CATEGORY 1

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9705080257 DOC.DATE: 97/05/01 NOTARIZED: NO DOCKET #
FACIL:50-220 Nine Mile Point Nuclear Station, Unit 1, Niagara Powe 05000220
AUTH.NAME AUTHOR AFFILIATION
MCCORMICK,M.J. Niagara Mohawk Power Corp.
RECIP.NAME RECIPIENT AFFILIATION
Document Control Branch (Document Control Desk)

SUBJECT: Forwards responses to questions re 960311 submittal re verification of seismic adequacy of mechanical & electrical equipment.

DISTRIBUTION CODE: A025D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 5
TITLE: Seismic Qualification of Equipment in Operating Plants - A-46 - GL-87

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	OGC/HDS3	1	1	PD1-1 PD	1	1
	HOOD,D	1	1			
INTERNAL:	ACRS	1	1	FILE CENTER 01	1	1
	NRR/DE	1	1	NRR/DE/ECGB	1	1
	NRR/DE/EMEB	2	2	NRR/DRCH/HHFB	1	1
	NRR/DRCH/HICB	1	1	NRR/DRPE/PD1-3	1	1
	NRR/DSSA/SRXB	1	1			
EXTERNAL:	NRC PDR	1	1			

C A T E G O R Y 1 D O C U M E N T

NOTE TO ALL "RIDS" RECIPIENTS:
PLEASE HELP US TO REDUCE WASTE. TO HAVE YOUR NAME OR ORGANIZATION REMOVED FROM DISTRIBUTION LISTS OR REDUCE THE NUMBER OF COPIES RECEIVED BY YOU OR YOUR ORGANIZATION, CONTACT THE DOCUMENT CONTROL DESK (DCD) ON EXTENSION 415-2083

TOTAL NUMBER OF COPIES REQUIRED: LTTR 14 ENCL 14

NIAGARA MOHAWK
GENERATION
BUSINESS GROUP

NINE MILE POINT NUCLEAR STATION/LAKE ROAD, P.O. BOX 63, LYCOMING, NEW YORK 13093/TELEPHONE (315) 349-2660
FAX (315) 349-2605

MARTIN J. McCORMICK JR. P.E.
Vice President
Nuclear Engineering

May 1, 1997
NMP1L 1215

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

RE: Nine Mile Point Unit 1
Docket No. 50-220
DPR-63

Subject: ***Response to Request for Additional Information Regarding Verification of Seismic Adequacy of Mechanical and Electrical Equipment (TAC No. M69461)***

Gentlemen:

Attached are the responses to the questions forwarded by the Staff on March 11, 1997, regarding our submittal of March 11, 1996 (NMP1L 1044) associated with Unresolved Safety Issue (USI) A-46. For convenience we have reformatted and reproduced each question followed by the Niagara Mohawk response.

Very truly yours,

M. J. McCormick Jr.
Vice President - Nuclear Engineering

080022
MJM/AFZ/cmk
Attachments

xc: Mr. H. J. Miller, NRC Regional Administrator, Region I
Mr. S. S. Bajwa, Acting Director, Project Directorate I-1, NRR
Mr. B. S. Norris, Senior Resident Inspector
Mr. D. S. Hood, Senior Project Manager, NRR
Records Management

A025 1/1

ATTACHMENT A

Nine Mile Point Unit 1
Docket No 50-220
DPR-63

Response to Request for Additional Information Regarding Verification of Seismic Adequacy of Mechanical and Electrical Equipment in Operating Reactors

a.1 Q. Describe the process used by the Operations Department to review the SSEL and verify it was consistent with the A-46 requirements. Discuss changes made (if any) to your normal, abnormal, and emergency operating procedures as a result of your review effort.

A. A review of Nine Mile Point Unit 1 (NMP-1) Safe Shutdown Equipment List (SSEL) was performed by the Plant Operations Department in accordance with Section 3.7 of the Seismic Qualification Utility Group (SQUG) Generic Implementation Procedure (GIP). Changes made to NMP-1 procedures were limited to an abnormal procedure (Special Operating Procedures at NMP-1). This event specific procedure (Seismic Event) was revised to provide instructions for resetting SSEL equipment affected by seismic induced relay chatter.

a.2 Q. What, if any, simulator scenarios or walkdowns of local operator actions were performed to ensure that operators are able to place the plant in a safe shutdown condition following the postulated seismic event?

A. Breakers which may trip due to the postulated seismic event were walked down to verify that amplifying instructions were not required in addition to "skill of the craft knowledge". Following procedure revision, simulator scenarios were modified to incorporate sporadic equipment tripping.

a.3 Q. Describe the reviews that were performed to determine if any local operator actions required to safely shutdown the reactor could be affected by potentially adverse environmental conditions (such as loss of lighting, excessive heat or humidity, or in-plant barriers) resulting from the design basis earthquake (DBE).

A. During the development of the GIP criteria and guidelines, and the training courses on the use of the criteria and guidelines, diminished lighting due to loss of offsite power was considered and addressed. The potential for barriers such as damaged equipment or structures which could inhibit an operator's ability to access plant equipment was also considered and found to be unlikely. Earthquake experience has shown that typical industrial grade equipment and structures are inherently rugged and not susceptible to damage at A-46 plant SSE levels. For these reasons it is also considered very unlikely that operators will be faced with hazardous or unfamiliar circumstances which are not covered by existing plant procedures and training.

a.4 Q. Describe the reviews that were conducted to ensure that operators have adequate time and resources to respond to such events.

A. Desk top electrical print reviews, plant walkdowns, and simulated plant job performance were utilized to confirm breaker reset requirements to ensure operators have adequate time and resources to respond to such events. Major SSEL equipment required to cope with the postulated seismic event can be reset from the control room. Those components requiring resetting from outside the control room are not immediately time dependent and require no additional resources.

b.1 Q. Section 10, "Third Party Audit Summary," of the Seismic Evaluation Report notes that a problem report was written to address the "tieing down of the control room ceiling tiles." Has this problem been resolved? If not, what is your current schedule for resolution?

A. This problem has been resolved by tieing the aluminum diffusers in the control room ceiling to the metal grids using an engineering approved method.

b.2 Q. Section 10 also indicated that the Control Room and Auxiliary Control Room panels are outliers. It appears from Table 5-3, "Equipment Outlier Description and Resolution Summary," that these panels will be modified to provide more substantial anchorage. Have these issues been resolved? If not, what is your current schedule for resolution?

A. These issues have been resolved. The anchorage for the Control Room and Auxiliary Control Room panels have been modified to resolve this matter.

c.1 Q. Operator actions are noted to involve the Control Room Chillers, the pilot control valves for the Control Room Chillers, and the 24VDC Battery Chargers. For each of these, describe the evaluations conducted to ensure that operator actions and the timing of those actions are adequate to ensure safe shutdown of the plant. Also for each, describe the status indications and controls necessary to reset the equipment and the approximate time available for the operators to reset the equipment following the postulated seismic event. What training and exercises have been provided or planned to ensure that operators are capable of taking the required actions to reset this equipment within the available time?

A. The loss of the Control Room Chillers and 24VDC Batteries are annunciated in the Control Room on Panel L1 and A3, respectively. The Control Room Chillers are reset locally, at TB Elev 300 on MCC 1671, directly above the Control Room, and restarted on N Panel in the Control Room. The 24VDC Battery Charger Breakers are reset and closed locally, on TB Elev 277, approximately 80 ft from the Control Room door. The Control Room Chiller reset is accomplished by depressing the breaker thermal overload reset. The 24VDC Battery Chargers are reset by placing the breaker in the off position then reclosing the breaker. No additional training or exercises were required to ensure the operators are capable of taking the required actions because the resets are "skill of the craft". The recovery of the Control Room Chillers and 24VDC Battery Chargers is not time critical to achieve safe shutdown, since both have been previously evaluated to be out of service for at least four (4) hours to comply with the Station Blackout Rule. However, the timely recovery of this equipment by the operators is assured as a specific step is provided in the special operating procedure.

c.2 Q. Describe the review conducted to ensure that adverse environmental conditions (such as loss of lighting, excessive heat or humidity) or in-plant barriers postulated to exist following the DBE would [not] prevent the local operator actions required to reset the 24VDC Battery Chargers.

A. As discussed in the response to question a.3, diminished lighting due to loss of offsite power was considered in the development of the GIP criteria and guidelines and the training courses on the use of the criteria and guidelines. The potential for barriers which could inhibit an operator's ability to access plant equipment was also considered and found to be unlikely. Earthquake

experience has shown that typical industrial grade equipment and structures are inherently rugged and not susceptible to damage at A-46 plant SSE levels. For this reason it is also considered very unlikely that operators will be faced with hazardous or unfamiliar circumstances which are not covered by existing plant procedures and training.

d.1 Q. Are the operator actions associated with resetting the SSEL equipment affected by the postulated contact chatter considered to be routine and consistent with the skill of the craft? If not, what operator training and operational aids were developed to ensure the operators will perform the actions required to reset the affected equipment? Discuss specific changes to current practices affecting safe operator performance to include training, simulator scenarios and equipment restrictions such as resetting equipment switches, as necessary.

A. The operator actions associated with resetting the SSEL equipment affected by the postulated contact chatter is considered "skill of the craft". With the exception of Control Room Chillers and 24VDC Battery Chargers, the other SSEL equipment affected by contact chatter may be restored in the Control Room through use of normal control switches. During training on the Special Operating Procedure for seismic events the current practice of contacting Electrical Maintenance prior to reclosing or resetting a tripped breaker was changed. The operators were instructed to assume contact chatter had caused the loss of equipment and at the end of ground motion one reclosure or reset was acceptable to recover SSEL equipment.