

November 2, 2000

MEMORANDUM TO: Cynthia A. Carpenter, Chief  
Generic Issues, Environmental, Financial  
and Rulemaking Branch  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

FROM: Peter C. Wen, Project Manager /RA/ Signed by P. Wen  
Generic Issues, Environmental, Financial  
and Rulemaking Branch  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF OCTOBER 27, 2000, MEETING WITH THE NUCLEAR  
ENERGY INSTITUTE REGARDING GRID RELIABILITY ISSUES

On October 27, 2000, a public meeting was held at the Nuclear Regulatory Commission (NRC) offices in Rockville, Maryland. The participants included members of the NRC staff and representatives from the Nuclear Energy Institute (NEI), the Institute of Nuclear Power Operations (INPO), North American Electric Reliability Council (NERC), and Electric Power Research Institute (EPRI). Attachment 1 lists attendees at the meeting, and Attachment 2 contains the meeting agenda.

As a result of a low switchyard voltage event that occurred at Callaway on August 11, 1999, the staff sent, on March 2, 2000, a letter to NEI requesting the industry's assistance in addressing the low switchyard voltage issues as a voluntary industry initiative. On May 18, 2000, industry representatives briefed the staff on their operational experiences and planned actions related to these issues (refer to ADAMS Accession Number ML003722320 for a summary of that meeting). This October 27 meeting was a follow-up to the May 18 meeting and an NEI letter dated June 26, 2000, to discuss further the related grid voltage adequacy issues and to provide the status of industry efforts in this area.

The staff opened the meeting by summarizing its perspective on the issue. The staff expressed its interest in seeing an industry approach that provides high confidence that design basis criteria in a deregulated and changing ownership environment are maintained at each nuclear power plant.

NEI discussed issues involving grid voltage adequacy for nuclear power plants and plans for an industry workshop on nuclear power plant grid reliability. Representatives from INPO and EPRI made presentations on their initiatives and experience related to ensuring adequate grid voltage to nuclear power plants. Their discussions are summarized as follows:

- INPO - INPO issued a Significant Operating Experience Report (SOER) 99-1, "Loss of Grid," to its members and provided five recommendations to help ensure barriers that protect nuclear power plants from grid loss or degradation are in place. INPO reported that 14 stations/27 nuclear units have been evaluated for implementation of the SOER recommendations at this time. INPO noted that implementation of the SOER recommendation for audited stations had the following results: 61.5% satisfactory; 37% satisfactory plans in place for completion; and 1.5% unsatisfactory. INPO plans to complete SOER evaluations at the remaining nuclear power plants by June 2002. INPO's presentation material is attached as Attachment 3.
- EPRI - EPRI provided an overview of the Power Delivery Reliability Initiative, a 5 million dollar program with the goal of reducing the North American grid vulnerability to disruption of service. The initiative has the following objectives: (1) perform a probabilistic risk assessment study for the three interconnections and (2) develop near term tools for enhancing reliability. The subject work is closely coordinated with related NERC activities. In addition, EPRI is developing ways to integrate grid status information into the nuclear units' configuration risk monitors. EPRI also covered the loss of off-site power experience at nuclear power plants. EPRI's presentation material is attached as Attachment 4.
- NEI - A draft agenda for a proposed industry workshop entitled, "Grid Reliability at Nuclear Power Plants," to be held in April of 2001, was distributed for comment. The goal of the workshop is to facilitate a broader sharing of licensee practices, insights and activities on grid reliability issues. The staff suggested that one session be held on issues related to degraded voltage and double sequencing scenarios and each NERC region should have nuclear plant participation. NEI's draft agenda is attached as Attachment 5.

The staff discussed its concerns regarding the adequacy of grid voltage and stated the need to establish and maintain provisions that, in time of deregulation and ownership changes, assure that reliable offsite power is available in accordance with current licensing basis for all licensees.

NEI stated that they will coordinate with Ronaldo Jenkins, NRC, over the next two weeks regarding the details of the proposed NEI/INPO workshop.

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DISTRIBUTION: MTG. SUMMARY w/NEI Re Grid Voltage issues Dated 11/02/00

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ADAMS

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RGEb r/f

OGC

ACRS

PWen

RJenkins

EMail

SCollins/RZimmerman

BSheron

JJohnson

DMatthews/CAder

CCarpenter

SWest

JStrosnider

RWessman

JCalvo

CHolden

RJenkins

JLazevnick

D O'Neal

M Wegner, RES

M Satorius, OEDO

W Ruland, OEDO

OPA

**NRC/NEI GRID VOLTAGE MEETING  
LIST OF ATTENDEES  
October 27, 2000**

<u>NAME</u>	<u>ORGANIZATION</u>
Dick Wessman	NRR/DE
Cornelius Holden	NRR/DE/EEIB
Ronaldo Jenkins	NRR/DE/EEIB
James Lazevnick	NRR/DE/EEIB
Daniel O'Neal	NRR/DSSA/SPSB
Mary Wegner	RES/DET/ERAB
William Ruland	NRC/OEDO
Peter Wen	NRR/DRIP/RGEB
Dave Modeen	NEI
John Butler	NEI
John Maciejewski	INPO
Stephen Lee	EPRI
Frank Rahn	EPRI
Gary Vine	EPRI
Bob Cummings	NERC
Fred Madden	STARS
Roger Huston	Licensing Support Services
Millan Straka	NUSIS
Richard Sujwman	Morgan, Lewis & Bockius
Paul Gunter	NIRS
Nancy Chapman	Serch/Bechtel

AGENDA FOR NRC/NEI  
MEETING ON ELECTRICAL GRID RELIABILITY ISSUES

October 27, 2000; 8:30 a.m. - 11:30 a.m.  
U.S. Nuclear Regulatory Commission  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852-2738  
Room 9B4

- Opening Remarks Richard Wessman, NRC
- Introductions Dave Modeen, NEI
- Industry Recommendations on Grid Reliability and  
Summary of Results from Plant Evaluations John Maciejewski, INPO
- EPRI Power Delivery Reliability Initiative Stephen Lee/Frank Rahn, EPRI
- Discussion on Plans for Industry Workshop on  
Nuclear Power Plant Grid Reliability John Butler, NEI
- Conclusions Richard Wessman, NRC and  
Dave Modeen, NEI