

February 17, 1999

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Docket File GHill (2)  
PUBLIC GGrant, RIII  
PD3-1 r/f JZwolinski  
ACRS  
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CNorsworthy (RCN,  
copy of SE only)

Mr. Eliot Protsch  
President  
IES Utilities Inc.  
200 First Street, SE.  
P.O. Box 351  
Cedar Rapids, IA 52406-0351

SUBJECT: AMENDMENT NO. 225 TO FACILITY OPERATING LICENSE NO. DPR-49 -  
DUANE ARNOLD ENERGY CENTER (TAC NO. MA4587)

Dear Mr. Protsch:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 225 to Facility Operating License No. DPR-49 for the Duane Arnold Energy Center. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated January 22, 1999. A Notice of Enforcement Discretion (NOED) related to the subject TS was issued verbally on January 20, 1999. The NOED is documented in a letter dated January 22, 1999.

The amendment, processed as an exigent change to the TSs, revises TS Surveillance Requirement 3.8.1.7 to better match plant conditions during diesel generator (DG) testing by clarifying which voltage and frequency limits are applicable during the transient and steady-state portions of the DG start.

A copy of the Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

Original signed by:

Richard J. Laufer, Project Manager  
Project Directorate III-1  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

//  
DFO/

Docket No. 50-331

- Enclosures: 1. Amendment No. 225 to License No. DPR-49
- 2. Safety Evaluation

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DOCUMENT NAME: G:\PD3-3\DUANEARN\AMDA4587.WPD \*see previous concurrence

OFFICE	PD31:PM	E	PD31:LA	E	BC:TSB	OGC	D:PD31	E
NAME	RLaufer <i>RL</i>		CJamerson <i>CJ</i>		WBeckner *	CBarth *	CCarpenter <i>CC</i>	
DATE	2/11/99		2/11/99		1/27/99	2/11/99	2/12/99	

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REGISTRATION

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Original signed by:

Richard J. Laufer, Project Manager  
Project Directorate III-1  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

February 17, 1999

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President  
IES Utilities Inc.  
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Sincerely,

A handwritten signature in cursive script that reads "Richard J. Laufer".

Richard J. Laufer, Project Manager  
Project Directorate III-1  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-331

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License No. DPR-49  
2. Safety Evaluation

cc w/encls: See next page

Mr. Eliot Protsch  
IES Utilities Inc.

Duane Arnold Energy Center

cc:

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Al Gutterman, Esquire  
Morgan, Lewis, & Bockius  
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Board of Supervisors  
Cedar Rapids, IA 52406

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

IES UTILITIES INC.

CENTRAL IOWA POWER COOPERATIVE

CORN BELT POWER COOPERATIVE

DOCKET NO. 50-331

DUANE ARNOLD ENERGY CENTER

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 225  
License No. DPR-49

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by IES Utilities Inc., et al., dated January 22, 1999, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-49 is hereby amended to read as follows:

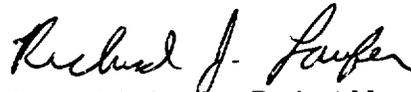
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(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 225, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. The license amendment is effective as of the date of issuance and shall be implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Richard J. Laufer, Project Manager  
Project Directorate III-1  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: February 17, 1999

ATTACHMENT TO LICENSE AMENDMENT NO. 225

FACILITY OPERATING LICENSE NO. DPR-49

DOCKET NO. 50-331

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by vertical lines.

Remove

3.8-7

Insert

3.8-7

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.6    Verify the fuel oil transfer system operates to transfer fuel oil from storage tank to the day tank.</p>	<p>31 days</p>
<p>SR 3.8.1.7    -----NOTE----- All DG starts may be preceded by an engine prelube period. -----</p> <p>Verify each DG starts from standby condition and achieves:</p> <p>a. in <math>\leq 10</math> seconds, voltage <math>\geq 3744V</math> and frequency <math>\geq 59.5Hz</math>; and</p> <p>b. steady state, voltage <math>\geq 3744V</math> and <math>\leq 4576V</math> and frequency <math>\geq 59.5Hz</math> and <math>\leq 60.5Hz</math>.</p>	<p>184 days</p>
<p>SR 3.8.1.8    -----NOTE----- This Surveillance shall not be performed in MODE 1 or 2. However, credit may be taken for unplanned events that satisfy this SR. -----</p> <p>Verify automatic slow transfer of AC power supply from the Startup Transformer to the Standby Transformer.</p>	<p>24 months</p>

(continued)



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 225 TO FACILITY OPERATING LICENSE NO. DPR-49

IES UTILITIES INC.

CENTRAL IOWA POWER COOPERATIVE

CORN BELT POWER COOPERATIVE

DUANE ARNOLD ENERGY CENTER

DOCKET NO. 50-331

1.0 INTRODUCTION

On January 20, 1999, IES Utilities Inc. (the licensee) reported to the staff in a teleconference that the Duane Arnold Energy Center (DAEC) was not in compliance with Technical Specification (TS) Surveillance Requirement (SR) 3.8.1.7, related to diesel generator (DG) testing, and that a reactor shutdown would be required in accordance with TS 3.8.1, Condition E. The licensee stated that the cause of the noncompliance was that SR 3.8.1.7 underwent significant changes as part of DAEC's conversion to the Improved TS (ITS) which were implemented on August 1, 1998. Although the licensee did not intend for the basic requirements of the SR to change as a result of the TS conversion, a significant change was introduced with the adoption of the Standard TS (STS) wording of NUREG 1433, "Standard Technical Specifications, General Electric Plants BWR/4," Revision 1. Specifically, upper limits on voltage and frequency for the initial starting sequence of the DG were added which were unnecessarily conservative for a DG in an unloaded condition. This condition was recognized, subsequent to the DAEC ITS conversion, and a change to the STS, Technical Specification Task Force (TSTF) change 163, Rev.2, has been approved by the NRC to correct this SR. Therefore, the licensee concluded that it is inappropriate to cause the plant to shut down due to a recognized deficiency in the TS.

The licensee requested that the Nuclear Regulatory Commission (NRC) exercise discretion not to enforce compliance with the actions required in SR 3.8.1.7 until an exigent TS amendment could be processed to revise SR 3.8.1.7. By letter dated January 21, 1999, the licensee submitted its formal request for a Notice of Enforcement Discretion (NOED) pursuant to the NRC's policy regarding exercise of discretion for an operating facility set out in Section VII.c. of the "General Statement of Policy and Procedures for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600. By letter dated January 22, 1999, the staff documented the issuance of the NOED for the DAEC. The NOED had been issued verbally on January 20, 1999, after the staff concluded that the licensee's technical basis for the request was satisfactory. By letter

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dated January 22, 1999, the licensee submitted a request for an exigent TS amendment to revise SR 3.8.1.7. The proposed change would revise SR 3.8.1.7 to better match plant conditions during DG testing by clarifying which voltage and frequency limits are applicable during the transient and steady-state portions of the DG start.

## 2.0 EVALUATION

Currently DAEC TS SR 3.8.1.7 requires the licensee to:

Verify each DG starts from standby condition and achieves, in  $\leq 10$  seconds, voltage  $\geq 3744V$  and  $\leq 4576V$  and frequency  $\geq 59.5Hz$  and  $\leq 60.5Hz$ ."

The licensee's proposal would change SR 3.8.1.7 to:

Verify each DG starts from standby condition and achieves:

- a. in  $\leq 10$  seconds, voltage  $\geq 3744V$  frequency  $\geq 59.5Hz$ ; and
- b. steady state, voltage  $\geq 3744V$  and  $\leq 4576V$  and frequency  $\geq 59.5Hz$  and  $\leq 60.5Hz$ .

As part of implementing the proposed amendment, the licensee would also modify the bases for SR 3.8.1.7 to add a statement regarding periodically monitoring and trending the time for the DG to reach steady-state operation in order to identify degradation of governor and voltage regulator performance.

The licensee's proposed change would revise SR 3.8.1.7 to better match plant conditions during testing. This surveillance test is performed with the DG unloaded, so that the DG initially overshoots its target nominal voltage and frequency during testing. In an actual event, the DG would be almost immediately loaded once minimum voltage and frequency requirements are met, thereby limiting the over-shoot. The revision changes the SR 3.8.1.7 criteria to clarify which voltage and frequency limits are applicable during the transient and steady-state portions of the DG start.

This proposed change would not affect the DG's ability to supply the minimum voltage and frequency required within 10 seconds or the steady-state voltage and frequency required by the Updated Final Safety Analysis Report (UFSAR) analysis. The DGs will continue to perform their intended safety function, in accordance with the DAEC accident analysis. The Loss of Offsite Power - Loss-of-Coolant Accident (LOOP-LOCA) test will still be performed to demonstrate DG operability in conditions which are more representative of accident conditions (loaded in the actual time sequence for loading).

As discussed above, subsequent to the DAEC ITS conversion, this change to SR 3.8.1.7 was reviewed by the staff as a generic change to the STS. The staff approved TSTF change 163, Rev.2, which incorporated the proposed change to SR 3.8.1.7.

The staff has reviewed the licensee's proposed license amendment and finds that the proposed change will better match plant conditions during testing and the proposed change is consistent

with the change to the STS approved by the staff in TSTF change 163, Rev.2. The staff, therefore, finds the licensee's proposed change acceptable.

### 3.0 EXIGENT CIRCUMSTANCES

The Commission's regulations, 10 CFR 50.91, contain provisions for issuance of amendments when the usual 30-day public notice period cannot be met. One type of special exception is an exigency. An exigency is a case where the staff and licensee need to act promptly and the staff has determined that the amendment involves no significant hazards considerations.

Under such circumstances, the Commission notifies the public in one of two ways: by issuing a Federal Register notice providing an opportunity for hearing and allowing at least two weeks for public comments, or by issuing a press release discussing the proposed changes, using the local media. In this case, the Commission used the first approach.

The licensee submitted the request for amendment on January 22, 1999. It was noticed in the Federal Register on February 1, 1999 (64 FR 4902), at which time the staff proposed a no significant hazards consideration determination. In its application, the licensee requested that the amendment be processed as an exigent request pursuant to 10 CFR 50.91(a)(6). The exigency was created by the existing TS surveillance, SR 3.8.1.7, containing inappropriate acceptance criteria which the DG is not designed to meet and which is overly conservative with respect to the DAEC UFSAR requirements for the DGs. This acceptance criteria was incorporated into the TS just prior to the approval of DAEC's conversion to Standard TS (NUREG 1433). The licensee did not intend that the basic requirements of this testing be different from those contained in the former custom TS (CTS 4.8.A.2.a.2). However, a significant change was introduced due to the adoption of the wording of NUREG-1433. Because this change was not recognized at that time, the plant procedure for the new SR did not correctly implement the TS. It was only recently, during the review of the Bases for this SR for another issue, that this error was recognized.

In order to continue plant operation in noncompliance with SR 3.8.1.7, enforcement discretion was verbally request by the licensee and granted by the NRC on January 20, 1999. The NOED, which was documented in a January 22, 1999, letter, granted enforcement discretion from the requirements of SR 3.8.1.7 until an exigent TS amendment to revise SR 3.8.1.7 is processed.

Accordingly, pursuant to 10 CFR 50.91(a)(6), the Commission has determined that the licensee used its best efforts to make a timely application and that exigent circumstances exist in that the licensee and the Commission must act quickly to prevent an unnecessary plant shutdown. Further, the Commission has determined that the exigency could not have been avoided and that the licensee did not create the exigency.

### 4.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92 state that the Commission may make a final determination that a license amendment involves no significant hazards considerations if operation of the facility in accordance with the amendment would not (1) involve a significant

increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

Operation of the facility in accordance with the proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated. The safety function of the DG is to provide AC power to required safety systems during any LOOP event. The limiting design-basis accident is the LOCA with concurrent LOOP (LOOP-LOCA). This proposed amendment would modify a DG SR and would not impact the offsite AC distribution system; therefore the probability of any LOOP event, including the LOOP-LOCA will not be significantly increased. This change will not affect the DG's ability to supply the minimum voltage and frequency required within 10 seconds or the steady-state voltage and frequency required by the UFSAR. The DGs will continue to perform their intended safety function, in accordance with the DAEC accident analysis.

Operation of the facility in accordance with the proposed amendment will not create the possibility of a new or different kind of accident from any accident previously evaluated. This change does not introduce any new modes or methods of plant operation. The proposed amendment would change the SR 3.8.1.7 criteria to clarify which voltage and frequency limits are applicable during the transient and steady-state portions of the DG start. No changes are being made in how the system actually operates or is physically tested.

Operation of the facility in accordance with the proposed amendment will not involve a significant reduction in a margin of safety. The DGs will continue to perform their intended safety function, in accordance with the DAEC accident analysis. The revised test criteria are a better match for the tested condition (unloaded). DG operability in conditions that are more representative of postulated accident conditions (loaded in the actual time sequence assumed in the accident analysis) are demonstrated by other SRs which are not affected by this proposed amendment.

Based on the above considerations, the staff concludes that the amendment meets the three criteria of 10 CFR 50.92. Therefore, the staff has made a final determination that the proposed amendment does not involve a significant hazards consideration.

## 5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Iowa State official was notified of the proposed issuance of the amendment. The State official had no comments.

## 6.0 ENVIRONMENTAL CONSIDERATIONS

This amendment changes a surveillance requirement. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluent that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has made a final finding that the amendment involves no significant hazards consideration. Accordingly, the

amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

#### 7.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: R. Laufer

Date: February 17, 1999