

January 11, 2017

MEMORANDUM TO: Joseph Donoghue, Chief
Licensing Branch 3
Division of New Reactor Licensing
Office of New Reactors

FROM: Adrian Muñiz, Project Manager **/RA/**
Licensing Branch 3
Division of New Reactor Licensing
Office of New Reactors

SUBJECT: SUMMARY OF TELECONFERENCE TO DISCUSS OPEN ITEMS
ASSOCIATED WITH THE REVIEW OF THE ADVANCED BOILING
WATER REACTOR CERTIFICATION RENEWAL

On October 27, 2016, the U.S. Nuclear Regulatory Commission's staff held a teleconference with members of GE Hitachi Nuclear Energy (GEH) to discuss responses to requests for additional information and letters addressing open items associated with the review of the advanced boiling-water reactor certification renewal. Specifically, the following topics were discussed:

1. Hurricanes Winds and Missiles – The staff asked GEH to address the velocities in the vertical direction and indicate whether the entire height of the structures are protected from all missiles or only up to 33 feet.
2. Multiple Spurious Operations (MSO) – The staff sought clarification on several items discussed in Subsection 9.5.1.1.7 as described below:
 - a. Describe remote multiplexing units and de-multiplexer.
 - b. Sentence that reads “The probability of two identical spurious signals matching, induced by physical damage (including fire damage) to the fiber-optic transmission cables is, miniscule,” seems to be mixing probabilistic language with a deterministic fire protection program.
 - c. Discuss whether digitized control signals must match at the de-multiplexer in order for control action to take place.

CONTACT: Adrian Muñiz, NRO/DNRL/LB3
(301)415-4093

J. Donoghue

-2-

- d. Staff indicated that statement that reads in part, "Damage to the fiber optic transmission cable" implies that the concern is limited to fiber optic cables creating an MSO.
- e. Clarify statement "Spurious operation of equipment controlled by Remote Multiplexing Units (RMU) in the field due to physical damage because of fire or smoke will be considered in cases where the connection between the RMU and the field devices is transmitting a command signal."

GEH committed to submit revisions to their letters associated with the items above to address staff's questions, as appropriate. The list of participants for the meeting is enclosed.

Docket No.: 52-045

Enclosure:
As stated

cc w/encl.: See next page

- d. Staff indicated that statement that reads in part, "Damage to the fiber optic transmission cable" implies that the concern is limited to fiber optic cables creating an MSO.
- e. Clarify statement "Spurious operation of equipment controlled by Remote Multiplexing Units (RMU) in the field due to physical damage because of fire or smoke will be considered in cases where the connection between the RMU and the field devices is transmitting a command signal."

GEH committed to submit revisions to their letters associated with the items above to address staff's questions, as appropriate. The list of participants for the meeting is enclosed.

Docket No.: 52-045

Enclosure:
As stated

cc w/encl.: See next page

DISTRIBUTION:

PUBLIC
 LB3 R/F
 RidsNroDnrl
 RidsOgcMailCenter
 RidsAcrsAcnw
 AMuñiz, NRO
 SGreen, NRO

ADAMS Accession No.: ML17004A316

NRO-002

OFFICE	LPM:NRO/DNRL/LB3	LA:NRO/DNRL/LB3	LPM:NRO/DNRL/LB3
NAME	AMuñiz	SGreen (R. Butler for)	AMuñiz
DATE	1/11/17	1/5/17	1/11/17

OFFICIAL RECORD COPY

**LIST OF PARTICIPANTS
TELECONFERENCE TO DISCUSS OPEN ITEMS ASSOCIATED WITH THE REVIEW OF THE
ADVANCED BOILING WATER REACTOR CERTIFICATION RENEWAL**

October 27, 2016

<u>Name</u>	<u>Organization</u>
Adrian Muñiz	NRC
Dennis Andrukat	NRC
Thinh Dinh	NRC
Joseph Ashcraft	NRC
Ryan Nolan	NRC
Hugh Upton	GEH
Peter Yandow	GEH
Alan Beard	GEH
Walter Schumitsch	GEH
Peter Fehring	GEH
Skip Butler	GEH
Patricia Campbell	GEH
Douglas McDonald	GEH
Mike Arcaro	GEH
Ira Poppel	GEH
Tanya Kirby	GEH
Taylor Blake	GEH

Enclosure

Email

APH@NEI.org (Adrian Heymer)
awc@nei.org (Anne W. Cottingham)
brianr.johnson@ge.com (R. R. Johnson)
Christopher.Powell@ge.com (Christopher Powell)
cschlaseman@mpr.com (Caroline Schlaseman)
CumminWE@Westinghouse.com (Edward W. Cummins)
cwaltman@roe.com (C. Waltman)
Dale.Wuokko@toshiba.com (Dale Wuokko)
david.lewis@pillsburylaw.com (David Lewis)
david.robillard@pseg.com (David Robillard)
F.Shahrokhi@areva.com (Farshid Shahrokhi)
George_Stramback@Charter.net (George Stramback)
GovePA@BV.com (Patrick Gove)
hugh.upton@ge.com (Hugh Upton)
jerald.head@ge.com (Jerald G. Head)
Joseph.Ondish@ge.com (Joseph Ondish)
Joseph_Hegner@dom.com (Joseph Hegner)
Kenichi.Sato.sz@hitachi.com (Kenichi Sato)
KSutton@morganlewis.com (Kathryn M. Sutton)
kwaugh@impact-net.org (Kenneth O. Waugh)
Ichandler@morganlewis.com (Lawrence J. Chandler)
Linda.Dolan@ge.com (Linda Dolan)
lon.burnam@house.state.tx.us (Lon Burnam)
Maryann.Herzog@ge.com (Maryann Herzog)
media@nei.org (Scott Peterson)
MSF@nei.org (Marvin Fertel)
nirsnet@nirs.org (Michael Mariotte)
Nuclaw@mindspring.com (Robert Temple)
patriciaL.campbell@ge.com (Patricia L. Campbell)
Paul@beyondnuclear.org (Paul Gunter)
pbessette@morganlewis.com (Paul Bessette)
peter.yandow@ge.com (Peter Yandow)
RJB@NEI.org (Russell Bell)
rschrauder@tane.toshiba.com (Robert Schrauder)
rtrench@mpr.com (Randy Trench)
Ryan.hough@ge.com (Ryan Hough)
sabinski@suddenlink.net (Steve A. Bennett)
sfrantz@morganlewis.com (Stephen P. Frantz)
stephan.moen@ge.com (Stephan Moen)
tom.miller@hq.doe.gov (Tom Miller)
trsmith@winston.com (Tyson Smith)
Vanessa.quinn@dhs.gov (Vanessa Quinn)
Wanda.K.Marshall@dom.com (Wanda K. Marshall)
wayne.marquino@ge.com (Wayne Marquino)