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

July 28, 2021

MEMORANDUM TO: Kerri A. Kavanagh, Chief
Quality Assurance and Vendor Inspection Branch
Division of Reactor Oversight
Office of Nuclear Reactor Regulation

FROM: Yamir Diaz-Castillo, Reactor Operations Engineer
Quality Assurance and Vendor Inspection Branch
Division of Reactor Oversight
Office of Nuclear Reactor Regulation


Signed by Diaz
on 07/28/21

SUBJECT: SUMMARY OF THE NUCLEAR REGULATORY COMMISSION'S 1ST TOWN HALL MEETING ON VENDOR OVERSIGHT

On June 24, 2021, the Office of Nuclear Reactor Regulation (NRR), Division of Reactor Oversight (DRO), Quality Assurance and Vendor Inspection Branch (IQVB) staff, hosted the first Nuclear Regulatory Commission's (NRC) Town Hall Meeting on Vendor Oversight. Due to concerns regarding the Coronavirus disease 2019 (COVID-19) pandemic and the importance of social distancing, the NRC held this Town Hall meeting virtually. A WebEx session in conjunction with a telephone bridge-line was used for participation of all attendees. The purpose of the Town Hall meeting was to allow the IQVB staff to engage in an open dialogue with external stakeholders to discuss any current issues of importance to the nuclear industry and to provide guidance and clarification on these issues.

The Town Hall meeting began with opening remarks by Ms. Kerri Kavanagh, IQVB Chief, followed by a keynote address by the NRR Office Deputy Director for Reactor Safety Programs and Mission Support, Mr. Mike King. The Town Hall meeting continued with three presentations by the following members of the IQVB staff: Ms. Deanna Zhang, Mr. Jonathan Ortega-Luciano, and Mr. Yamir Diaz-Castillo. The rest of the Town Hall meeting was be dedicated to two open question and answer (Q&A) sessions where the meeting attendees had an opportunity to ask questions to the NRC staff on a variety of topics. The audience included approximately 220 attendees representing companies and organizations from 10 countries including vendors, industry groups, and government regulatory agencies.

A list of registered attendees is provided in Enclosure 1. The town hall meeting notice can be found in the NRC's Agencywide Documents Access and Management System (ADAMS) under Accession Number (No.) ML21098A017. The presentations are available on the NRC's public website at https://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance/town-hall-meetings.html.

CONTACT: Yamir Diaz-Castillo, NRR/DRO
301-415-2228

Meeting Summary

Ms. Kerri Kavanagh opened Town Hall meeting with brief remarks and introduced the keynote speaker, Mr. Mike King. Mr. King's remarks covered areas such as the Vendor Inspection Program (VIP), supplier oversight during the COVID-19 pandemic, the role of the vendor, and safety culture. Mr. King discussed the purpose of the VIP and how it provides the regulatory oversight necessary to ensure the integrity, quality, and performance of the materials, components, and services that are relied upon to maintain nuclear safety. Mr. King also spoke of the challenges associated with providing effective oversight of the nuclear supply chain during the COVID-19 pandemic and the collaboration between the NRC staff and industry stakeholders to find novel solutions to these challenges. In addition, Mr. King highlighted the significant role that safety culture plays in the supply chain and the NRC's expectations for suppliers to demonstrate a strong commitment to developing, maintaining, fostering, and improving the safety culture at their facilities. Mr. King closed his remarks by sharing three key messages on (1) how crucial is the need for rigorous vendor oversight to maintaining the integrity of the global supply chain and nuclear safety, (2) the NRC staff and stakeholders working together to achieve a positive outcome, and (3) a positive and strong safety culture promotes quality and trust in the domestic and global supply chain.

Ms. Deanna Zhang, Senior Reactor Operations Engineer, IQVB, delivered a presentation titled "Design Control: Importance of Adherence to the Requirements in the Procurement Specifications" (ADAMS Accession No. ML21160A241). Ms. Zhang started her presentation by describing the requirements from Criterion III, "Design Control," and Criterion IV, "Procurement Document Control," in Appendix B, "Quality Assurance Program Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to Title 10 of the *Code of Federal Regulations* Part 50, "Domestic Licensing of Production and Utilization Facilities." Ms. Zhang (1) explained the licensees' responsibilities concerning the requirements that may be imposed in the procurement specifications such as codes, standards, and other technical requirements; (2) clarified that a supplier's issuance of a Certificate of Compliance (CoC) to the requirements in a procurement specification may be included as a requirement in the purchase orders (POs); and (3) provided a few examples of recent NRC inspection findings and observations related to CoCs not clearly stating what requirements within the applicable standards were met and how compliance to standards imposed by licensee's POs did not get passed down to the sub-suppliers. Ms. Zhang concluded her presentation by reminding suppliers of their responsibilities for verifying the requirements from a licensee's POs when supplying a safety-related structure, system or component.

Mr. Jonathan Ortega-Luciano, Reactor Operations Engineer, IQVB, delivered a presentation titled "Regulatory Alternatives for Supplier Oversight During Exigent Conditions" (ADAMS Accession No. ML21160A245). Mr. Ortega-Luciano started his presentation by providing a description of some of the actions the NRC staff, along with industry stakeholders (e.g. Nuclear Energy Institute, Electric Power Research Institute, licensees, suppliers, etc.) have taken to address what alternatives are currently available to licensees and suppliers for conducting external audits and commercial-grade surveys during exigent conditions. Mr. Ortega-Luciano highlighted four methods currently available to licensees and suppliers: (1) procuring from an alternate source; (2) performing commercial-grade dedication; (3) hybrid method; and (4) a provisional procurement authorization in conjunction with the corrective action program. Mr. Ortega-Luciano proceeded to briefly describe three regulatory alternatives for use during exigent conditions currently approved by the NRC through safety evaluation reports: (1) overall extension of 25% for triennial audit and commercial-grade survey frequency; (2) remote source verification; and (3) provisional and fully remote assessments.

Mr. Yamir Diaz-Castillo, Reactor Operations Engineer, IQVB, delivered a presentation titled "NRC's Updated Recognition of the ILAC Accreditation Process" (ADAMS Accession No. ML21160A247). Mr. Diaz-Castillo covered the NRC's updated recognition of the International Laboratory Accreditation Cooperation's (ILAC) accreditation process documented in the NRC's safety evaluation report dated November 23, 2020 (ADAMS Accession No. ML20322A019). Mr. Diaz-Castillo: (1) discussed the limitations associated with the use of the ILAC accreditation process; (2) provided clarification on the requirement for documenting a technical evaluation when using the ILAC accreditation process, and (3) described the two new conditions necessary when implementing the ILAC accreditation process. Mr. Diaz-Castillo concluded his presentation by clarifying that for licensees, the use of the International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) standard No. 17025:2017, "General Requirements for the Competence of Testing and Calibration Laboratories," as part of the ILAC accreditation process represents a quality assurance (QA) alternative to a previously accepted QA program. As such, licensees may adopt the QA alternative of using ISO/IEC 17025:2017 provided that the bases of the NRC's approval are applicable to the licensee's facility pursuant to the requirements of 10 CFR 50.54(a)(3)(ii).

Mr. Diaz-Castillo's presentation was followed by two Q&A sessions to allow the participants to ask questions to the NRC staff. The NRC staff answered several questions on a variety of topics related to QA during the two Q&A sessions. The NRC would like to provide more information regarding a question received during the meeting on whether remote assessments can be performed for reactivating a supplier no longer on the Approved Suppliers List. Please refer to Attachment A for the NRC's answer to this question.

In summary, the Town Hall meeting provided an opportunity to our stakeholders in the nuclear supply chain to engage directly with the NRC staff to discuss regulatory and technical issues of interest to them.

Enclosures:

1. Attachment A, "Response to Stakeholders' Question Regarding Performing Remote Assessments for Reactivating Suppliers"

2. List of Attendees

SUBJECT: SUMMARY OF THE NUCLEAR REGULATORY COMMISSION'S 1ST TOWN HALL MEETING ON VENDOR OVERSIGHT Dated: July 28, 2021

DISTRIBUTION:
PUBLIC
MKing
RFelts
CMiller
JNakoski
KMorgan-Butler
NRR_DRO_IQVB Distribution

ADAMS Accession No.: ML21208A131 NRR-106

OFFICE	NRR/DRO/IQVB	NRR/DRO/IQVB
NAME	YDiaz-Castillo	KKavanagh
DATE	07/27/2021	07/28/2021

OFFICIAL RECORD COPY

NRC Town Hall Meeting on Vendor Oversight
June 24, 2021

During the Vendor Town Hall meeting conducted on June 24, 2021, a question was asked regarding the NRC staff's position on the applicability of using the remote audit options for the reactivation of suppliers no longer on a licensee's or vendor's approved supplier list (ASL). Specific guidance on reactivating suppliers no longer on the ASL was not provided. A safety evaluation approved implementing the guidance found in Electric Power Research Institute's (EPRI's) Technical Report (TR) No. 3002020796, "Remote Assessment Techniques: Planning and Conducting Audits and Surveys Using Remote Techniques During Exigent Conditions," for performing hybrid remote, fully remote, and provisional remote assessments (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21159A126). The EPRI TR No. 3002020796 was developed with industry stakeholders, that included NRC staff, to provide the option within a licensee's or vendor's quality assurance program for remote performance when a supplier assessment is required. The proposed change provides guidance for the application of video and other real-time communication technologies for the successful performance of remote supplier assessments. This response provides the NRC staff's position on what guidance should be implemented to ensure a reactivated vendor has been properly vetted.

The regulatory position 4.b.(4), in Regulatory Guide (RG) 1.28, "Quality Assurance Program Criteria (Design and Construction)," states the following:

- The applicant or licensee should perform or arrange for annual evaluations of suppliers. It should document these evaluations and take the following considerations into account, where applicable:
  (a) the review of supplier-furnished documents and records such as certificates of conformance, nonconformance notices, and corrective actions;
  (b) results of previous source verifications, audits, and receiving inspections; and
  (c) operating experience of identical or similar products furnished by the same supplier and results of audits from other sources (e.g., Nuclear Procurement Issues Committee audit reports or NRC inspection reports).

RG 1.28 endorses, with certain clarifications and regulatory positions, the American Society of Mechanical Engineers (ASME) NQA-1-2015, "Quality Assurance Requirements for Nuclear Facility Applications." Requirement 7 of NQA-1, "Control of Purchased Items and Services," Paragraph 200, "Supplier Evaluation and Selection," states:

- Prior to award of a contract, the Purchaser shall evaluate the Supplier's capability to provide items or services in accordance with the requirements of the procurement documents. Supplier evaluation and selection and the results therefrom shall be documented and shall include one or more of the following:
  (a) Supplier's history of providing an identical or similar product that performs satisfactorily in actual use. The Supplier's history shall reflect current capability.
  (b) Supplier's current quality records supported by documented qualitative and quantitative information that can be objectively evaluated.
  (c) Supplier's technical and quality capability as determined by a direct evaluation of the facilities, personnel, and the implementation of the Supplier's quality assurance program.

A licensee is responsible for ensuring that appropriate consideration is given to a supplier's previous historical performance. This historical performance may include, but not limited to experience of other applicants and licensees, their previous experience with a vendor, or relevant nonnuclear industry experience. The considered experience should be relevant to the intended end-use of the item or service. If the historical performance is outdated or not pertinent, then a licensee should not consider the use of a remote assessment. Historical performance may be considered outdated if the QA program or process controls have been modified, regardless of the time since the changes were implemented. The licensee should document this evaluation and provide adequate justification.

The applicant or licensee must determine the scope of the audit to ensure the supplier's capabilities can adequately provide the necessary item or service. This determination is guided by the EPRI TR No. 3002020796 for performing fully remote and provisional remote assessments. The EPRI TR No. 3002020796 was developed with industry stakeholders, that included NRC staff, to provide the option within a licensee's QA program for remote performance when a vendor assessment is required. The proposed change provides guidance for the application of video and other real-time communication technologies for the successful performance of remote vendor assessments. The proposed use of this method of vendor assessments will only be applicable when a pandemic or similar state of emergency has been declared restricting access or travel to and/or from those locations affected by the declaration.

The NRC staff has determined that the existing regulatory requirements provide adequate assurance that the assessment for current and reactivated suppliers ensure sufficient controls are in place for determining a supplier can provide an item or service. Additionally, the added controls provided by the EPRI TR No. 3002020796, if justified, are sufficient to provide licensees adequate tools for the proper conduct of a remote audit.

NRC Town Hall Meeting on Vendor Oversight
June 24, 2021

Registered Attendee List

Name	Affiliation
Michael Franzen	Toshiba American Energy Systems
Douglas Burget	Westinghouse Electric Company (WEC)
Joe Dobogai	Fairbanks Morse Engine
Linda Chase Brissey	PCI Energy Services
Jo Ann Smart	The Sherwin-Williams Company
Leslie Casey	Jensen Hughes
Jay Gardiner	Curtis-Wright EMD
Richard Buechler	Southern Nuclear Operating Company
Jana Bergman	Curtis-Wright Scientech
Joshua Luppert	Luminant - Comanche Peak Nuclear Power Plant
Paulo Cesar Duarte Ferreira Jr.	Eletronuclear
Mohammad Al Falasi	ENEC
Olimpio Torres Jr.	UUSA
Fawaz Jabali	General Atomics Electromagnetic Systems
Scott T. Fairburn	BWXT Technologies
Victor Montalbano	Framatome, Inc.
Marcus Alexander	Energy Steel
Rob Burg	Engineering Planning and Management Inc.
Earl R. Mayhorn	Ameren
Chris Isert	AAF International
Michelle McDonald	Emerson Automation Solutions
Anthony Bolyen, P.E.	Curtis-Wright
Sarah Malito	Major Tool & Machine
Divya Paidy	United Controls International
Ann Saia	CB&I Services
Phillip Sargenski	RSCC Wire & Cable
Robert Sweeney	Consultant
Peter Blattner	KTA-Tator, Inc.

Name	Affiliation
Duane Newman	Framatome, Inc.
Loren Ernst	Duke Energy
Troy Wetzel	American Crane
Guy Robinson	Entergy
Taisha Lockette	Dominion Energy
Joaquim Silva Neti	Eletronuclear
Jason Sintic	WEC
Paul Gladieux	Global Quality Management
Shamsher Beri	Portland Gen Electric
James Nikola	TerraPower
Stew Shannon	Curtis-Wright EMD
Abhijit Sengupta	Department of Energy (DOE)
Morris Mitchell	MNES
Denise Meredith	Conco Services, LLC
Adam Mrugacz	Sargent & Lundy
Robert Ammon	Curtis-Wright
Michael Porfilio	Stainless Foundry & Engineering
Will Grimes	Wood Environment & Infrastructure
Tonya Jarrett	Specialty Product Technologies
William Ross	EnerSys
Robert Ostrowski	BWXT
Sandra Delvin	Happy Associates, LLC
Robert Phillips	WEC
Lakeisha Eaton	MPR Associates, Inc.
Kathy Lewis	DOE
Roman Kmicikewycz	Major Tool & Machine
Steven Shelton	General Electric Hitachi
Joshua Grimm	NuSource, LLC
Frank Shetterly	Major Tool & Machine
Christopher Roache	WEC
Mike Cox	BWXT

Name	Affiliation
Sarah Nagel	Hanford Mission Integration Solutions
Rebecca Baumgartner	Lincoln Structural Solutions
Duska Jovicic	NEK
Evan Humes	PSEG
Christopher Kulwicki	Kinetix Quality Services, LLC
Leon Payne	NB Power
Gabriele Giobbe	Canadian Nuclear Safety Commission (CNSC)
Dwayne Howard	Teco-Westinghouse Motor Co.
Alan Newcomer	Nawah Energy Company
Rachel Czuba	SSI
Laurel Wong	Ellis & Watts
Brian Condon	Transco Products, Inc.
Jorge Castillo	Turner Industries Group, LLC
Bob Decker	Weldstar
Andrew Kottenstette	Savannah River Remediation
William Wingfield	Triad National Security
George Donaldson	Urenco USA
Mark Coren	Duke Energy
Cheryl Sellers	Curtis-Wright
Melanie Dirks	SOR, Inc.
Brandon Troc	Fire & Pump Service Group
Jeff Miedema	Evoqua Water Technologies
Peter Miner	Teledyne LeCroy Test Services
James Davis	Major Tool & Machine
Claudia Lima	Eletronuclear
Steven Hughes	Sulzer Pumps
Dan Hunt	Curtis-Wright Scientech
Ed Renaud	WEC
Marwan Husain	Emirates Nuclear Energy Corporation
Hussain Aljaberi	Nawah Energy Company
Thomas Mudge	MQA Partners, LLC

Name	Affiliation
Brian Braithwaite	Curtis-Wright
Stanley Griffin	GE Hitachi Nuclear Energy
Paul Pridemore	Master Builders
Debra Loudenslager	Duke Energy
Mark Eisenman	PSEG
Elaine Ramirez	Crane Nuclear, Inc.
Terry Casteel	Toshiba Energy Systems & Services
Tad Gray	Curtis-Wright
Brad Greene	NAC International
Gary Mignogna	Framatome, Inc.
Rene Henriquez	ABB, Inc.
Ryan Joschak	Framatome, Inc.
Joe Cullinan	Crane Nuclear, Inc.
Jaime Castaneda	Framatome, Inc.
Andres Torralba	Iberdrola
Brigit Larsen	Nuclear Regulatory Commission (NRC)
Jana Bergman	Curtis-Wright
Michael Jasurda	Arizona Public Service (APS)
Daniel Boch	Dominion Energy
Lori Felber	Anderson Laboratories, Inc.
William Rosko	Rolls-Royce
Shawn Slover	HMIS
Claudia Lima	Eletronuclear
Mark Chavez	AECOM
Sunny Catalano	Turner Industries Group, LLC
Derek Sim	Kinectrics, Inc.
Brandon Ervin	Bechtel Corporation
David Behnke	Lucideon M+P
Patrick Stiles	Conval, Inc.
David Soward	Xcel Energy
Merideth Armstrong	Consumers Energy Laboratory Services

Name	Affiliation
Carolyn Monaco	NuScale Power
Steve Ferrar	Curtis-Wright
Glenn Neises	Burns & McDonnell
Tracy Bolt	Paragon Energy Solutions
Thomas Bright	Day & Zimmerman
Tara Werner	WEC
Justin Hubbard	Kinectrics, Inc.
Gary Peters	Framatome, Inc.
Eugene Brezhniev	RPC Radics, LLC
Anthony Sykes	TECO-Westinghouse Motor Co.
David Colegrove	Reuter-Stokes
Burt Tanaka	Fluid Components International, LLC
Anthony Fortunato	PSEG - LTS
Douglas Burget	WEC
Jessi Roberts	Electric Motor & Contracting
Lisa Brown	Exelon
Nathan Weigle	BWXT
Carol Lynn Riley	Pooled Inventory Management
John Hayden	Structural Integrity Associates
Edward Wynne	Flow America, LLC
Gregory Martin	Mitsubishi Nuclear Energy Systems, Inc.
Christopher Boschetti	Energy Solutions
Tomas Melo	Gutor Electronics, LLC
Sabrina Lane	Fluid Components International
Daniel Adams	APS
Christina Gonzalez	Carboline
Alex Jackson	Weldstar
Glenn Catalano	Turner Industries Group, LLC
Duane Ripplinger	Bechtel National, Inc.
Carmen Alonso	GE Hitachi
Timothy Kindelberger	Theseus Professional Services

Name	Affiliation
Kevin Buckley	Exelon Generation
Tim Moul	Ultra Electronics, Energy
Jeffrey Kaar	Pacific Gas & Electric
Tim O'Byrne	DOE
Benjamin Gordon	Ametek Solidstate Controls
Jason Haglund	Teledyne LeCroy Test Services
Leonard Laskowski	Structural Integrity
Joyce Hamman	Crane Nuclear, Inc.
Zach Mailahn	Emerson
Ruth Burany	Kinectrics, Inc.
Mark Harvey	Framatome, Inc.
Kristen Lloyd	Wood Environment & Infrastructure
Nikki Mace	Sonic Systems International
Roger Sims	Jensen Hughes
Gerry Mancuso	GE Hitachi Nuclear
Kimberly Harsley	WEC
John Simmons	None Given
John Larson	Nebraska Public Power District
Ivan Cabrera	Preferred Engineering
Orie Barnes	Transco Products, Inc.
Frances Faulkenberg	Global Quality Assurance, Inc.
Ankur Amin	Emirates Nuclear Energy Corporation
Martin Kurr	Fairbanks Morse Engine
Joseph Thompson	PSEG Nuclear
Christa Wood	Day & Zimmerman
Elizabeth Ervin	TerraPower
Kristin Robertson	Abilene Christian University - NEXT Lab.
Elizabeth Gandy	Henkel Corporation
Douglas Vickery	DuBose National Energy Services
Aaron Thomlinson	NRC

Name	Affiliation
Olimpio Torres	Urenco USA
Kevin Schoolcraft	Wolf Creek Nuclear
Kyle Blan	Crane Nuclear, Inc.
Rebekah Needham	Ametek Solidstate Controls
John Tykarski	PSEG
Patrick Scholz	Hilti Corporation
Julie Thompson	Sulzer Pumps Nuclear Service Center
Brian Ocampos	TN Americas, LLC
Brad Boothe	Acuity Quality Assurance
Scott Berman	Ultra Electronics, Energy
Kevin Kimmel	Management Systems and Support Services
Michael Gilman	United E&C, Inc.
Nathan Obermiller	Fluid Components International
Matt Brunette	Anderson Laboratories, Inc.
Franco Moi	Bechtel
Gabriel Ribeiro	Eletronuclear
Richard Baird	NextEra Energy
Avinash Jaigobind	NRC
Annemarie Appleton	Alloy Stainless Products Company
Elizabeth Mullins	BWXT NSG
Susan Edinger	Tennessee Valley Authority (TVA)
Devin Kelly	GE Hitachi
Ricky Morgan	FlawTech America
Matt Harrington	Energy Northwest
Mauricio Fernandes	Eletronuclear
Victor Romano	ABB
Patricia Valdez	APS
Paul Rades	NRC
Claudia Lima	Eletronuclear
Douglas King	Ametek Solidstate Controls
Jim Garrison	United Controls International

Name	Affiliation
Frank Bartoszek	Kinectrics, Inc.
Jim Highlands	Management Systems Analysis, Inc.
Marc Tannenbaum	Electric Power Research Institute
Ron McCall	Allied Power
Scott Baker	Curtis-Wright Scientech
Namkook Kim	TE Connectivity
Jim Borst	Namco Controls
Dan Roberts	Engine Systems, Inc
Edward Martin	Sargent & Lundy
Jeremy Tapp	NRC
Kevin Morris	Ellis & Watts
Tina Robertson	WEC
Bernard Johnson	Cameron
Rob Burg	EPM, Inc.
Paul Ragan	GE Hitachi
Randall Horst	National Nuclear Security Administration
Robert Glazier	TN Americas, LLC
John Carlson	TAW
Julie Corwin	NRC
Randall Kurtz	Sargent & Lundy
Jerry Clark	MSTS
David Zagres	Flowserve Corporation
Carlos Barberino	Southwest Research Institute
Peter Carlone	MPR Associates, Inc.
Doug Corbett	Idaho Laboratories Corporation
Chris Dimmich	Duke Energy
Alka Malur	HydroAire Service, Inc.
Amy Renato	Burns & McDonnell
Filomena Weiner	Preferred Utilities Manufacturing Corporation
Donald Hoffman	EXCEL Services Corporation

Name	Affiliation
David Nenstiel	DuBose National Energy Services
Scott Fairburn	BWX Technologies
Michael Dunkelberger	MPR
Charles Elias	Pennatronics Corp.
Miroslaw Swirad	Valcor
Theo Odendaal	X Energy, LLC
Matthew Young	North Wind Group
Justyn Alexander	NRC
Tamer Rezk	Bechtel Power Corporation
Matthew Ellis	Hayward Tyler, Inc.
Jim Abbett	Major Tool & Machine
Franklin Yeich	PSEG Nuclear, LLC
Gabriele Giobbe	CNSC
Laura Smith	NRC
Dana Wollter	Fluid Components International, LLC
Brett Crosby	Westinghouse Electric Company
Stacy Keipper	James C. White Company
Brian Hunt	Precision Custom Components
Michael Torbit	GE-Hitachi
David Stephens	Ultra Electronics
Jeffrey LeBlanc	Trillium Valves USA
Luc Pitre	NB Power PLNGS
Ethan Salsbury	Ametek Solidstate Controls
Walter Knox	CMC
Michael Cavalieri	Evoqua Water Technologies, LLC
Jessica Lemieux	EPRI
Pat McQuade	Framatome, Inc.
John Zalec	Sherwin Williams
Ben Donahoo	Curtis-Wright
Les Taggart	Paragon Energy Solutions
Paul Robinson	Ametek Solidstate Controls

Name	Affiliation
Karen Hammond	NextEra Energy
Mark Elliott	GE Hitachi
Jon Talbott	TVA
Jinsu Kim	Korea Institute of Nuclear Safety (KINS)
Constantin Illioiu	Curtis-Wright
Rebecca McClellan	Diversified Metal Products
John Karrick	Luminant
Robert Winn	Framatome, Inc.
Sam Wurzel	ARPA-E
James Stouch	Precision Custom Components
Robert Villegas	EPRI
Terry Krause	Burns & McDonnell
Densie Brandon	Energy Northwest
Heather Sullivan	WMG, Inc.
Vincent Grosso	MSTS
Michael Spahn	MPR Associates
Roy Gregan	NB Power
John Nakoski	NRC
James McIntyre	Sargent & Lundy
Mike Fussell	Pacific Gas & Electric
Robert Paton	Energy Steel
Yutaka Kodama	IHI Corporation
Ron Cook	Emerson
Robert Paton	Energy Steel
Gerard Machalick	TVA
Jerry Ice	TerraPower
Catherine Hoeger	Emerson Automation Solutions
Thomas Horan	Hilti Inc.
C. Isert	AAF
Holly Wonch	Kinectrics
Frank Yurich	American Crane & Equipment Corporation

Name	Affiliation
Donald Wiwczar	Zachry Nuclear Engineering
Brian Hendel	Columbia Generating Station
John McLean	Southern Nuclear Company
Christian Tiani	Dynamic Solutions USA, Inc.
Matty Ongchangco	Cameron
Brenda Sida	NRC
Herbert Mayes	Entergy
Randy Hugenroth	Omaha Public Power District (OPPD)
Sam Shaffer	Hayward Tyler, Inc.
Jerry Beasley	OPPD
Tim Czuba	Entergy
Carrie Wilson	Duke Energy
Randy Reynolds	Switchgear Solutions, Inc.
Mark Gerdes	GE Hitachi Nuclear Energy, LLC
Kazuyuki Tomoda	IHI Corporation
Taran Woo	Bechtel
Faisal Salman	Hydro, Inc.
Kevan Mitchell	Weldstar
David Barrientos	Lucideon
David Breneman	Dominion Energy Services, Inc.
Brad Taylor	Kinectrics
William Peterson	BWXT NSG
Brenda Thompson	PPG
Jonathan Michalo	Gutor Electronic, LLC
Samuel Mummert	TerraPower
Michael Hedden	Dominion Energy
Richard Swanson	Luminant
Paul Garcia	Framatome, Inc.
R. Glenn Craig	Wood Environment & Infrastructure Solutions
Abina Lane	FCI