



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

September 28 2018

MEMORANDUM TO: Dennis C. Morey, Branch Chief
Licensing Processes Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

FROM: Leslie Perkins, Project Manager */RA/*
Licensing Processes Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF SEPTEMBER 19, 2018, PUBLIC
MEETING BETWEEN THE U.S. NUCLEAR
REGULATORY COMMISSION AND NUCLEAR ENERGY
INSTITUTE AND INDUSTRY REPRESENTATIVES-NRC
ACTIONS ON OPEN PHASE CONDITIONS (NRC
BULLETIN 2012-01)

On September 19, 2018, a Category 2 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of the Nuclear Energy Institute (NEI) and nuclear power plant industry. The purpose of the meeting was for the NRC to discuss its observations and questions concerning the implementation of the open phase isolation systems (OPIs) and for industry to seek clarity and understanding of the content of the NRC staff's questions.

The meeting began with introductions and opening remarks followed by NRC staff providing the background information and NRC actions to date on open phase condition (OPC) in electric power system. NRC staff also summarized their observations from inspections and data gathered through the OPC Temporary Instruction (TI). 2515/194, 194, "Inspection of the Licensee's Implementation of Industry Initiative Associated with the Open Phase Condition Design Vulnerabilities in Electric Power Systems," inspections at four nuclear power plants. Additionally, the staff presented questions to industry regarding how licensees are implementing the VII to facilitate a fruitful discussion in an upcoming public meeting scheduled to be held in October 17, 2018. NRC staff observations and questions were categorized in four topics of interest, (1) OPC detection and alarm, (2) OPC protective action, (3) updated final safety analysis report update, and (4) surveillance & limiting condition for operation requirements. The NRC staff's observations and questions can be accessed in the Agency-wide Documents Access and Management System (ADAMS) under Accession Number ML18249A379.

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D. Morey

NEI identified an error in the staff's observations and questions document; the staff corrected this error and the revised document can be accessed in ADAMS under accession number ML18271A111. During the discussion, NEI asked some clarifying questions on each topic of interest. NEI indicated that some of their responses to the staff's questions will be from a document previously submitted to the NRC, dated March 22, 2016 (ADAMS accession number ML16091A099). NEI also indicated that they would look into developing a generic approach to address some of the staff's questions on UFSAR updates, an OPIS failure with relay protection scheme, and how industry would use existing North American Electric Reliability Council (NERC) standards, and OPC relay vendor testing and surveillance requirements. NEI further stated that as part of their response to the staff's questions, they would include discussions of how they used risk information and analysis.

The NRC staff indicated that it would be very useful for NEI to implement a generic approach to address some of the staff's questions. This would assist the staff in being more effective and efficient in its review to close Bulletin 2012-01. Further, the NRC staff described that it would use the information discussed in the public meetings for staff's evaluation to determine whether the licensees identified potential OPC vulnerabilities and updated its licensing basis. The NRC staff also stated that it will continue to implement the OPC TI inspections. When final resolution is reached, the NRC will then determine whether further inspections are necessary.

The NRC staff and industry will continue discussions to seek clarity and better understanding of how the industry is implementing the VII at the next public meeting scheduled to be held on October 17, 2018.

Enclosure(s):

1. List of Attendees
2. Meeting Hand-out
3. Meeting Notice

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U.S. NUCLEAR REGULATORY COMMISSION AND NUCLEAR ENERGY
INSTITUTE AND INDUSTRY REPRESENTATIVES-NRC ACTIONS ON OPEN
PHASE CONDITIONS DATE: SEPTEMBER 28 2018

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PLPB R/F

ADAMS Accession Nos.:

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Meeting Hand-out: ML18249A379
Meeting Notice: ML18249A390

ADAMS Package: ML18268A342

OFFICE	NRR/DLP/PLPB	NRR/DE/EEOB	NRR/DLP/PLPB	NRR/DLP/PLPB
NAME	LPerkins	JQuichocho	DMorey	LPerkins
DATE	10/1/18	9 /28/18	10/1/18	10/1/18

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List of Attendees

Names	Organization
Scot Greenlee	Exelon
Kalimierz Leja	Exelon
Cory Johnson	Exelon
Stephen Geier	Nuclear Energy Institute (NEI)
Frances Pimentel	NEI
Eric Bowman	U.S. Nuclear Regulatory Commission (NRC)
Patrick Castleman	NRC
Roy Mathew	NRC
Ismael Garcia	NRC
Eric Benner	NRC
Jessie Guichocho	NRC
Jeremy Bowen	NRC
Leslie Perkins	NRC
Tania Martinez Navedo	NRC
Demetrius Murray	NRC
Brian Correll	NRC
Ngola Otto	NRC
David Decker	NRC
Nanette Valliere	NRC
Hassan Movafegh	Talen Energy - affiliated with Susquehanna plants
Nicholas Bartilomo	Talen Energy
Mike Wiwel	PSEG Nuclear
Diane Aitken	Dominion Energy
Joe DeMarco	Dominion Energy
Gordon Cleifton	DOE INL
Alex AlAhmed	Wolf Creek Nuclear Operating Corporation
Mark Haag	Ameren Missouri
Thomas Bartoski	Sargent & Lundy
Leonard Sueper	Xcel Energy
Brian Mann	EXCEL Services Corporation
Jordan L Vaughan	Duke Energy
Boyd Shingleton	Duke Energy
Wesley Kijowski	Duke Energy
Elizabeth Hare	DTE Energy
Wayne Johnson	EPRI
Phil Lashley	First Energy
Joe Mathew	INPO
Joe Tanko	DC Cook
Susan Richards	DC Cook
Brandon Crowder	DC Cook
Jeff McClelland	DC Cook
Terry Curtiss	DC Cook

Names	Organization
Ozzie Vidal	Certrec
Gregory Norris	Entergy Services
Mike Mustafa	Entergy Services
Tom Dunbar	MPR Associates
Tamatha Womack	Tennessee Valley Authority
Jana Bergman	Curtiss-Wright
Gregg Reimers	Public
Les Bailey	Southern Nuclear
Bonnie Goodwin	Southern Nuclear
Timothy Lensmire	NextEra Energy Point Beach
Ayodele Ishola-Salawu	NextEra Energy Nuclear Fleet
Andy Zielonka	NextEra Energy Nuclear Fleet
Rob Regan	NextEra Energy Nuclear Fleet

Enclosure