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

March 16, 1990

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

Dear Sir:

Licensee Event Report #90-002-01, Docket #050-373 is being submitted to your office in accordance with 10CFR50.73(a)(2)(vii) and supersedes previous submitted report.

This supplement is to correct a typographical error in the Licensee Event Report number found on the cover letter of the previously submitted report, dated February 28, 1990.

for W R O'Connor
G. J. Diederich
Station Manager
LaSalle County Station

GJD/PSS/kg

Enclosure

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

IE22
1/1

LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1)	Docket Number (2)	Page (3)
LaSalle County Station Unit 1	0 5 0 0 0 3 7 3	1 of 0 5

Title (4) 1A Diesel Generator Governor Low on Oil Due to Oil Leak on Compensation Needle Valve Cover Plug Caused by Procedural Inadequacy

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)
										LaSalle Unit 2	0 5 0 0 0 3 7 4
0 1	2 9	9 0	9 0	---	0 0 2	0 1	0 3	1 6	9 0		0 5 0 0 0

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

LICENSEE CONTACT FOR THIS LER (12)

Name	TELEPHONE NUMBER
	AREA CODE
Paul Sampson, Technical Staff Engineer, extension 2704	8 1 5 3 5 7 - 6 7 6 1

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							

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)

On January 29, 1990 at approximately 2015 hours, with LaSalle Unit 1 in Operational Condition 1 (Run) at approximately 100% power, and Unit 2 in Operational Condition 1 (Run) at approximately 98% power, an Equipment Operator (EO) noticed that the oil in the 1A Diesel Generator (DG) Governor was low and could not be seen in the sight glass. At approximately 2230 hours on January 29, 1990, after filling the governor with oil to the proper level, the 1A DG was started, and proper operation of the governor was verified in accordance with LaSalle Operating Surveillance LOS-DG-M2, "1A (2A) Diesel Generator Operability Surveillance." Following the successful completion of LOS-DG-M2, the 1A DG was declared operable at approximately 0100 hours on January 30, 1990.

The apparent cause of the governor being low on oil was a slow leak coming from the compensation needle valve plug due to a used washer being replaced after the governor oil flush.

The safety consequences of this event were minimal. The manufacturer of the governor (Woodward) stated that the main purpose of keeping the governor full of oil is for cooling. The quantity of oil that the governor was missing would not have prevented the governor from performing its design function.

The proper amount of oil was added to the governor, and LOS-DG-M2 was performed to verify proper operation of the governor. Applicable procedures are being revised to prevent this type of leak from recurring, and to incorporate increased monitoring of the DG governor oil levels.

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: 1/29/90 Event Time: 2015 Hours

Reactor Mode(s): 1/1 Mode(s) Name: Run/Run Power Level(s): 100%/98%

B. DESCRIPTION OF EVENT

On January 29, 1990 at approximately 2015 hours, with LaSalle Unit 1 in Operational Condition 1 (Run) at approximately 100% power, and Unit 2 in Operational Condition 1 (Run) at approximately 98% power, an Equipment Operator (EO) noticed that the oil in the 1A Diesel Generator (DG) [EK] governor was low and could not be seen in the sight glass. The EO also noticed that the governor sight glass vented plug was missing. The EO immediately notified the Shift Foreman and Electrical Maintenance Foreman, to determine the type of oil used in the governor. The 1A DG was declared inoperable due to not being able to determine the oil level in the governor. The EO stated that after adding approximately 4 to 5 ounces of oil, the oil level could be seen in the sight glass. Approximately 5 to 10 more ounces of oil were added to fill the governor to the upper sight glass line (Maximum Fill Line). The missing sight glass vent plug was found on a DG skid support adjacent to the governor and was subsequently replaced.

At the time of the event, the Unit 2 "B" Residual Heat Removal (RHR) [BO] system was inoperable for preventive maintenance (valve inspections which included having lead shielding on RHR piping, relay calibrations, and cleaning of the "B" RHR pump seal cooler). Due to the "B" RHR system being inoperable, the Unit 2 Hydrogen Recombiner (HG) [BB] had also been declared inoperable for Unit 2 since the HG cooling water is supplied from the Unit 2 "B RHR system when the Unit 2 HG system is used for Unit 2. (The Unit 2 HG system is also used to support Unit 1, however the source of cooling water is Unit 1 RHR which was available.) Since the 1A DG is the emergency power supply for Unit 1 HG, and the Unit 2 HG was already inoperable, Technical Specification Action 3.0.3 was entered for Unit 2. Technical Specification 3.0.5 was the appropriate specification for this condition, however entry into 3.0.3 was conservative.

During the first hour of Technical Specification 3.0.3, preparations were begun to commence a Unit 2 reactor shutdown by reviewing proper procedures and verifying offsite power lineup.

B. DESCRIPTION OF EVENT (Continued)

The Station Operation Duty Officer (SDO) directed the Shift Engineer (licensed Senior Reactor Operator) to pursue getting the 2B RHR system back in service by clearing the out of services and removing the lead shielding. Upon completion of an operability surveillance, the 2B RHR system and the Unit 2 HG recombiner was declared operable and Technical Specification 3.0.3 was exited at 2140 hours on January 29, 1990. No load reduction was performed.

At approximately 2230 hours on January 29, 1990, after filling the governor with oil to the proper level, the 1A DG was started, and proper operation of the governor was verified by disturbing the engine fuel rack, and verifying that the governor returned the engine to normal speed without excessive oscillations (hunting). The 1A DG was subsequently loaded for one hour in accordance with LaSalle Operating Surveillance LOS-DG-M2, "1A (2A) Diesel Generator Operability Surveillance." Following the successful completion of LOS-DG-M2, the 1A DG was declared operable at approximately 0100 hours on January 30, 1990. The 1A DG was inoperable for approximately 4 hours and 45 minutes.

C. APPARENT CAUSE OF EVENT

The apparent cause of the governor being low on oil was a slow leak coming from the compensation needle valve plug. This plug, along with a copper washer, is used to prevent the oil that may leak past the needle valve threads from leaking out of the governor. Approximately a month and a half prior to this event, LaSalle Electrical Procedure LEP-DG-103, "Diesel Generator Governor Flush and Compensation Procedure," was performed on the 1A DG governor. Following the completion of the compensation adjustment, the needle valve plug and the original washer were reinstalled. After discussion with the governor manufacturer (Woodward), they stated that it is not required, but it is a good practice to replace the copper washer every time this plug is removed and reinstalled. This particular style of washer creates a seal when it is crushed by the plug. Once it has been crushed, it can be reused, however it may not seal as well. In this particular event, the used washer did not seal correctly, and the vented sight glass plug being removed probably increased the rate at which the oil leaked out. The small vent hole in the sight glass plug is the only vent port on the governor. The purpose of this vent hole is to allow the sight glass to indicate the proper oil level in the governor.

Presently, DG governor oil level is checked, but not documented, prior to the monthly operability surveillances. It is also occasionally checked during the Equipment Operator rounds, but it is not included in the rounds package.

D. SAFETY ANALYSIS OF EVENT

The safety consequences of this event were minimal due to the diesel generators capability to perform its design function was still available. The manufacturer of the governor (Woodward) stated that the main purpose of keeping the governor full of oil is for cooling. The quantity of oil that the governor was missing, would not have prevented the governor from performing its design function. The UG-8

D. SAFETY ANALYSIS OF EVENT (Continued)

governor used on LaSalle's diesels holds about one and a half quarts of oil if filled to the upper mark on the sight glass. The oil level is supposed to be maintained between the upper and lower marks on the sight glass. There is approximately 5 ounces of oil between the upper and lower sight glass marks. Based on the Operator's estimate of adding 4 to 5 ounces of oil to obtain a reading in the sight glass, and adding 5 to 10 more ounces to fill to the upper sight glass mark, the governor was low by a maximum of 15 ounces of oil. This amount of oil missing would not have prevented the governor from performing as designed. In addition, the internal hydraulic pumps, the power piston, the pilot valve, the pressure regulating accumulators, and compensation pistons are all located at the very bottom of the governor. These are the components that control the operation of the governor. Therefore, not taking into consideration the cooling function of the oil, the oil would have to be about one quart low to affect the operation of these components. The removal of the vented sight glass plug also does not affect the operation of the governor.

The consequences of this event could have been significant if the DG would have started on an auto start signal, and ran for an extended period of time without anyone noticing that the oil was low. In this case, the governor can be damaged from over heating. Oil can be added to the governor while the DG is running through the oil fill cap.

E. CORRECTIVE ACTIONS

During the first hour of Technical Specification 3.0.3, preparations were begun to commence a Unit 2 reactor shutdown by reviewing proper procedures and verifying off site power lineups.

The ODS directed the Shift Engineer to pursue getting the 2B RHR system back in service by clearing the out of services and removing the lead shielding. Upon completion of an operability surveillance, the 2B RHR system and the Unit 2 HG recombiner were declared operable and Technical Specification 3.0.3 was exited at 2140 hours on January 29, 1990.

The proper amount of oil was added to the governor, and LOS-DG-M2, "1A (2A) Diesel Generator Operability Test," was performed satisfactorily to verify proper operation of the governor. The 1A DG was declared operable at 0100 on January 30, 1990. An Operating Special Log was also initiated to monitor the 1A DG governor oil level until the compensation needle valve plug washer was replaced. The 1A DG needle valve plug washer was replaced and other DG governors inspected for leaks.

The Equipment Operators were canvassed to see if they have been removing the governor's sight glass plug to check oil level to determine the reason for it being removed. No reason could be determined on why the sight glass plug was removed.

E. CORRECTIVE ACTIONS (Continued)

To prevent the same type of leak from reoccurring, LaSalle Electrical Procedure LEP-DG-103, "Diesel Generator Governor Flush and Compensation Procedure," is being revised to incorporate installing a new copper washer when replacing the compensation needle valve plug. Action Item Record (AIR) 373-200-90-01801 has been initiated to track the completion of this procedure revision.

The Equipment Operator rounds packages have been revised to incorporate monitoring the DG governor oil levels daily. The DG monthly surveillance will be reviewed to determine if a revision is appropriate. AIR 373-200-90-01802 has been initiated to track the completion of this action.

F. PREVIOUS EVENTS

None.

G. COMPONENT FAILURE DATA

None.