

# CATEGORY

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9803130142 DOC.DATE: 98/03/05 NOTARIZED: NO DOCKET #  
FACIL:50-373 LaSalle County Station, Unit 1, Commonwealth Edison C 05000373  
AUTH.NAME AUTHOR AFFILIATION  
DAVENPORT,B. Commonwealth Edison Co.  
DACIMO,F. Commonwealth Edison Co.  
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 97-044-01:on 971205,potentially unanalyzed condition for  
ADS was noted.Caused by lack of design basis info.Determined  
licensing basis for ADS accumulator capacity & N supply  
(NTS 373-180-98-SCAQ00044.01).W/980305 ltr.

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Commonwealth Edison Company  
LaSalle Generating Station  
2601 North 21st Road  
Marseilles, IL 61541-9757  
Tel 815-357-6761



March 5, 1998

**United States Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555**

Licensee Event Report #97-044-01 Docket #050-373 is being submitted to update the safety analysis.

If there are any questions or comments concerning this letter, please refer them to Perry Barnes, Regulatory Assurance Manager, at (815) 357-6761, extension 2383.

Respectfully,

Fred Dacimo  
Site Vice President  
LaSalle County Station

Enclosure

cc: A. B. Beach, NRC Region III Administrator  
M. P. Huber, NRC Senior Resident Inspector - LaSalle  
C. H. Mathews, IDNS Resident Inspector - LaSalle  
F. Niziolek, IDNS Senior Reactor Analyst  
INPO - Records Center

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**LICENSEE EVENT REPORT (LER)**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1): **LaSalle County Station, Unit 1** DOCKET NUMBER (2) **05000373** PAGE (3) **1 of 4**

TITLE (4) **Potentially Unanalyzed Condition for Automatic Depressurization System Accumulator Capacity Due To Lack Of Design Basis Information**

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 NAME	DOCKET NUMBER
12	05	97	97	044	01	03	05	98	LaSalle County Station, Unit 2	05000374
									FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9) **4** THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)  
POWER LEVEL (10) **000**

<input type="checkbox"/>	20.2201(b)	<input type="checkbox"/>	20.2203(a)(3)(i)	<input type="checkbox"/>	50.73(a)(2)(iii)	<input type="checkbox"/>	73.71(b)
<input type="checkbox"/>	20.2203(a)(1)	<input type="checkbox"/>	20.2003(a)(3)(ii)	<input type="checkbox"/>	50.73(a)(2)(iv)	<input type="checkbox"/>	73.71(c)
<input type="checkbox"/>	20.2203(a)(2)(i)	<input type="checkbox"/>	20.2003(a)(4)	<input type="checkbox"/>	50.73(a)(2)(v)	<input checked="" type="checkbox"/>	OTHER
<input type="checkbox"/>	20.2203(a)(2)(ii)	<input type="checkbox"/>	50.36(c)(1)	<input type="checkbox"/>	50.73(a)(2)(vii)	(Specify in Abstract below and in Text, NRC Form 366A)	
<input type="checkbox"/>	20.2203(a)(2)(iii)	<input type="checkbox"/>	50.36(c)(2)	<input type="checkbox"/>	50.73(a)(2)(viii)(A)		
<input type="checkbox"/>	20.2203(a)(2)(iv)	<input type="checkbox"/>	50.73(a)(2)(i)	<input type="checkbox"/>	50.73(a)(2)(viii)(B)		
<input type="checkbox"/>	20.2003(a)(2)(v)	<input type="checkbox"/>	50.73(a)(2)(ii)	<input type="checkbox"/>	50.73(a)(2)(x)		

**LICENSEE CONTACT FOR THIS LER (12)**

NAME **Brian Davenport, Mechanical Design Engineer** TELEPHONE NUMBER (Include Area Code) **(815) 357-6761 Extension 2259**

**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

**SUPPLEMENTAL REPORT EXPECTED (14)**

YES  NO  (If yes, complete EXPECTED SUBMISSION DATE) EXPECTED SUBMISSION DATE (15)

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

In May 1997 it was identified that station specific calculations for the capacity of the Automatic Depressurization System (ADS) accumulators could not be identified. Preliminary calculations performed prior to the original LER submittal showed the most limiting of the UFSAR licensing basis statements (two actuations of the ADS valves at 70 percent of a Drywell design pressure of 45 psig) may not be met. Review of the UFSAR and Safety Evaluation Report (SER) (NUREG-0519) determined that there is conflicting information as to the licensing basis requirements for the accumulator sizing. This event was conservatively determined to be potentially reportable in accordance with 10 CFR 50.73(a)(2)(ii)(A) as an unanalyzed condition that could have significantly compromised plant safety based on information available when the LER was originally submitted. Further analysis and calculations show the plant was not in an unanalyzed condition and the accumulator capacity will support the licensing basis requirement. Based on this analysis, the event is not reportable per 10 CFR 50.73(a)(2)(ii)(A).

**LICENSEE EVENT REPORT (LER)**  
TEXT CONTINUATION

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
LaSalle County Station, Unit 1	05000373	97	044	01	2 of 4

(If more space is required, use additional copies of NRC Form 366A)(17)

**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: 12/05/97	Event Time: 1200 Hours
Reactor Mode(s): 4/N	Power Level(s): 000/000	RCS [AB] Temperature: Unit 1 < 200 °F Unit 2 < 140 °F
		RCS [AB] Pressure: 14.7 psia (Unit 1/2)

Mode(s) Name: Cold  
Shutdown/Defueled

**B. DESCRIPTION OF EVENT**

Both LaSalle Units have been in an extended outage since September 1996 with Unit 1 in cold shutdown and Unit 2 defueled. There were no inoperable components or systems that contributed to the event.

The System Functional Performance Review conducted during the first part of 1997 identified an issue that station specific licensing basis calculations could not be identified for the Automatic Depressurization System (ADS) accumulators capacity. This issue was documented in the Corrective Action Program during May 1997 and engineering action items were assigned to resolve the inconsistency. Recent preliminary calculations using the methodology of NEDE-24956 "BWR ADS Pneumatic System Comparison to NUREG-0737 Requirement II.K.3.28," dated August 1981, show the more limiting statement in the UFSAR (two actuations of the ADS valves at 70 percent of a Drywell design pressure of 45 psig) may not be met. These preliminary calculations showed that at the specified minimum accumulator pressure of 151 psig, the accumulator pressure was approximately two psig below the minimum pressure required to actuate the ADS valves for the second time. An engineering review of the UFSAR and SER also determined that there is inconsistency in the licensing basis requirements for the accumulator sizing in these documents. Engineering investigations at the time of the original LER submittal were inconclusive. This event at the time of the original submittal was potentially reportable in accordance with 10 CFR 50.73(a)(2)(ii)(A) as a unanalyzed condition that could have significantly compromised plant safety. Subsequent analysis determined the event to not be reportable per 10 CFR 50.73(a)(2)(ii)(A).

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The licensing basis for the ADS valve accumulator sizing is based upon ensuring performance of all functions of the ADS valves:

- As specified in the LaSalle UFSAR Section 5.2.2.4.1 (page 5.2-14), "Overpressure Protection (Design Safety Function)," "They are sized to be capable of opening the valves and holding them open against a maximum Drywell pressure of 45 psig."
- As specified in the LaSalle UFSAR Section 7.3.1.2.2.1 (page 7.3-6), "ADS Instrumentation and Controls," "The accumulator can operate the safety/relief valve two times at 70 percent of Drywell design pressure following failure of the pneumatic supply to the accumulator."

Engineering efforts at the time of the original LER submittal to resolve the potential conflicting information include (1) researching the licensing basis for the accumulator sizing, (2) searching for existing calculations for the accumulator size (General Electric's original calculation has not been located), (3) performing a preliminary calculation based on NEDE-24956 methodology and (4) contracting General Electric to assist in resolving the discrepancy.

When the original LER was submitted, these efforts had not resolved the conflicting UFSAR information and the preliminary calculation indicated that the accumulators may not have met one of the statements. A conservative decision was made to place the accumulators in the "Degraded Equipment Log."

Further research into the licensing basis showed that the ADS accumulator capacity shall be based on achieving two actuations of an ADS valve with the Drywell at 70 percent of its design pressure (ie. 31.5 psig) (Ref. UFSAR Appendix L, Section 68). Also, a calculation has been performed that shows the capacity of the ADS accumulators is sufficient to provide the required two actuations of the ADS valves with the Drywell at 70 percent of design pressure (Ref. Calculation L-001115). This is the more limiting of the two bulleted cases stated above.

**C. CAUSE OF EVENT**

The licensing basis requirements for the ADS accumulator sizing had not been verified at the time of the original LER submittal. No root cause investigation is necessary since the plant was not in an unanalyzed condition. The original calculation for the ADS accumulator sizing could not be located and preliminary calculations using General Electric's generic methodology showed two actuations may not have been met; therefore, the conservative decision was made to report the issue. Calculations of record show two actuations can be achieved.

**D. SAFETY ANALYSIS**

There are no safety consequences since the calculation of record shows two actuations of the ADS valves can be achieved by the accumulators.

**LICENSEE EVENT REPORT (LER)**  
TEXT CONTINUATION

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**E. CORRECTIVE ACTIONS**

1. Determined the licensing basis for the ADS accumulator capacity and the nitrogen supply (NTS 373-180-97-SCAQ00044.01).
2. Performed a calculation to support the adequacy of the ADS accumulator capacity (NTS 373-180-97-SCAQ00044.02).
3. This submittal updates the status of the LER and presents the results of the additional analysis and the calculation (NTS 373-180-97-SCAQ00044.03).
4. The effort to update the UFSAR as required to remove/clarify the conflicting information is continuing (NTS 373-180-97-SCAQ00044.04).

**F. PREVIOUS OCCURRENCES**

LER NUMBER                      TITLE

None.

**G. COMPONENT FAILURE DATA**

Since no component failure occurred, this section is not applicable.