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John F. Franz, Jr.
Vice President, Nuclear

May 9, 1996
NG-96-0996

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 96002
File: A-105, A-102

Dear Gentlemen:

This letter and attachment are provided in response to the Notice of Violation transmitted with NRC Inspection Report 96002.

This letter contains the following new commitments:

The Engineered Maintenance Action (EMA) procedure is currently being revised to consolidate and refine the EMA process. As a result of previous and current assessment activities, the EMA procedure revision will include:

- ☐ Guidance to ensure that procedures, Control Room (rack) drawings and existing Preventive Maintenance Action Request tasks are updated or otherwise de-activated to prevent their use before associated equipment is declared operable.
- ☐ Directions to ensure engineering ownership of the EMA process.

The above revisions and subsequent training will be completed by June 1, 1996.

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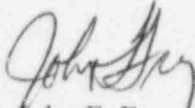
NG-96-0996

May 9, 1996

Page 2

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

Sincerely,

A handwritten signature in dark ink, appearing to read "John F. Franz". The signature is fluid and cursive, with the first name "John" being more prominent.

John F. Franz

Vice President, Nuclear

Attachment: Reply to a Notice of Violation Transmitted with Inspection Report 96002

cc: R. Murrell
L. Liu
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 96002

VIOLATION

Criterion XVI of 10 CFR Part 50, Appendix B, requires, in part, that measures be established to assure that conditions adverse to quality are promptly identified and corrected.

Contrary to the above, as of January 25, 1996, weak controls in the Engineered Maintenance Action (EMA) process, identified in September 1994, had not been corrected. The EMA process failed to ensure that, when replacement river water supply pump motors were installed in November 1995, affected procedures were updated in a timely manner. As a result, the wrong type oil was added during a maintenance activity on January 22, 1996. A similar concern was identified with the EMA process (and cited as a Violation of technical specifications) in September 1994 when annunciator response procedures were not updated following changes to area radiation monitor setpoints.

This is a Severity Level IV violation (Supplement 1).

RESPONSE TO VIOLATION

1. REASON FOR THE VIOLATION

In September 1994, several procedures associated with the upscale alarm setpoints for various plant Area Radiation Monitors were discovered to be inaccurate due to setpoint changes that were made as part of an EMA. IES Utilities Inc. received a Level IV violation as a result of this issue. As part of the corrective actions for that event, the EMA process was enhanced to ensure that any documents which have the potential to affect equipment operability are revised before the equipment is declared operable. Specifically, the maintenance planner's guide was revised to require procedures affecting equipment operability be identified in the maintenance testing section of the associated maintenance action request form and that the maintenance shop supervisor ensure that those procedures are updated before signing that the work is completed. The types of procedures identified in this guidance were Emergency Operating Procedures, Operating Instructions, Annunciator Response Procedures, Abnormal Operating Procedures and Surveillance Test Procedures. At that time, it was not recognized that maintenance procedures have the potential to affect operability.

In July 1995, EMA #A22896G was developed to change out all four River Water Supply (RWS) pump motors. Motors from U.S. Electric were selected to replace the existing Westinghouse motors. In accordance with the applicable procedure, the work was

planned as part of a generic EMA (an EMA that affects more than one component). The work was to be completed over an extended period of time (two motors changed out at a time). The EMA was circulated to those individuals responsible for identifying affected controlled documents. As part of the review, maintenance procedure "Motor-W120-001" was identified as being affected by the motor change out and it was determined that a new procedure would need to be developed for the U.S. Electric motors. However, since maintenance procedures had not previously been identified as potentially affecting operability, they were not required to be updated before the equipment was declared operable; therefore they were allowed to be updated during the closure portion of the EMA process (up to 120 days after completion of work).

In November 1995, the new motor for the 'A' RWS pump was installed. Operability testing was completed and the pump was declared operable on December 1, 1995.

On January 22, 1996, a Preventative Maintenance Action Request (PMAR) was planned to draw an oil sample from the 'A' RWS pump motor. The oil sample was taken and make-up oil was added in accordance with the Westinghouse maintenance procedure which directed the use of oil which was not correct for the U.S. Electric motor.

A visual inspection of the oil sample noted that the oil in the pump contained contaminants. As a result of the unsatisfactory visual inspection of the oil, a PMAR was tasked to flush the oil reservoir and replace the oil. During the planning of the PMAR, it was determined that the oil designated might not be the correct oil for the new motors. On January 23, 1996, after discussions with the oil analysis program owner, it was determined that the oil which had been used to replace the sample was not the correct oil. However, it was determined that the incorrect oil was compatible in the small amount that was added as make-up. Therefore, there was no operability concern with the pump. On January 24, 1996, the motor reservoir was flushed and refilled with the correct oil.

2. CORRECTIVE ACTIONS TAKEN AND THE RESULTS ACHIEVED

Upon discovery that the incorrect oil had been used as make-up, the RWS pump motor oil reservoir was flushed and the correct oil was added. Appropriate personnel were notified and it was determined that there was no operability concern. Additionally, the following corrective actions were taken:

- ☐ A Special Order, signed by the Plant Manager, was issued on March 13, 1996 to provide guidance to personnel involved with the planning, scheduling and implementation of EMAs to review the EMA's design control impact three weeks prior to the scheduled work date. The intent of this action is to ensure that the list of procedures and drawings identified as being affected by the EMA is complete and that they are ready to be updated.

- ☐ A Root Cause Analysis was performed by an Operations Shift Supervisor to help identify broken or missed barriers surrounding this issue.
- ☐ The Quality Assurance Department assessed the adequacy of previous, interim and proposed corrective actions taken to identified EMA process deficiencies.
- ☐ The adequacy of all actions planned and taken was discussed at management meetings, which included direct participation by the Vice President-Nuclear.

It was determined, as a result of the above actions, that while the EMA is an effective and efficient process, the control of documents affected by the process needs further enhancement. The following actions will be taken to enhance the EMA process:

- ☐ Engineering will "own" and therefore be ultimately responsible for ensuring proper implementation of the EMA process. This designation of ownership will provide a focal point for specific EMAs to ensure that the appropriate documents are updated before equipment is declared operable.
- ☐ Procedures, Control Room (rack) drawings and existing PMAR tasks affected by an EMA will be updated or otherwise de-activated to prevent their use before associated equipment is declared operable.

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

The EMA procedure is currently being revised to consolidate and refine the EMA process. As a result of previous and current assessment activities, the EMA procedure revision will include:

- ☐ Guidance to ensure that procedures, Control Room (rack) drawings and existing PMAR tasks are updated or otherwise de-activated to prevent their use before associated equipment is declared operable.
- ☐ Directions to ensure engineering ownership of the EMA process.

The above revisions and subsequent training will be completed by June 1, 1996.

Additionally, the Duane Arnold Energy Center staff fully understands the importance of implementing detailed, thorough and conservative corrective actions. To help assure that corrective actions are detailed in scope and are implemented correctly, an Action Request, due July 15, 1996, has been issued to the training center to evaluate the necessity for training of plant management on effective implementation of corrective actions and process changes.

4. **DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED**

Full compliance will be achieved by June 1, 1996, with the issuance of the revised EMA procedure.