

**NRCREP Resource**

**From:** Malcolm, Scott [malcolms@aecl.ca]  
**Sent:** Friday, July 25, 2008 11:08 AM  
**To:** NRCREP Resource  
**Cc:** jmacdonald@mirion.com; Satish Aggarwal; John.Disosway@dom.com; Attarian, George; Harvey.Leake@aps.com  
**Subject:** IEEE NPEC Comments on Draft Regulatory Guide DG-1195  
**Attachments:** IEEE 08\_07\_25.pdf

3

5/22/08

73 FR 28491

Dear Sir or Madam:

The attached comments on draft regulatory guide DG-1195 are submitted by the IEEE Nuclear Power Engineering Committee (NPEC). These comments were provided by the membership of NPEC Sub-committee 4 (SC-4, Auxiliary Power) that has responsibility for IEEE Standards relating to Electrical Equipment for Nuclear Power Generating Stations. The comments have been reviewed and approved by AdCom, the governing body of NPEC, and as such represent a consensus position of NPEC.

Very truly yours,

Scott Malcolm  
Chair,  
IEEE Nuclear Power Engineering Committee

<<IEEE 08\_07\_25.pdf>>

RECEIVED

2008 JUL 28 PM 2:38

RULES AND DIRECTIVES  
BRANCH  
USNRC

**CONFIDENTIAL AND PRIVILEGED INFORMATION NOTICE**

This e-mail, and any attachments, may contain information that is confidential, subject to copyright, or exempt from disclosure. Any unauthorized review, disclosure, retransmission, dissemination or other use of or reliance on this information

SONSE Review Complete  
Template = ADM--013

L-REDS = ADM-03  
Call = M. ORR (mp01)  
S. Aggarwal (SKA)

may be unlawful and is strictly prohibited.

## AVIS D'INFORMATION CONFIDENTIELLE ET PRIVILÉGIÉE

Le présent courriel, et toute pièce jointe, peut contenir de l'information qui est confidentielle, régie par les droits d'auteur, ou interdite de divulgation. Tout examen, divulgation, retransmission, diffusion ou autres utilisations non autorisées de l'information ou dépendance non autorisée envers celle-ci peut être illégale et est strictement interdite.



**IEEE POWER ENGINEERING SOCIETY  
NUCLEAR POWER ENGINEERING COMMITTEE**

**CHAIR**

J. Scott Malcolm  
AECL  
2251 Speakman Drive  
Mississauga, Ontario  
L5K 1B2, Canada  
VOX: 905 823-9040 / FAX 905 403-7391  
[malcolms@aecl.ca](mailto:malcolms@aecl.ca)

**VICE-CHAIR**

John D. MacDonald  
IST-Conax Nuclear, Inc.  
402 Sonwil Drive  
Buffalo, NY 14225 USA  
VOX: 716-681-1973 / FAX: 716 681-1139  
[j.d.macdonald@ieee.org](mailto:j.d.macdonald@ieee.org)

**SECRETARY**

Satish K. Aggarwal  
U.S. Nuclear Regulatory Commission  
11545 Rockville Pike  
Rockville, MD 20852 USA  
VOX: 301 415-6005 / FAX: 301 415-5074  
[SKA@NRC.gov](mailto:SKA@NRC.gov)

**PAST CHAIR**

John J. Disosway  
Dominion-North Anna Power Station  
P.O. Box 402  
Mineral, VA 23117-USA  
VOX: 540 894-2589 / Fax: 540 894-2178  
[john\\_disosway@dom.com](mailto:john_disosway@dom.com)

**Sub-Committee Chairs****SC-2 Qualification**

Nissen Burstein  
AREVA NP, Inc.  
3315 Old Forest Road  
Lynchburg, VA 24506 USA  
VOX: 434 832-2501 / FAX: 434 832-2683  
[nmb@ieee.org](mailto:nmb@ieee.org)

**SC-3 Operations, Surveillance and Testing**

George Ballassi  
General Dynamics  
Electric Boat Corporation  
75 Eastern Point Road  
Groton, CT 06340 USA  
VOX: 860 433-3389 / FAX: 860 433-1190  
[gballass@ebmail.gdcb.com](mailto:gballass@ebmail.gdcb.com)

**SC-4 Auxiliary Power**

Harvey Leake  
Arizona Public Service - Palo Verde NPS  
PO Box 52034, M/S 7588  
Phoenix, AZ 85072-2034 USA  
VOX: 623 393-6986 / FAX: 623 393-6249  
[h.c.leake@IEEE.org](mailto:h.c.leake@IEEE.org)

**SC-5 Human Factors, Control Facilities and Reliability**

Stephen Fleger  
Science Application International Corp.  
1710 SAIC Drive, M/S T-1-12-3  
McLean, VA 20170 USA  
VOX: 202 493-3378 / FAX 202 493-3390  
[flegers@SAIC.com](mailto:flegers@SAIC.com)

**SC-6 Safety Related Systems**

Michael Miller  
Duke Energy - Oconee Nuclear Station  
7800 Rochester Highway  
Seneca, SC 29672 USA  
VOX: 864 885-4411 / FAX: 864 885-4173  
[mhmillerr@duke-energy.com](mailto:mhmillerr@duke-energy.com)

**Standards Coordinator**

Paul L. Yanosy, Sr.  
Westinghouse Electric, Co.  
4350 Northern Pike  
Monroeville, PA 15146 USA  
VOX: 412 374-6402 / FAX: 412 374-6458  
[paul.l.yanosy@us.westinghouse.com](mailto:paul.l.yanosy@us.westinghouse.com)

**Awards Chair**

Daniel F. Brosnan  
PG&E Diablo Canyon PP  
P.O. Box 56  
Avila Beach, CA 93424 U/SA  
VOX: 805 545-6646 / FAX: 805 545-6515  
[dfb4@pge.com](mailto:dfb4@pge.com)

July 25, 2008

Rulemaking, Directives and Editing Branch  
Office of Administration  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Subject: Comments on Draft Regulatory Guide DG-1195  
"Draft Regulatory Guide DG-1195 Availability of  
Electric Power Sources"

Dear Sir or Madam:

The attached comments on draft regulatory guide DG-1195 are submitted by the IEEE Nuclear Power Engineering Committee (NPEC). These comments were provided by the membership of NPEC Sub-committee 4 (SC-4, Auxiliary Power) that has responsibility for IEEE Standards relating to Electrical Equipment for Nuclear Power Generating Stations. The comments have been reviewed and approved by AdCom, the governing body of NPEC, and as such represent a consensus position of NPEC.

As noted, these comments are the consensus position of the Nuclear Power Engineering Committee. For follow-up or questions, please contact Mr. Harvey Leake, Chair of SC-4, through the contact information provided in the left hand column of the letter.

Sincerely,

J. Scott Malcolm  
Chair, Nuclear Power Engineering Committee

Cc: NPEC Executive  
Harvey Leake (SC 4 Chair)  
George Attarian (WG 4.6 Chair)



IEEE Nuclear Power Engineering Committee  
Sub-Committee 4, Auxiliary Power – Comments on NRC DG1195 from  
Working Group 4.6, IEEE Standard 765 "IEEE Standard for Preferred Power Supply  
(PPS) for Nuclear Power Generating Stations"

**Comment #1.** The statement: "Additionally, the nuclear power plant operator should know the grid's condition before taking pertinent risk-significant equipment out-of service, and should monitor it for as long as the equipment remains out-of-service", is outside of the stated purpose of this document, which is: "operating procedures and restrictions that the staff of the U.S. Nuclear Regulatory Commission (NRC) considers acceptable for implementation if the available electric power sources are less than the limiting conditions for operation (LCO)." Taking a risk-significant piece of equipment out of service is not the same as an available electric power source being less than the LCO. This seems to be a 10 CFR 50.65 consideration rather than a technical specification one.

**Comment #2.** The underlined portion of the following statement is not a viable requirement: Plant operators should be aware of ... situations that can result in a loss of offsite power or inadequate voltage following a trip of the plant or other transmission contingencies (which could potentially degrade the offsite power supplies) identified by the grid operator. If the offsite power system is not capable of providing the requisite power in either situation, the system should be declared inoperable...

There are always contingencies that, should they occur, could render one or both offsite supplies inoperable, but the fact that the contingencies exist does not mean that the supplies should be declared inoperable. For example, the contingency of loss of an offsite power supply circuit is always a possibility, and such an event would always render that particular supply inoperable. Obviously, the supply should not be declared inoperable just because there is a possibility that it could be lost. This seems to be an attempt to impose a new requirement that the transmission system be single-failure proof. GDC-17 contains no such stipulation, and this approach ignores risk-informed considerations.

**Comment #3.** The following is not meaningful: "The LCO of nuclear power plants are met when all electric power sources required by GDC 17 are available and... capable of withstanding a system contingency such as... loss of power from the transmission network..." A power source cannot be capable of withstanding loss of itself.

**Comment #4.** Not clear what is meant by: "the time required to detect and restore an unavailable offsite source is generally much less, especially when the grid operator uses real-time contingency analysis". The use of real-time contingency analysis does not improve the time to restore a tripped or damaged transmission line, for example. Unclear what the relevance is of real-time contingency analysis to this section.

**Comment #5.** The Reg. Guide references the need for good communications between the system operator and the Nuclear Power Plant operator. However the guide falls short of clearly establishing that the continued operation of the Nuclear Plant under certain grid conditions has a stabilizing effect and can contribute to the stabilization of the grid and the continued availability of offsite power should it be needed immediately after the grid disturbance. Good communications should be a two way street: Advance notice of grid conditions for NPP actions relating to voluntary changes to internal plant systems (eg. On Site 1E power systems redundancy reduction); and also a vehicle for system operations to request continued NPP operations even when degraded off site power conditions exist.

IEEE Nuclear Power Engineering Committee  
Sub-Committee 4, Auxiliary Power – Comments on NRC DG1195 from  
Working Group 4.6, IEEE Standard 765 “IEEE Standard for Preferred Power Supply  
(PPS) for Nuclear Power Generating Stations”

**Comment #6.** Tech Specs generally require administrative controls for power reduction, assuming degraded grid relaying doesn't initiate a shutdown. Administrative response times are relatively long in comparison to the duration of most grid disturbances. However, grid restoration activities take a lot longer and the prospect of wholesale nuclear power plant shutdowns during a restoration period should be troubling to NERC and the NRC.

The deterministic approach of adhering to tightly defined Tech Spec LCOs fails the risk informed regulation litmus test when applied to situations where the challenge to the availability of Off site power originated with the grid and not locally to the plant.

The Reg guide should address the appropriate handling of communications between System and Plant operators where a decision to remain connected to the grid during and after a major grid disturbance is involved and the availability of Off Site power has been compromised.

**Comment #7.** Page 2, first bullet - This statement is incorrect. GDC 17 only requires that one offsite circuit be available within a few seconds following a design basis accident (DBA). The second paragraph clarifies that this is the requirement.

**Comment #8.** In general, Tech Specs for offsite power are inadequate since they do not address switchyard voltage requirements and contingencies. Based on GL 2006-02, the industry was forced to impose the same LCO on a degraded switchyard voltage scenario (following a unit trip contingency) as a failure of the offsite power source (i.e. startup transformer). There should be separate action statements and times for these two scenarios. Physically not having the capability to connect to offsite power is a lot worse condition than having degraded voltage for a short duration. Also, most Tech Spec requires a unit shutdown within 24 hours if offsite power source is not available. Obviously, this makes no sense since you are better off staying on line than shutting down on your EDGs. Perhaps a reduction in power would be appropriate. NRC should work with NEI to develop standard Tech Spec changes to address these deficiencies.