



Commonwealth Edison
LaSalle County Nuclear Station
Rural Route #1, Box 220
Marseilles, Illinois 61341
Telephone 815/357-6761

January 10, 1992

Director of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Mail Station P1-137
Washington, D.C. 20555

Dear Sir:

Licensee Event Report #91-015-01, Docket #050-373 is being submitted to your office in accordance with 10CFR50.73(a)(2)(i) to correct typographical error, docket number 374 to 373 contained on pages 2 through 4.

for G. J. Diederich
Station Manager
LaSalle County Station

GJD/PAS/mkl

Enclosure

xc: Nuclear Licensing Administrator
NRC Resident Inspector
NRC Region III Administrator
INPO - Records Center
IDNS Resident Inspector

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LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1) LaSalle County Station Unit 1 Docket Number (2) 0150000373 Page (3) 1 of 04
 Title (4) Inadequate Testing Of Diesel Generators Due To Inadequate Procedures/Technical Specification Misinterpretation

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)
11	07	91	91	015	01	11	06	91	LaSalle Unit 2	0150000374
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)										
OPERATING MODE (9)			20.402(b) <input type="checkbox"/> 20.405(c) <input type="checkbox"/> 50.73(a)(2)(iv) <input type="checkbox"/> 73.71(b) <input type="checkbox"/> 20.405(a)(1)(i) <input type="checkbox"/> 50.36(c)(1) <input type="checkbox"/> 50.73(a)(2)(v) <input type="checkbox"/> 73.71(c) <input type="checkbox"/> 20.405(a)(1)(ii) <input type="checkbox"/> 50.36(c)(2) <input type="checkbox"/> 50.73(a)(2)(vii) <input type="checkbox"/> Other (Specify in Abstract below and in Text) <input type="checkbox"/> 20.405(a)(1)(iii) <input checked="" type="checkbox"/> 50.73(a)(2)(i) <input type="checkbox"/> 50.73(a)(2)(viii)(A) <input type="checkbox"/> 20.405(a)(1)(iv) <input type="checkbox"/> 50.73(a)(2)(ii) <input type="checkbox"/> 50.73(a)(2)(viii)(B) <input type="checkbox"/> 20.405(a)(1)(v) <input type="checkbox"/> 50.73(a)(2)(iii) <input type="checkbox"/> 50.73(a)(2)(x) <input type="checkbox"/>							

LICENSEE CONTACT FOR THIS LER (12)

Name Harold T. Vinyard, Technical Staff Engineer, Extension 2499 TELEPHONE NUMBER 815-357-6761
 AREA CODE 815

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
D	E	K		N					
A	E	K		N					

SUPPLEMENTAL REPORT EXPECTED (14)

Expected Submission Date (15) Month Day Year
☐ Yes (If yes, complete EXPECTED SUBMISSION DATE) ☒ NO

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

On November 7, 1991 at approximately 1500 hours, with Unit 1 and Unit 2 in Operational Condition 1 (Run) at 100% power, during a Nuclear Regulatory Commission (NRC) Electrical Distribution System Functional Inspection (EDSFI) it was determined, that certain Emergency Safety Feature (ESF) bus undervoltage relay contacts were not functionally tested as required by plant Technical Specification 4.8.1.1.2.d.4. The station was placed on a 24 hour timeclock and the required contact testing was commenced to fulfill the Technical Specification surveillance requirements.

On November 8, 1991, at 0900 hours it was determined that the allowance of the 24 hour period to perform the required surveillances was inappropriate and a late notification was made. Technical Specification 3.0.5 was entered. All testing was completed at 1030 hours on November 8, 1991.

The root cause of this event was inadequate testing procedures.

The safety consequences of this event were minimal. The 0, 1A, 2A, 1B, and 2B Diesel Generators were inoperable solely due to the missed surveillance and were fully functional throughout the event, except while each was undergoing testing in accordance with station corrective actions.

This event is being reported pursuant to 10CFR50.73(a)(2)(i) due to a deviation from plant Technical Specifications.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION												Form Rev 2.0	
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TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [XX]													

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor

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

A. CONDITION PRIOR TO EVENT

Unit(s): 1/2 Event Date: 11-07-91 Event Time: 1500 Hours

Reactor Mode(s): 1/1 Mode(s) Name: RUN/RUN Power Level(s): 100%/100%

B. DESCRIPTION OF EVENT

On November 7, 1991, at approximately 1500 hours, with Unit 1 and Unit 2 in Operational Condition 1 (RUN) at 100% power, it was determined that certain Emergency Safety Feature (ESF) bus undervoltage relay contacts (AP)(EB) were not functionally tested as required by plant Technical Specification 4.8.1.1.2.d.4. This Technical Specification requires verification that each ESF bus will deenergize and load shed during a simulated Loss Of Offsite Power (LOOP). The basis for this verification is to ensure that all permissives in the Diesel Generator (DG)(EK) output breaker auto-close logic are capable of being satisfied, thereby ensuring the DG can perform its design function should a real LOOP occur.

The class 1E power system at LaSalle supplies power to all ESF equipment necessary for safe shutdown of the reactor. This system is divided into three independent divisions per unit (Division 1, 2, and 3). Each division is supplied from a 4.16KV ESF bus with each bus having its own dedicated standby Diesel Generator, except for the Unit 1 and Unit 2 Division 1 busses which share a common swing Diesel Generator ("0" DG). Alternate or redundant components of all ESF systems are supplied from separate switchgear groups so that no single failure can jeopardize the proper functioning of redundant equipment. The division of ESF loads among the system busses is such that the total loss of any of the three divisions cannot prevent the safe shutdown of the reactor under any normal or abnormal design condition.

LaSalle Technical Surveillances LTS-800-104/204 (Division 1, 0 DG), LTS-800-105/205 (Division 2, 1A and 2A DG's), and LTS-800-106/206 (Division 3, 1B and 2B DG's) were written to satisfy the requirements of Technical Specification 4.8.1.1.2.d.4. These surveillances simulate a LOOP by manually tripping the normal feedbreaker to the ESF bus. Following the breaker trip, 1) deenergization of the ESF bus and load shedding is verified, 2) auto-start of the backup DG is verified, and 3) automatic reenergization of the ESF bus by its DG is verified. Review of these surveillances by the Nuclear Regulatory Commission NRC Electrical Distribution System Functional Inspection (EDSFI) team revealed that the undervoltage relay contacts used to trip the normal feedbreaker and unit tie breaker were not adequately tested by the station surveillance procedures. Since the normal feedbreaker was tripped manually during each surveillance, the undervoltage trip path for these breakers were never tested. In addition, the Division 1 and Division 2 unit tie breakers (these breakers connect each ESF bus to its alternate offsite power source) were not verified to trip on undervoltage during the Division 1 and Division 2 surveillances. Therefore, the 18 month surveillance requirement required by the station Technical Specification was not current.

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

B. DESCRIPTION OF EVENT (CONTINUED)

Station Management believed that existing regulatory guidance, including Generic Letter 87-09 and more recent correspondence, allowed 24 hours to perform a surveillance prior to declaring the equipment inoperable and entering a Limiting Condition for Operation (LCO), provided that the only reason for inoperability was the surveillance not being current.

However, on November 8, 1991 at 0900 hours it was determined that Generic Letter 87-09 could only be used if the station Technical Specification had been amended to specifically include the 24 hour allowance and that no other guidance could be located that allowed not entering the appropriate Technical Specification action statement immediately. During the previous 18 hours, five of the six Diesel Generators had been satisfactorily tested. The remaining untested bus diesel generator (Unit 1 Division II) was immediately declared inoperable. Because the Unit 2 Auxiliary Electric Equipment Room (VE) [VI] system was out of service for an unrelated problem (DVR 01-01-91-132), this action placed both LaSalle units under Technical Specification 3.0.5, which requires both LaSalle units to begin shutting down within two hours and be in cold shutdown within 24 hours. Testing on the final bus was completed satisfactorily at 1030 hours on November 8, 1991 and Technical Specification 3.0.5 was exited prior to exceeding the two hour timeclock.

ENS notification was initiated on November 8, 1991 at 1300 because with the Technical Specification required surveillance not current on all five station diesels, the plant could have been outside its design basis and a one hour ENS notification should have occurred in accordance with 10CFR50.72.b(1)(ii)(B). For these same reasons, the ability to provide a four hour notification in accordance with 10CFR50.72.b(2)(iii)(D) (loss of a safety function) had also elapsed.

C. APPARENT CAUSE OF EVENT

The root cause of this event was inadequate testing procedures. The surveillance procedures used to test bus undervoltage load shedding failed to address the undervoltage trip paths for the normal and unit tie bus feedbreakers. It is believed that this was an isolated incident, however, all Diesel Generator surveillances will be reviewed to ensure this.

The cause for the Technical Specification misinterpretation was administrative personnel error. It was believed that provisions for allowing the 24 hour timeclock were in place without actually verifying this fact. This belief was based on the NRC internal memorandum allowing a 24 hour timeclock for completion of a missed surveillance prior to declaring equipment inoperable, which is consistent with NRC Generic Letter 87-09. The decision to proceed with testing without declaring the diesel generators inoperable based on this guidance was discussed with the EDSFI team.

Further investigation the following day, however, revealed the NRC memorandum could not be located, and a determination was made that the guidance of NRC Generic Letter 87-09 could not be used since the station Technical Specifications were not yet amended to include this provision. At the time of this event, a Technical Specification change consistent with Generic Letter 87-09 had been submitted to the NRC, but had been returned to the station to provide additional information. The station was in the process of resubmitting the change. Upon recognition that a one hour notification should have been made the previous day, an ENS notification was initiated. By this time testing had shown all contacts to be operable, and that there was no longer a potential for the plant to be outside the design basis.

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

D. SAFETY ANALYSIS OF EVENT

The safety consequences of this event were minimal. The 0, 1A, 2A, 1B, and 2B Diesel Generators while technically inoperable were fully functional throughout the event, except while each was undergoing testing in accordance with station corrective actions. Station testing validated all undervoltage trip paths operated as designed.

E. CORRECTIVE ACTIONS

LaSalle Special Test LST-91-150 was written to test the questionable undervoltage trip paths for each ESF bus. The results of this test revealed all undervoltage trip paths operated as designed. Testing was completed at 1030 hours on November 8, 1991.

Long term corrective actions will be to revise station test procedures to include logic testing of the normal and unit tie bus feedbreaker undervoltage trip paths. Action Item Record (AIR) 373-180-91-12701 will track this action. It is believed that this case was an isolated incident, however, all Diesel Generator surveillances will be thoroughly reviewed to ensure proper testing of all ESF logic schemes. AIR 373-180-91-12702 will track this action.

A search was conducted to try to locate the correspondence relating to the NRC position on allowable times to complete missed surveillances, but the specific document that the individual remembers reviewing could not be located. In view of other guidance on this subject, it appears that the document in question may have been misinterpreted. The individual involved was counselled on the need for attention to detail in evaluating guidance and also on the need to ensure that such guidance is formally incorporated into station procedures.

All licensed station management and department heads will be trained on this event. AIR 373-180-91-12703 will track this action.

F. PREVIOUS EVENTS

LER Number	Title
LER 89-016-00	Diesel Generator Testing Inadequacy

G. COMPONENT FAILURE DATA

No component failed in this event.