

Docket file



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

April 14, 1993

Docket No. 50-461

Mr. Frank A. Spangenberg
Manager - Licensing and Safety
Clinton Power Station
P. O. Box 678
Mail Code V920
Clinton, Illinois 61727

Dear Mr. Spangenberg:

SUBJECT: REGULATORY GUIDE 1.97 - BOILING WATER REACTOR NEUTRON FLUX
MONITORING - CLINTON POWER STATION (TAC NO. M77955)

Section 6.2 of Generic Letter 82-33 requests applicants and licensees to provide a report on their implementation of Regulatory Guide (R.G.) 1.97, Revision 2, and methods for complying with the Commission's regulations - including supporting technical justification of any proposed deviations or alternatives. A large number of deviation requests were received from Boiling Water Reactor (BWR) applicants and licensees concerning neutron flux monitoring instrumentation. These requests were initially denied.

In support of these requests, the BWR Owners' Group submitted NEDO-31558, "Position on NRC Regulatory Guide 1.97, Revision 3, Requirements for Post-Accident Neutron Monitoring System." NEDO-31558 proposes alternate criteria for neutron flux monitoring instrumentation in lieu of the Category 1 criteria stated in R.G. 1.97.

The staff has completed its evaluation of NEDO-31558 and by letter to the BWR Owners' Group (copy enclosed) dated January 13, 1993, issued a safety evaluation. The safety evaluation concluded that, for current BWR operating license and construction permit holders, the criteria of NEDO-31558 are acceptable. However, for new license applications for both conventional and advanced BWR designs, the R.G. 1.97 criteria must be met for neutron flux monitoring instrumentation. The staff further concluded that Category 1 neutron flux monitoring instrumentation is not needed for existing BWRs to cope with a Loss-of-Coolant Accident, Anticipated Transient Without Scram, or other accidents that do not result in severe core damage conditions. Instrumentation to monitor the progression of core melt accidents is best addressed by the current severe accident management program.

You are requested to review your neutron flux monitoring instrumentation against the criteria of NEDO-31558 to determine whether you meet these criteria, and provide a letter to the NRC documenting the results of your review. If you do not meet the criteria, you should either make a commitment to meet the criteria and state when this commitment will be fulfilled, or

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explicitly state any deviations from the criteria and provide supporting justification.

The criteria of NEDO-31558 include the use of uninterruptible and reliable power sources. The BWR Owners' Group and the staff agree that redundant neutron flux monitoring channels should be powered from different uninterruptible power supplies (UPS) so that loss of a single UPS would not cause the loss of all channels. You are, therefore, requested to perform a plant-specific evaluation to review the power supplies to neutron flux monitoring instrumentation, including recorders. This review should verify that power would not be lost during design basis events by load shedding logics or similar schemes, and that a single power supply failure would not cause the loss of all channels. The results of this review should be indicated in your response to the staff concerning this issue.

Since neutron flux monitoring instrumentation for BWRs is no longer considered to be Category 1 instrumentation, you may request the removal of neutron flux monitoring instrumentation from your post-accident monitoring technical specifications. If you wish to maintain a post-accident monitoring technical specification on this instrumentation, you may do so.

Please notify the NRC, within 60 days of receipt of this letter, of the actions you plan to take and your schedule for implementation. If you have any questions regarding this issue, please do not hesitate to contact me at (301) 504-1324.

This request for information was approved by the Office of Management and Budget under clearance number 3150-0011 which expires June 30, 1994. Comments on burden and duplication may be directed to the Office of Management and Budget, Reports Management Room 3208, New Executive Office Building, Washington, D.C. 20503.

Sincerely,

Original signed by:

Douglas V. Pickett, Project Manager
Project Directorate III-2
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

DISTRIBUTION:

Enclosure:
As stated

cc w/enclosure:
see next page

Docket File	NRC & Local PDRs
PDIII-2 r/f	JRoe
JZwolinski	JDyer
CMoore	DPickett
BClayton, RIII	AHansen
BMarcus	ACRS(10)
OGC	

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DPickett
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JDyer
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Mr. Frank A. Spangenberg
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