

LaSalle Generating Station  
2004 North 21st Road  
Marseilles, IL 61341-0754  
Tel: 815-357-6761

**ComEd**

November 27, 1996

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

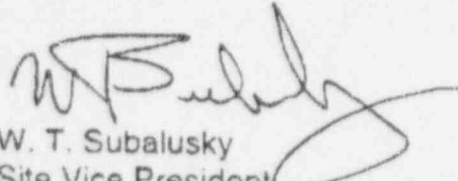
**Subject:** LaSalle County Station Units 1 and 2  
10 CFR Part 21 Notification 9605 Final Report  
NRC Docket Numbers 50-373 and 50-374

**Reference:** Letter from W. T. Subalusky to US Nuclear Regulatory  
Commission, LaSalle County Station Units 1 and 2, 10 CFR  
Part 21 Notification 9605, dated October 4, 1996.

Enclosed is ComEd's 10 CFR Part 21 Notification of the deficiency of WKM  
model 70-13 Pneumatic Actuators manufactured by the Anchor Darling  
Valve Company and in use at LaSalle County Station. This notification is  
submitted in accordance with the requirements of 10 CFR 21,  
Section 21.1(b). An interim notification, referenced above, had been made  
in accordance with 10 CFR Part 21 Section 21.21 (a)(2).

If there are any questions or comments concerning this letter, please refer  
them to me at (815) 357-6761, extension 3600.

Respectfully,

  
W. T. Subalusky  
Site Vice President  
LaSalle County Station

Enclosure

cc: A. B. Beach, NRC Region III Administrator  
M. P. Huber, NRC Senior Resident Inspector - LaSalle  
D. M. Skay, Project Manager - NRR - LaSalle  
F. Niziolek, Office of Nuclear Facility Safety - IDNS  
DCD - Licensing (Hardcopy:    Electronic:    )  
Central File

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## 10CFR Part 21 Notification

### 10 CFR Part 21 Report (File 96-05) WKM, MODEL 70-13 PNEUMATIC ACTUATORS - INCORRECT EFFECTIVE DIAPHRAGM AREA

Applicability This notification is submitted in accordance with the requirements of 10CFR Part 21, Section 21.1(b). An interim notification had been previously made on October 4th, 1996 in accordance with 10CFR Part 21 Section 21.21(a)(2).

Identification of Facility and Component LaSalle County Station, Units One and Two  
Commonwealth Edison  
Chicago, Illinois

WKM, Model 70-13 pneumatic actuators (sizes 35, 70, 140, 280)

Identification of Component Manufacturer Anchor Darling Valve Company

#### Nature of Defect

Anchor Darling Valve Company performed effective diaphragm area (EDA) testing on the various WKM, Model 70-13 pneumatic actuators (sizes 35, 70, 140, 280). The preliminary test results indicated that the original effective diaphragm area values used to calculate the bench set and supply air set points were incorrect.

#### Safety Significance

Potentially, the listed Primary Containment Isolation System (PCIS) valve assemblies would not provide adequate system isolation under designed accident conditions. The PCIS function may not have operated if required.

LaSalle Unit One is in Cold Shutdown mode and Unit Two is in Refuel mode. The PCIS function for the listed valves is not required for these modes.

#### Updated Safety Significance

See Licensee Event Report #96-011-00

#### Time of Discovery

September 28, 1996

#### Corrective Actions

From the October 4, 1996, notification:

1.) All affected valves are being reviewed/evaluated, design changes are being initiated as required.

It should be noted that the WKM Series 70-13 actuator is currently manufactured by the Anchor Darling Valve Company and similar valves may have been previously manufactured under the "Muesco" or "B, S & B" designations.

2) LaSalle is awaiting the publication of Anchor Darling's final testing report. A final notification will be made at that time.

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Updated Corrective Actions:

1) Design changes for all affected Primary Containment Isolation System (PCIS) and Reactor Core Isolation System (RCIC) valves have been initiated to make the required setting adjustments to ensure adequate design margins. Both units will remain in a condition that doesn't require valve design operation until the problem is corrected.

2) Licensee Event Report #96-011-00

Title: "Pneumatic valves with less-than-designed effective diaphragm area results in inadequate valve closing forces which may affect containment isolation."

Submittal Date: October 28, 1996.

Docket #050-373

3) In the interim report it was stated that LaSalle was awaiting the publication of Anchor Darling's Final Testing Report and would be making a final notification at that time. At that time, Anchor Darling's projected date for completion of the report was the mid-October time frame. As the result of recent conversations between Anchor Darling and ComEd, it is now LaSalle's understanding that the projected completion date of the final report has been pushed back to an end of November time frame. In addition, it is Anchor Darling's stated intention not to release the final report to LaSalle County Station.

Conclusion

LaSalle County Station's Licensee Event Report #96-011-00, will be followed by a supplemental report to be issued by December 2, 1996. The supplemental report will provide an updated assessment of the safety consequences of the event and will be based upon an analysis of as-found testing data of the affected valves.

All questions related to the results of Effective Diaphragm Area (EDA) testing should be addressed to the Anchor Darling Corporation.

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Number and Location of All Defective Components

Original Name Plate Data					
Tag/EPN	MFGR.	Type	Diaph.	Fail Mode	
	Supplier		(Sq.in.)		
1B33F019	<b>W-K-M Controls</b>	70-18-9DRT	70	Close	<b>RR Inboard Process Sample Stop*</b>
1B33F020	<b>W-K-M Controls</b>	70-18-9DRT	70	Close	<b>RR Outboard Process Sample Stop*</b>
1E51F004	W-K-M Controls	70-29-1DRT	70	Close	RCIC Baro Condenser Cond Pump Discharge to RBEDT Upstream Stop
1E51F005	W-K-M Controls	70-29-1DRT	70	Close	RCIC Baro Condenser Cond Pump Discharge to RBEDT downstream Stop
1E51F025	W-K-M Controls	70-18-9DRT	70	Close	RCIC Steam Supply Drain Pot Outlet Upstream stop
1E51F026	W-K-M Controls	70-18-9DRT	70	Close	RCIC Steam Supply Drain Pot Outlet Downstream stop
1E51F054	W-K-M Controls	70-18-9DRT	70	Close	RCIC Steam Supply Drain Pot Steam trap
1IN001A	<b>W-K-M Controls</b>	70-29-1DRTS	70	Close	<b>Drywell Suction Upstream Isolation*</b>
1IN001B	<b>W-K-M Controls</b>	70-29-1DRTS	70	Close	<b>Drywell Suction Downstream* Isolation</b>
1IN017	<b>W-K-M Controls</b>	70-29-1DRTS	35	Close	<b>Drywell Pneumatic to Drywell*</b>
1IN074	<b>W-K-M Controls</b>	70-29-1DRTS	35	Close	<b>DW Pneumatic Dryer Downstream* Purge Outlet</b>
1IN075	<b>W-K-M Controls</b>	70-29-1DRTS	35	Close	<b>DW Pneumatic Dryer Upstream* Purge Outlet</b>
1N62F019A	W-K-M Controls	70-29-1DRTS	140	Close	A Offgas Cond. Drain Level Cont Stop
1N62F019B	W-K-M Controls	70-29-1DRTS	140	Close	B Offgas Cond. Drain Level Cont Stop
1N62F019C	W-K-M Controls	70-29-1DRTS	140	Close	C B/Up Offgas Cond. Drain Level Cont Stop
1N62F019D	W-K-M Controls	70-29-1DRTS	140	Close	A B/Up Offgas Cond. Drain Level Cont Stop
1N62F025A	W-K-M Controls	70-29-1DRTS	280	Close	A Offgas Cooler Cond Inlet stop
1N62F025B	W-K-M Controls	70-29-1DRTS	280	Close	B Offgas Cooler Cond Inlet stop
1N62F042	W-K-M Controls	70-29-1DS	280	Open	Offgas Charcoal Absorber Train Inlet Stop
1N62F043	W-K-M Controls	70-29-1DRTS	280	Close	Offgas Charcoal Absorber Train Bypass Stop
1N62F047	W-K-M Controls	70-29-1DRTS	280	Close	Offgas Charcoal Absorber Train 2 Bypass Stop
1N62F048	W-K-M Controls	70-29-1DS	280	Open	Offgas Charcoal Absorber Train 2 Inlet Stop
1N62F049	W-K-M Controls	70-29-1DRTS	280	Close	Offgas Charcoal Absorber Train 1 Bypass Stop
1N62F057	W-K-M Controls	70-29-1DRTS	280	Close	Offgas Discharge to Stack

PCIS Valves appear in Bold Italics and are marked with an asterisk\*.

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1N62F394	Muesco	70-13-1D	280	Open	Offgas Charcoal Absorber Train 1 Outlet Stop
1RE024	<i>W-K-M Controls</i>	70-29-1DRTS	70	Close	DW Equipment Drain Inboard* Isolation
1RE025	<i>W-K-M Controls</i>	70-29-1DRTS	70	Close	DW Equipment Drain Outboard* Isolation
1RE026	<i>W-K-M Controls</i>	70-29-1DRTS	35	Close	DW Equipment Drain Sump Recirc* Valve
1RE029	<i>W-K-M Controls</i>	70-29-1DRTS	35	Close	DW Equipment Drain Sump* Discharge Valve
1RF012	<i>W-K-M Controls</i>	70-29-1DRTS	70	Close	DW Floor Drain Inboard Isolation*
1RF013	<i>W-K-M Controls</i>	70-29-1DRTS	70	Close	DW Floor Drain Outboard Isolation*
2B33F019	<i>W-K-M Controls</i>	70-18-9DRT	70	Close	RR Inboard Process Sample Stop*
2B33F020	<i>W-K-M Controls</i>	70-18-9DRT	70	Close	RR Outboard Process Sample Stop*
2E51F004	<i>W-K-M Controls</i>	70-29-1DRT	70	Close	RCIC Baro Condenser Cond Pump Discharge to RBEDT Upstream Stop
2E51F005	<i>W-K-M Controls</i>	70-29-1DRT	70	Close	RCIC Baro Condenser Cond Pump Discharge to RBEDT downstream Stop
2E51F025	<i>W-K-M Controls</i>	70-18-9DRT	70	Close	RCIC Steam Supply Drain Pot Outlet Upstream stop
2E51F026	<i>W-K-M Controls</i>	70-18-9DRT	70	Close	RCIC Steam Supply Drain Pot Outlet Downstream stop
2E51F054	<i>W-K-M Controls</i>	70-18-9DRT	70	Close	RCIC Steam Supply Drain Pot Steam trap
2IN001A	<i>W-K-M Controls</i>	70-29-1DRTS	70	Close	Drywell Suction Upstream Isolation*
2IN001B	<i>W-K-M Controls</i>	70-29-1DRTS	70	Close	Drywell Suction Downstream* Isolation
2IN017	<i>W-K-M Controls</i>	70-29-1DRTS	35	Close	Drywell Pneumatic to Drywell*
2IN074	<i>W-K-M Controls</i>	70-29-1DRTS	35	Close	DW Pneumatic Dryer Downstream* Purge Outlet
2IN075	<i>W-K-M Controls</i>	70-29-1DRTS	35	Close	DW Pneumatic Dryer Upstream* Purge Outlet
2N62F019A	<i>W-K-M Controls</i>	70-29-1DRTS	140	Close	A Offgas Cond. Drain Level Cont Stop
2N62F019B	<i>W-K-M Controls</i>	70-29-1DRTS	140	Close	B Offgas Cond. Drain Level Cont Stop
2N62F019C	<i>W-K-M Controls</i>	70-29-1DRTS	140	Close	C B/Up Offgas Cond. Drain Level Cont Stop
2N62F019D	<i>W-K-M Controls</i>	70-29-1DRTS	140	Close	A B/Up Offgas Cond. Drain Level Cont Stop
2N62F025A	<i>W-K-M Controls</i>	70-29-1DRTS	280	Close	A Offgas Cooler Cond Inlet stop
2N62F025B	<i>W-K-M Controls</i>	70-29-1DRTS	280	Close	B Offgas Cooler Cond Inlet stop
2N62F042	<i>W-K-M Controls</i>	70-29-1DS	280	Open	Offgas Charcoal Absorber Train Inlet Stop
2N62F043	<i>W-K-M Controls</i>	70-29-1DRTS	280	Close	Offgas Charcoal Absorber Train Bypass Stop

PCIS Valves appear in Bold Italics and are marked with an asterisk\*.

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2N62F047	W-K-M Controls	70-29-1DRTS	280	Close	Offgas Charcoal Absorber Train 2 Bypass Stop
2N62F048	W-K-M Controls	70-29-1DS	280	Open	Offgas Charcoal Absorber Train 2 Inlet Stop
2N62F049	W-K-M Controls	70-29-1DRTS	280	Close	Offgas Charcoal Absorber Train 1 Bypass Stop
2N62F057	W-K-M Controls	70-29-1DRTS	280	Close	Offgas Discharge to Stack
2N62F394	Muesco	70-13-1D	280	Open	Offgas Charcoal Absorber Train 1 Outlet Stop
2RE024	W-K-M Controls	70-29-1DRTS	70	Close	DW Equipment Drain Inboard* Isolation
2RE025	W-K-M Controls	70-29-1DRTS	70	Close	DW Equipment Drain Outboard* Isolation
2RE026	W-K-M Controls	70-29-1DRTS	35	Close	DW Equipment Drain Sump Recirc* Valve
2RE029	W-K-M Controls	70-29-1DRTS	35	Close	DW Equipment Drain Sump* Discharge Valve
2RF012	W-K-M Controls	70-29-1DRTS	70	Close	DW Floor Drain Inboard Isolation*
2RF013	W-K-M Controls	70-29-1DRTS	70	Close	DW Floor Drain Outboard Isolation*

Contacts

Mark Smith  
 AOV Component Engineer  
 LaSalle County Station  
 Commonwealth Edison  
 2601 North 21st Road  
 Marseilles, Illinois 61341  
 (815) 357-6761

PCIS Valves appear in Bold Italics and are marked with an asterisk\*.



PART 21

GENERAL INFORMATION or OTHER

EVENT NUMBER: 31093

LICENSEE: LASALLE COUNTY STATION

CITY:

REGION: 3

COUNTY:

STATE: IL

LICENSE#:

AGREEMENT: Y

DOCKET:

NOTIFICATION DATE: 10/04/96

NOTIFICATION TIME: 15:35 [ET]

EVENT DATE: 09/28/96

EVENT TIME: 12:00 [CDT]

LAST UPDATE DATE: 11/27/96

NOTIFICATIONS

NRC NOTIFIED BY: MR. SUBALUSKY

HQ OPS OFFICER: DOUG WEAVER

VERN HODGE

NRR

EMERGENCY CLASS: NOT APPLICABLE

10 CFR SECTION:

CCCC 21.21

UNSPECIFIED PARAGRAPH

EVENT TEXT

PART 21 NOTIFICATION ON WKM MODEL 70-13 PNEUMATIC ACTUATORS

ANCHOR DARLING VALVE COMPANY PERFORMED EFFECTIVE DIAPHRAGM AREA (EDA) TESTING ON THE VARIOUS WKM MODEL 70-13 PNEUMATIC ACTUATORS (SIZES 35, 70, 140, 280). THE PRELIMINARY TEST RESULTS INDICATED THAT THE ORIGINAL EFFECTIVE DIAPHRAGM AREA VALUES USED TO CALCULATE THE BENCH SET AND SUPPLY AIR SET POINTS WERE INCORRECT. THESE ACTUATORS ARE USED ON VARIOUS PRIMARY CONTAINMENT ISOLATION VALVES AND THESE VALVES MAY NOT PROVIDE ADEQUATE SYSTEM ISOLATION UNDER DESIGN ACCIDENT CONDITIONS.

LASALLE UNIT ONE IS IN COLD SHUTDOWN AND UNIT TWO IS IN THE FULL MODE.

\* \* \* UPDATE RECEIVED BY FAX AT 1508 ON 11/27/96, TAKEN BY WEAVER \* \* \*

DESIGN CHANGES FOR ALL AFFECTED PRIMARY CONTAINMENT ISOLATION SYSTEM (PCIS) AND REACTOR CORE ISOLATION SYSTEM (RCIC) VALVES HAVE BEEN INITIATED TO MAKE THE REQUIRED SETTING ADJUSTMENTS TO ENSURE ADEQUATE DESIGN MARGINS. BOTH UNITS WILL REMAIN IN A CONDITION THAT DOESN'T REQUIRE VALVE DESIGN OPERATION UNTIL THE PROBLEM IS CORRECTED.

THE LICENSEE SUBMITTED AN LER ON THIS TOPIC ON 10/28/96. AN UPDATED LER WILL BE SUBMITTED ON 12/2/96. THE HOO NOTIFIED VERN HODGE OF THIS UPDATE.

**FAX****Date** 11/27/96**Number of pages including cover sheet** 7**TO:** Nuclear Regulatory  
Commission  
OPS Center**FROM:** W. T. Subalusky  
LaSalle County Nuclear  
Power Station**FAX Phone** 301-816-5151**VERIFICATION** 301-816-5100**Phone** 815-357-6761**Fax Phone** 815-357-6761, ext. 2502**RE:** LaSalle County Station  
Units 1 and 2  
10CFR Part 21  
Notification 9605  
Final Report**REMARKS:** ☒ Urgent ☐ For your review ☐ Reply ASAP ☐ Please Comment

Attached are the above-entitled documents including cover letter; and 10CFR Part 21 Notification.