

April 18, 2016

MEMORANDUM TO: Kevin Hsueh, Chief
Licensing Processes Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

FROM: Jonathan G. Rowley, Project Manager /RA/
Licensing Processes Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF MAY 20, 2015, MEETING WITH THE PRESSURIZED
WATER REACTOR OWNERS GROUP REGARDING TOPICAL
REPORT WCAP-17308-NP, REVISION 0, "TREATMENT OF DIESEL
GENERATOR TECHNICAL SPECIFICATION FREQUENCY AND
VOLTAGE TOLERANCES"

On May 20, 2015, a meeting was held between the U.S. Nuclear Regulatory Commission (NRC) staff and the Pressurized Water Reactor Owners Group (PWROG). The purpose of this meeting was to discuss concerns, review status, and schedule for the review of Topical Report (TR) WCAP-17308-NP, Revision 0. The meeting was scheduled as a result of conversations had during the March 9, 2015, meeting between the NRC staff and the PWROG Executive Committee. The PWROG Executive Committee members had concerns that the NRC staff did not fully understand the methodology presented in the TR, had concerns with the schedule and cost of the review.

The meeting began with a short presentation by the PWROG representatives on the origin, history, and some review activities of the TR to date. The NRC staff then informed the PWROG representatives of its understanding of the issue the TR is attempting to resolve and its expectations for resolution. The PWROG representatives attempted to clarify the NRC staff's understanding and show how the TR addresses the expectations.

Several questions regarding the application of the TR were raised by the NRC staff during the meeting:

- The NRC staff questioned why plants do not use an existing methodology to address frequency and voltage variation on pump performance. The PWROG representatives responded that there is no existing methodology, that's why the WCAP was developed.
- The NRC staff asked if the TR factors different plant piping configurations although many plants use the same model pump. The PWROG representatives responded that each licensee has to evaluate on a plant specific basis. An umbrella evaluation cannot be applied generically on a pump model that may be used in different plant configurations.

- The NRC staff asked why are frequency and voltage variation not treated as a bias instead of an uncertainty for the impact on in-service testing (IST) pump curves. The PWROG representatives responded that a separate conference call would be needed to discuss diesel generator (DG) frequency and voltage variation and the IST pump curves.
- The NRC staff questioned how many plants should be expected to implement the WCAP-17308-NP methodology. The PWROG representatives responded that they will determine how many plants plan to adopt the WCAP-17308-NP methodology.
- The NRC staff indicated that the TR does not address some issues associated with high voltage such as impact on insulation, battery charger performance, 30-day mission times, etc. The PWROG representatives responded that during a 30-day mission time it is expected that plant maintenance personnel would adjust the DG output to its nominal frequency and voltage.

A list of attendees is enclosed. The PWROG presentation can be found in the NRC Agencywide Documents Access and Management System at Accession No. ML16055A171.

Action Items:

1. Arrange a conference call to discuss the relationship between DG frequency and voltage variation and the IST pump curves.
2. The PWROG is to determine what plants plan to adopt the TR.
3. The NRC staff is to provide the PWROG a schedule of actions to complete the review of the TR; including an estimated number of hours needed to complete the review and any potential limitations and conditions on the use/application of the TR.

Project No. 694

Enclosure: List of Attendees

CONTACT: Jonathan G. Rowley, DPR/PLPB
(301) 415-4053

- The NRC staff asked why are frequency and voltage variation not treated as a bias instead of an uncertainty for the impact on in-service testing (IST) pump curves. The PWROG representatives responded that a separate conference call would be needed to discuss diesel generator (DG) frequency and voltage variation and the IST pump curves.
- The NRC staff questioned how many plants should be expected to implement the WCAP-17308-NP methodology. The PWROG representatives responded that they will determine how many plants plan to adopt the WCAP-17308-NP methodology.
- The NRC staff indicated that the TR does not address some issues associated with high voltage such as impact on insulation, battery charger performance, 30-day mission times, etc. The PWROG representatives responded that during a 30-day mission time it is expected that plant maintenance personnel would adjust the DG output to its nominal frequency and voltage.

A list of attendees is enclosed. The PWROG presentation can be found in the NRC Agencywide Documents Access and Management System at Accession No. ML16055A171.

Action Items:

1. Arrange a conference call to discuss the relationship between DG frequency and voltage variation and the IST pump curves.
2. The PWROG is to determine what plants plan to adopt the TR.
3. The NRC staff is to provide the PWROG a schedule of actions to complete the review of the TR; including an estimated number of hours needed to complete the review and any potential limitations and conditions on the use/application of the TR.

Project No. 694

Enclosure: List of Attendees

CONTACT: Jonathan G. Rowley, DPR/PLPB
(301) 415-4053

DISTRIBUTION:

PUBLIC	DAley	PLPB R/F	JLubinski
RWolfgang	JZimmerman	GMatharu	PSnyder
RidsNrrLADHarrison	MJRoss-Lee	HKodali	TKoshy
JRowley	LWilkins	AFoli	RidsNroOd
RidsNrrDss	RidsNrrDssStsb	RidsOgcMailCenter	RidsNrrDpr
RidsNrrDprPlpb	RidsResOd	RidsACRS_MailCTR	RidsNrrDe
RidsNrrDeEeeb	RidsNrrDeEpnb	RMathew	

EXTERNAL DISTRIBUTION:

gac@nei.org	njstring@southernco.com	andracjd@westinghouse.com	sph@nei.org
rcarritte@mpr.com	etindall@mpr.com	jgay@mpr.com	

ADAMS Accession Nos.: ML16055A191; Pkg.:ML16055A186; Notice: ML15127A097; Presentation:
ML16055A171 NRR-106

OFFICE	NRR/DPR/PLPB	NRR/DPR/PLPB	NRR/DE/EEEB	NRR/DE/EPNB	NRR/DSS/STSB
NAME	JRowley	DHarrison	JZimmerman	DAley	RElliott
DATE		3/8/16	3/17/16	3/21/16	3/30/16
OFFICE	NRR/DPR/PLPB	NRR/DPR/PLPB			
NAME	KHsueh	JRowley			
DATE	4/15/16	4/18/16			

OFFICIAL RECORD COPY

List of Attendees

Meeting with PWROG Regarding Topical Report WCAP-17308-NP, Revision 0, "Treatment of Diesel Generator (DG) Technical Specification Frequency and Voltage Tolerances"

May 20, 2015

Name	Organization
Gordon Clefton	Nuclear Energy Institute (NEI)
Jack Stringfellow	PWROG
Steven Hutchins	NEI
Jonathan Rowley	U.S. Nuclear Regulatory Commission (NRC)
David Alley	NRC
John Lubinski	NRC
Robert Wolfgang	NRC
Jacob Zimmerman	NRC
Singh Matharu	NRC
Peter Snyder	NRC
MaryJane Ross-Lee	NRC
Hari Kodali	NRC
James Andrachek	Westinghouse Electric Company
Robert Carritte	MPR Associates
Erin Tindall	MPR Associates
Thomas Koshy	NRC
Lynnea Wilkins	NRC
Robert Slough	Luminant Power
Roy Mathew	NRC
Adakou Foli	NRC
Jonathan Nay	MPR Associates
Chad Holderbaum	Westinghouse Electric Company

Enclosure