September 22, 1994

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

Dear Sir:

The enclosed Licensee Event Report number 94-006-00, Docket No. 50-304/DPR-48 from Zion Generating Station is being transmitted to you in accordance with the requirements of 10CFR50.73(a)(2)(vii), which requires a 30 day written report for any event where a single cause or condition caused at least one independent train or channel to become inoperable in multiple systems or two independent trains or channels to become inoperable in a single system designed to: a) shutdown the reactor and maintain it in a safe shutdown condition; b) remove residual heat; c) control the release of radioactive material; or d) mitigate the consequences of an accident.

Very truly yours,

D.B.Wozniak for/

E. A. Broccolo
Station Manager
Zion Generating Station

EAB/neb

Enclosure: Licensee Event Report

cc: NRC Region III Administrator
      NRC Resident Inspector
      INPO Record Center
      CECo distribution List

270016

ZLER/394009.1er(6)

LICENSEE EVENT REPORT (LER)

Form Rev 3.0

Facility Name (1)	Docket Number (2)	Page (3)
Zion Unit 2	0 5 0 0 0 3 0 4	1 of 0 3

Title (4)

Safety Related 480V Motor Control Center Feed Breaker Overcurrent Setting was Below the Maximum Loading Value

Event Date (5)			LER Number (6)					Report Date (7)			Other Facilities Involved (8)	
Month	Day	Year	Year	/// /// ///	Sequential Number	/// /// ///	Revision Number	Month	Day	Year	Facility Names	Docket Number(s)
											Zion Unit 1	0 5 0 0 0 2 9 5
0 8	2 3	9 4	9 4	---	0 0 6	---	0 0	0 9	2 2	9 4		

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)				
		__ 20.402(b)	__ 20.405(c)	__ 50.73(a)(2)(iv)	__ 73.71(b)	
POWER		__ 20.405(a)(1)(i)	__ 50.36(c)(1)	__ 50.73(a)(2)(v)	__ 73.71(c)	
LEVEL		__ 20.405(a)(1)(ii)	__ 50.36(c)(2)	X 50.73(a)(2)(vii)	Other (Specify	
(10) 1 0 0		__ 20.405(a)(1)(iii)	__ 50.73(a)(2)(i)	__ 50.73(a)(2)(viii)(A)	in Abstract	
		__ 20.405(a)(1)(iv)	__ 50.73(a)(2)(ii)	__ 50.73(a)(2)(viii)(B)	below and in	
		__ 20.405(a)(1)(v)	__ 50.73(a)(2)(iii)	__ 50.73(a)(2)(x)	Text)	

LICENSEE CONTACT FOR THIS LER (12)

Name	TELEPHONE NUMBER	
		AREA CODE
Jeff Bergmann, Mod Design Engineering ext. 3863		7 0 8 7 4 6 - 2 0 8 4

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC- TURER	REPORTABLE TO NPRDS	////////	CAUSE	SYSTEM	COMPONENT	MANUFAC- TURER	REPORTABLE TO NPRDS	////////
A				N							
E											

SUPPLEMENTAL REPORT EXPECTED (14)		Expected Submission Date (15)	Month	Day	Year
__ YES (If yes, complete EXPECTED SUBMISSION DATE) X NO					

ABSTRACT (Limit to 1400 spaces, i.e. approximately fifteen single-space typewritten lines) (16)

As a result of the Lessons Learned Initial Notification 94-059 from Dresden Station regarding the inadvertent tripping of a safety-related Motor Control Center (MCC) during testing, a review of safety-related 480 VAC MCC [ED] supply breaker long-time overcurrent relay settings at Zion Station was initiated. This review was completed on 8/23/94 and showed that the feed breaker overcurrent relay setting feeding 480 Volt Motor Control Center (MCC) 2371 was lower than the maximum load shown in the Electrical Load Monitoring System (ELMS) program for Zion Station.

The cause of the event was personnel error. In 1981, the overcurrent relay setting on the feed breaker to MCC 2371 was determined based on the existing coincidental load on the MCC instead of the maximum allowable MCC load.

The safety significance of this event was minimal, as redundant equipment fed from other safety-related supplies exist that could have operated during an accident, and the health and safety of the public were not affected.

Corrective actions include securing the Prime Computer Room Air Conditioning unit (00V063), a non-safety load fed off of MCC 2371 to bring the maximum load value below the breaker setting, resetting the overcurrent relay setting during the 1995 Z2R13 outage, and determining that the other essential MCC's feed breaker overcurrent relay settings were set above the maximum coincidental load value.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION						Form Rev 3.0	

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			Page (3)	
		Year	/// /// ///	Sequential Number	/// /// ///	Revision Number	
Zion Unit 2	0 5 0 0 0 3 0 4	9 4	-	0 0 6	-	0 0	0 2 OF 0 3

TEXT   Energy Industry Identification System (EIIS) codes are identified in the text as [XX]

A.   CONDITION PRIOR TO EVENT

MODE __1__ - Power Operations   RX Power __100%__   RCS [AB] Temperature/ Pressure __563°F/2235__ psig

B.   DESCRIPTION OF EVENT

As a result of the Lessons Learned Initial Notification 94-059 from Dresden Station regarding the inadvertent tripping of a safety-related Motor Control Center (MCC) during testing, a review of safety-related 480 VAC MCC feed breaker overcurrent relay setting documentation at Zion Station was initiated. This review was completed on 8/23/94 and showed that the feed breaker long-time (overcurrent) amptector setting feeding 480 VAC MCC 2371 [ED] was lower than the maximum load shown in the Electrical Load Monitoring System (ELMS) program for Zion Station. The maximum load in ELMS is 230 amps. The amptector setting is 200 amps (+/-)10%. Documentation for all other safety-related MCC feed breaker overcurrent relay settings were also evaluated and they were all found to be set above the maximum coincidental load value.

An operational assessment was performed by the Modification Design Group to determine safety significance. This problem affected single trains of various safety-related equipment. All loads fed off of MCC 2371 including safety-related motor operated valves, air compressors, ventilation fans and timers were reviewed. Having reviewed the load list, the Prime Computer Room Air Conditioning(AC) Unit (00V063), a large non-safety-related load fed off of MCC 2371 with a redundant AC unit, was taken out of service. This brought the maximum load value below the breaker setting. In addition, the Prime Computer Room AC unit has six internal loads. Two of these loads, a fan and compressor, were returned to service which allow the AC unit to be run when needed. The maximum current remained below the overcurrent setting after these two loads were restored.

The other safety-related MCC feed breaker overcurrent relay settings were looked at and determined to be set above the maximum coincidental load value.

C.   APPARENT CAUSE OF EVENT

The cause of the event was personnel error. In 1981, the overcurrent relay setting on the feed breaker to MCC 2371 was determined based on the existing coincidental load on the MCC instead of the maximum allowable MCC load.

A contributing cause of the event was a management deficiency. The latest overcurrent relay setting change on the feed breaker to MCC 2371 was done in 1981. At that time, the overcurrent relay setting on 480V MCC 2371 feed breaker was determined by using the existing coincidental load on the MCC instead of the maximum allowable MCC load. The relay setting program in 1981 did not specifically require the breaker overcurrent setting to be set to the maximum allowable load on the MCC. Loads which were added in the early 1980's, after the latest long-time setting adjustment, did not result in a new setting change. It was assumed the feed breaker was set to carry the maximum allowable MCC load.

D.   SAFETY ANALYSIS OF EVENT

An operability assessment was performed to determine the safety significance associated with this event. Individual trains of safety-related equipment were affected such as motor operated valves, air compressors, ventilation fans, and timers. The safety significance was minimal as redundant equipment fed from other safety related supplies could have operated during an accident. Also, the maximum load on MCC 2371 occurs only with a loss of power to Unit 1 (MCC 1371) which is the normal feed to (2) of the larger loads (a compressor and vent fan) on MCC 2371. The health and safety of the public were not affected.

E.   CORRECTIVE ACTIONS

1.   Due to the fact that this event occurred in 1981, no further action on the personnel error will be taken.

2.   The relay setting program now in place requires the breaker overcurrent relay setting to be set considering the maximum allowable load on the MCC. Technical Information Manual TID-E/I&C-13, "480V Switchgear Trip Device Selection and Setting", provides guidance on this issue.

3.   The loads fed from MCC 2371 were considered and one of the Prime Computer AC units was chosen to be taken out of service as it is one of the larger loads and has no impact on plant operations or on nuclear safety. The (00V063) Prime Computer Room AC Unit was taken out of service which brought the maximum current below the overcurrent setting of the MCC supply breaker. The AC unit has six internal loads. A fan and compressor were later returned to service which allows the AC unit to be run when needed and the maximum current remains below the overcurrent setting after these two loads were restored.

4.   The 480V MCC 2371 breaker overcurrent relay setting will be reset based on the maximum allowable MCC load. Action request 940020025 was generated to facilitate the setting change. This will be accomplished during the 1995 Z2R13 outage. (304-180-94-00901)

TEXT   Energy Industry Identification System (EIIS) codes are identified in the text as [XX]

F.   PREVIOUS EVENTS

Review of the previous history on overcurrent relays has found no previous events of this nature at Zion Station.

G.   COMPONENT FAILURE DATA

None