elnitsky)
john.holt@nreca.coop (John Holt)
john.oneill@pillsburylaw.com (John O'Neill)
Joseph_Hegner@dom.com (Joseph Hegner)
jrappe@nuscalepower.com (Jodi Rappe)
jwh@nei.org (Jerry Hiatt)
jwh1@nreca.coop (John Holt)
kahtan1234@yahoo.com
KAK@nei.org (Kimberly Keithline)
kerri.johannsen@iub.iowa.gov
klingscl@westinghouse.com (Charles Kling)
kouhestani@msn.com (Amir Kouhestani)
kra@nei.org (Katie Austgen)
KSutton@morganlewis.com (Kathryn M. Sutton)
kwaugh@impact-net.org (Kenneth O. Waugh)
Kwelter@NuScalePower.com (Kent Welter)
larry.stevens@iub.iowa.gov
lchandler@morganlewis.com (Lawrence J. Chandler)
libby.jacobs@iub.iowa.gov
mack.thompson@iub.iowa.gov
marcel.deVos@cnscccsn.gc.ca (Marcel DeVos)
marilyn.kray@exeloncorp.com
mark.holbrook@inl.gov (Mark Holbrook)
martha.shields@nuclear.energy.gov (Martha Shields)
media@nei.org (Scott Peterson)

NEI New Reactors Mailing List

mgiles@entergy.com (M. Giles)
mirskys@saic.com (Steven Mirsky)
MSF@nei.org (Marvin Fertel)
murawski@newsobserver.com (John Murawski)
nirsnet@nirs.org (Michael Mariotte)
Nuclaw@mindspring.com (Robert Temple)
P.Stefanovic@Holtec.com (Peter Stefanovic)
parveen.baig@iub.iowa.gov
patriciaL.campbell@ge.com (Patricia L. Campbell)
paul.gallagher@parsons.com (Paul Gallagher)
Paul@beyondnuclear.org (Paul Gunter)
pbessette@morganlewis.com (Paul Bessette)
pcarlone@mpr.com (Pete Carlone)
peter@hastings-group.com (Peter Hastings)
phg@nei.org (Paul Genoa)
PLorenzini@NuScalePower.com (Paul Lorenzini)
poorewpil@ornl.gov (Willis P. Poore III)
pshastings@tva.gov (Peter Hastings)
ramana@Princeton.EDU (M. V. Ramana)
rbarrett@astminc.com (Richard Barrett)
richard.sweigart@duke-eneergy.com (Richard Sweigart)
RJB@NEI.org (Russell Bell)
robert.haemer@pillsburylaw.com (Robert Haemer)
robert.kitchen@pgnmail.com (Robert H. Kitchen)
ronald.polle@oca.iowa.gov
rritzman@firstenergycorp.com (R. Ritzman)
RSnuggerud@NuScalePower.com (Ross Snuggerud)
rxm@nei.org (Rod McCullum)
sabinski@suddenlink.net (Steve A. Bennett)
sfrantz@morganlewis.com (Stephen P. Frantz)
shobbs@enercon.com (Sam Hobbs)
siciliatom@hotmail.com (Mark Campagne)
stephan.moen@ge.com (Stephan Moen)
stephen.markus@pillsburylaw.com (Stephen Markus)
steven.hamrick@fpl.com (Steven Hamrick)
swender@FirstEnergyCorp.com (Samuel Wender IV)
swkline@bechtel.com (Steve Kline)
tedquinn@cox.net (Ted Quinn)
tgado@roe.com (Burns & Roe)
timothy.beville@nuclear.energy.gov (Timothy Beville)
tjhester@midamerican.com (Tom J. Hester)
tjk@nei.org (T.J. Kim)
tom.miller@nuclear.energy.gov (Thomas P. Miller)
troche@absconsulting.com (Thomas Roche)
trsmith@winston.com (Tyson Smith)

NEI New Reactors Mailing List

Vanessa.quinn@dhs.gov (Vanessa Quinn)
vince.gilbert@excelservices.com (Vince Gilbert)
vka@nei.org (Victoria Anderson)
Wanda.K.Marshall@dom.com (Wanda K. Marshall)
wayne.marquino@ge.com (Wayne Marquino)
whorin@winston.com (W. Horin)
william.mcint.com (William Mctigue)
wwbx@hyperionpowergeneration.com (Willis Bixby)
x2gabeck@southernco.com (Gary Becker)