IES Utilities Inc.
200 First Street S.E.
P.O. Box 351
Cedar Rapids, IA 52406-0351
Telephone 319 398 8162
Fax 319 398 8192

John F. Franz, Jr.
Vice President, Nuclear

IES UTILITIES

October 17, 1995
NG-95-3026

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-37
Washington, D.C. 20555-0001

Subject: Duane Arnold Energy Center
Docket No: 50-331
Op. License No: DPR-49
Reply to a Notice of Violation Transmitted with Inspection Report 95007
File: A-105, A-102

Dear Sir:

This letter and attachment are provided in response to the Notice of Violation transmitted with NRC Inspection Report 95007.

This letter contains the following new commitments:

Information surrounding the replacement of the control building chiller motor will be presented to appropriate plant staff during continuing training in the first quarter of 1996. This action will be completed by April 1, 1996.

Engineered Maintenance Action A26631, initiated to support replacement of the installed thermal overloads associated with the control building chiller pump with the properly sized ones and ensure that the proper design standards are followed, will be completed by January 31, 1996.

Duane Arnold Energy Center's current process for identifying and issuing replacement parts will be reviewed for possible enhancements. This review will be completed by November 30, 1995.

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BLIND CARBON COPY LIST FOR NG-95-3026
October 17, 1995

P. Bessette

CIPCO

Corn Belt

GDS Associates, Inc.

K. Putnam

M. Mcdermott

J. Cantrell

A. Roderick

OC Engineer (C. Crew)

K. Peveler

SC Engineer (W. Rose)

K. Shea (NB&E)

G. VanMiddlesworth

K. Young

CTS Project

SUBJECT: Response to a Notice of Violation Transmitted with Inspection Report 95007.

REFERENCE:

FILE: A-105, A-102

If you have any questions regarding this matter, please contact my office.

Sincerely,

John F. Franz
Vice President, Nuclear

Attachment: Reply to a Notice of Violation Transmitted with Inspection Report 95007.

cc: R. Murrell
L. Liu
B. Fisher
G. Kelly (NRC-NRR)
H. Miller (Region III)
NRC Resident Office
DOCU

**IES Utilities Inc.**
**Reply to a Notice of Violation**
**Transmitted with Inspection Report 95007**

## VIOLATION

Technical specification 6.8.1 requires that procedures covering maintenance operations which could have an effect on the nuclear safety of the facility be implemented. Procedure 1408.01, "Engineered Maintenance Action (EMA)," Revision 4, requires the use of this procedure when a maintenance action affects or requires changes to controlled documents. The procedure requires that the design specification of an engineered component be evaluated and found to be acceptable. In addition, the procedure also requires completion of a 10 CFR 50.59 safety evaluation applicability checklist.

Contrary to the above, on May 3, 1995, a Corrective Maintenance Action Request (CMAR) was issued to replace a motor for the safety-related control building chiller with a motor that had a different model number and nameplate data; however, the licensee did not issue an EMA request to evaluate whether design standards were followed. In addition, the licensee did not perform calculations for sizing the thermal overloads, update control documents, or complete the 10 CFR 50.59 safety evaluation applicability checklist.

This is a Severity Level IV violation

## RESPONSE TO VIOLATION

### 1. REASON FOR THE VIOLATION

During a review of design information on July 14, 1995, an NRC inspector identified that the full load current of the motor for the safety-related control building chiller pump did not match the drawing. The installed motor had a lower full load current rating and therefore, the thermal overloads would trip after a longer period.

A review of the maintenance history of this motor indicates that during the performance of predictive maintenance on February 23, 1995, this pump motor was determined to be degraded. As a result, a CMAR was initiated to replace the motor with a new one. A search of motors on site indicated a motor of similar horsepower (20 hp) and manufacturer (Westinghouse) was available. At that time, the maintenance engineer planning the CMAR noted that the model number for the new motor was not identical to the old motor model number. However, based on the horsepower and manufacturer data,

the maintenance engineer assumed the motors were identical and did not investigate further. On May 3, 1995, the motors were changed under the original CMAR.

This change involved motors that were not identical and it affected design drawings. Therefore, the change should have been performed in accordance with Administrative Control Procedure (ACP) 1408.10, "Engineered Maintenance Action (EMA)," Revision 4, rather than as a CMAR only. The EMA procedure requires that the design specifications of an engineered component be evaluated and found to be acceptable and also requires that the change be reviewed in accordance with 10 CFR 50.59. Additionally, the EMA procedure specifies that actions must be taken to update the appropriate design documents.

The root cause of this event is the failure of personnel to pay sufficient attention to detail, in that the maintenance engineer did not perform the necessary research when replacing the old motor with the new motor. If the proper amount of research had been completed, the maintenance engineer would have determined that the motors were not identical and that an EMA was required to assure that the proper design standards and the requirements of 10 CFR 50.59 were followed.

## 2. CORRECTIVE ACTIONS TAKEN AND THE RESULTS ACHIEVED

After the discrepancies in the design documents were discovered, the new motor was evaluated. The evaluation determined that the installed overloads were within the range allowed by the National Electric Code, although they did not meet DAEC's thermal overload sizing methodology. Furthermore, the evaluation determined that there was no damage to the motor due to proper post maintenance testing upon installation and the fact that there was no evidence of thermal overload conditions. Therefore, no operability concerns exist with the current configuration.

Additionally, as part of initiating an EMA to replace the thermal overloads, a 10 CFR 50.59 Applicability Review was completed. This review determined that no unreviewed safety questions exist.

## 3. CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

EMA A26631 has been initiated to support replacement of the installed thermal overloads with properly sized ones. Use of an EMA will assure that the proper design standards are followed. The EMA will be completed by January 31, 1996.

Information surrounding the replacement of the control building chiller motor will be presented to appropriate plant staff during continuing training in the first quarter of 1996 to demonstrate how less than adequate attention to detail can lead to the use of an improper maintenance process. This action will be completed by April 1, 1996.

Additionally, DAEC's current process of identifying and issuing replacement parts will be reviewed for possible enhancements. This review will be completed by November 30, 1995.

## 4. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance will be achieved on January 31, 1996 when EMA A26631 is completed.