

June 19, 2003
NG-03-0406

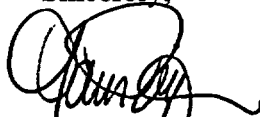
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station 0-P1-17
Washington, D.C. 20555-0001

Subject: Duane Arnold Energy Center
Docket No: 50-331
Op. License No: DPR-49
Licensee Event Report #2003-003-00
File: A-120

Dear Sirs:

Please find attached the subject Licensee Event Report (LER) submitted in accordance with 10CFR50.73. There are no new commitments contained within this report. Should you have any questions regarding this report, please contact this office.

Sincerely,



Mark Peifer,
Site Vice President

cc: Mr. James Dyer
Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
801 Warrenville Road
Lisle, IL 60532

NRC Resident Inspector – DAEC
IRMS

JE22

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1) Duane Arnold Energy Center	DOCKET NUMBER (2) 05000331	PAGE (3) 1 of 4
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TITLE (4)
Reactor Mode Change with an LCO in effect in Violation of Technical Specification 3.0.4

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
04	20	2003	2003	003	00	06	19	2003		
OPERATING MODE (9)		1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 3: (Check all that apply) (11)							
POWER LEVEL (10)		008	20.2201(b)			20.2203(a)(3)(ii)			50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)
			20.2201(d)			20.2203(a)(4)			50.73(a)(2)(iii)	50.73(a)(2)(x)
			20.2203(a)(1)			50.36(c)(1)(i)(A)			50.73(a)(2)(iv)(A)	73.71(a)(4)
			20.2203(a)(2)(i)			50.36(c)(1)(ii)(A)			50.73(a)(2)(v)(A)	73.71(a)(5)
			20.2203(a)(2)(ii)			50.36(c)(2)			50.73(a)(2)(v)(B)	OTHER
			20.2203(a)(2)(iii)			50.48(a)(3)(ii)			50.73(a)(2)(v)(C)	Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iv)			50.73(a)(2)(i)(A)			50.73(a)(2)(v)(D)	
			20.2203(a)(2)(v)		X	50.73(a)(2)(i)(B)			50.73(a)(2)(vii)	
			20.2203(a)(2)(vi)			50.73(a)(2)(i)(C)			50.73(a)(2)(viii)(A)	
			20.2203(a)(3)(i)			50.73(a)(2)(ii)(A)			50.73(a)(2)(viii)(B)	

LICENSEE CONTACT FOR THIS LER (12)

NAME Steve Catron, Regulatory Affairs Manager	TELEPHONE NUMBER (Include Area Code) 319-851-7234
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)		
YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO		MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On April 19, 2003 at 1938, with the plant in Startup (MODE 2), Limiting Condition for Operation (LCO) 3.5.1 Condition B (One low pressure ECCS subsystem inoperable for reasons other than an inoperable RHR pump) was entered, declaring Low Pressure Coolant Injection (LPCI) inoperable due to Suppression Pool Cooling being in-service to support post maintenance testing. Following completion of post maintenance testing, Suppression Pool Cooling was left running to support other testing scheduled later during that shift. Prior to completion of that testing, the Mode Switch was taken to Run (MODE 1) at 0518 on April 20, 2003. This is considered to be a violation of Technical Specification 3.0.4, which prohibits entry into a Mode of Applicability when an LCO is not met. The causes of the event were confusion about the definition of the Mode of Applicability in Technical Specification 3.0.4 and inadequate communication of the definition once it was determined. Immediate Corrective Actions were taken to make all licensed Operations personnel aware of the definition of Mode of Applicability in Technical Specification 3.0.4 and to stress the importance of communications among crew members and between crews. Follow up Correction Actions will make procedural improvements and provide training to licensed Operations personnel. There was no safety significance associated with this event.

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

I. Description of Event:

On April 19, 2003 at 1938, with the plant in Startup (MODE 2), Limiting Condition for Operation (LCO) 3.5.1 Condition B (One low pressure ECCS subsystem inoperable for reasons other than an inoperable RHR pump) was entered declaring Low Pressure Coolant Injection (LPCI) inoperable due to Suppression Pool Cooling being in-service to support post maintenance testing of a Main Steam Line Automatic Depressurization System Relief Valve. When the post maintenance testing was completed, Suppression Pool Cooling was left running to support Reactor Core Isolation Cooling (RCIC) and High Pressure Coolant Injection (HPCI) testing which was scheduled to occur later during that shift. Consequently, LCO 3.5.1 Condition B was not exited. Prior to completion of the RCIC testing, power ascension began and at 0518 on April 20, 2003, the Mode Switch was taken to Run (MODE 1). During turnover from the utility, licensed Operations (Operations) nightshift personnel to the Operations day shift personnel on April 20, 2003, it was realized that Technical Specification 3.0.4 had been violated. Technical Specification 3.0.4 prohibits entry into a Mode of Applicability when an LCO is not met. To have complied with Technical Specification 3.0.4, LCO 3.5.1 Condition B should have been exited by securing Suppression Pool Cooling prior to the Mode change. Residual Heat Removal (RHR) was returned to standby readiness and Technical Specification LCO 3.5.1 Condition B was exited at 1358 on April 20, 2003. All systems, structures and components performed as designed during this event.

During preparation of this LER, research revealed that Technical Specification 3.0.4 had been violated on a previous occasion. That event, which occurred on September 2, 2002 was nearly identical in that LCO 3.5.1 Condition B was in effect when the Mode Switch was taken from Startup (MODE 2) to Run (MODE 1). The September 2, 2002 event was not recognized as a violation of Technical Specification 3.0.4, was not entered into the Corrective Action Program and was not reported under 10CFR50.73(a)(2)(i)(B) at the time of the event.

II. Cause of Event:

One cause of the April 20, 2003 event was confusion about the definition of Mode of Applicability in Technical Specification 3.0.4. Inadequate communications within the Operations department was another cause of the April 20, 2003 event.

The confusion about the definition of the term "Mode of Applicability," as used in Technical Specification 3.0.4, resulted because it was believed by some Operations personnel that the prohibition against entering the Mode of Applicability only encompassed going from a Mode where Technical Specifications didn't apply to one where Technical Specifications did apply. It was believed that the Mode of Applicability encompassed all stated MODES or Other Specified Conditions as a collective group. In this case, the Mode of Applicability for LCO 3.5.1 is MODES 1, 2, and 3. Thus, in the Operation's interpretation, once LCO 3.5.1 was entered while in MODE 2, LCO 3.0.4 did not preclude entering MODE 1. It was this interpretation that led Operations personnel to take the Mode Switch from Startup (MODE 2) to Run (MODE 1) while in LCO 3.5.1 Condition B, in violation of LCO 3.0.4. The Technical Specification Bases for LCO 3.0.4 describes allowed Mode changes while in LCO 3.0.4.

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

II. Cause of Event (continued):

Discussions among Operations personnel in the days before the April 20, 2003 event revealed this confusion and Operations personnel contacted the Regulatory Affairs Department (utility, non-licensed personnel) for clarification. Once it was established that Technical Specification 3.0.4 did not allow changes between Modes where Technical Specifications were applicable, this information was not adequately communicated to all Operations personnel. Therefore, lack of communication was the second cause of the April 20, 2003 event.

III. Assessment of Safety Consequences:

There was no safety significance to the April 20, 2003 event. In addition to LCO 3.5.1, the plant was in day 2 of LCO 3.6.1.3 (Each PCIV, except reactor building-to-suppression chamber vacuum breakers, shall be OPERABLE) due to failure and resulting isolation of a torus spray header containment atmosphere dilution nitrogen supply outboard isolation valve. Mode changes are allowed while in LCO 3.6.1.3 and this LCO did not contribute to the safety significance of this event. This event did not challenge any systems, structures and components and all systems, structures and components performed as designed. There were no unplanned plant system actuations during this event. The plant was never in an unsafe condition, however, the method by which the plant conditions were changed was in violation of the Technical Specifications.

There was no safety significance to the September 2, 2002 event. Other than LCO 3.5.1 Condition B, no other LCOs were in effect at the time of the Mode change. This event did not challenge any systems, structures and components and all systems, structures and components performed as designed. There were no unplanned plant system actuations during this event. The plant was never in an unsafe condition, however, the method by which the plant conditions were changed was in violation of the Technical Specifications.

IV. Corrective Actions:

Immediate Corrective Actions:

Two Operations Department "Hot Items" were issued discussing the April 20, 2003 event. Operations personnel are required to read "Hot Items" prior to coming on-shift. One "Hot Item" made Operations personnel aware of the definition of Mode of Applicability in Technical Specification 3.0.4. A second "Hot Item" stressed the need for communication within crews, complete turnover between crews, and the need for discussion with peers prior to taking actions.

Follow-up Corrective Actions:

Two additional corrective actions have been initiated in the Corrective Action Program. The first action will put procedural improvements in place to prevent a future similar event. This action is scheduled to be completed by August 29, 2003. The second action will provide training on this event during the upcoming Licensed Operator Training for both Initial and Requalification training. This training will, at a minimum, discuss the September 2, 2002 and April 20, 2003 events, review the Hot Items from the April 20, 2003 event and stress the importance of reviewing the Technical Specification Bases.

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IV. Corrective Actions (continued):

Discovery of the September 2, 2002 event has been entered into the Corrective Action Program. The corrective actions described above appropriately address both the September 2, 2002 and the April 20, 2003 events.

V. Additional Information:

Previous Similar Occurrences:

As described in LER 2003-002, the DAEC experienced a Technical Specification violation involving the Reactor Mode Switch on February 11, 2003. As described in LER 2003-002, the Technical Specifications require the Reactor Mode Switch be locked in the Refuel position and the Technical Specification Bases define "Locked" as having removed the key from the Reactor Mode Switch. Contrary to this definition, Control Rod Drive exercises commenced on February 11, 2003 with the key still in the Reactor Mode Switch, in violation of Technical Specifications. The February event was caused by inadequate procedures. The February event is similar to the April event in that both involved unfamiliarity with definitions of Technical Specification terms and unfamiliarity with the Technical Specification Bases. As a result, the importance of reviewing the Technical Specification Bases will be stressed during the next Licensed Operator Requalification Training cycle.

During preparation of this LER, research revealed that Technical Specification 3.0.4 had been violated on a previous occasion. That event, which occurred on September 2, 2002 was nearly identical in that LCO 3.5.1 Condition B was in effect when the Mode Switch was taken from Startup (MODE 2) to Run (MODE 1). The September 2, 2002 event was not recognized as a violation of Technical Specification 3.0.4, was not entered into the Corrective Action Program and was not reported under 10CFR50.73(a)(2)(i)(B) at the time of the event.

EIIS System and Component Codes:

RHR: BO
Reactor Mode Switch: JC/JD

This event is being submitted pursuant to 10CFR50.73(a)(2)(i)(B).