

August 14, 1998

Mr. John F. Franz, Jr.
Vice President, Nuclear
Alliant Tower
200 First Street SE
P. O. Box 351
Cedar Rapids, IA 52406-0351

SUBJECT: DUANE ARNOLD CHEMISTRY AND RADIATION PROTECTION INSPECTION
REPORT 50-331/98011(DRS)

Dear Mr. Franz:

On August 7, 1998, the NRC completed an inspection at your Duane Arnold Energy Center. The enclosed report presents the results of this inspection.

The inspection was an examination of activities conducted under your license as they relate to radiation safety and to compliance with the Commission's rules and regulations and with the conditions of your license. The inspection consisted of a selective examination of procedures and representative records, observations, and interviews with personnel. Specifically, the inspection focussed on the implementation of the chemistry, radiological environmental monitoring, and meteorological monitoring programs. In addition, the inspection reviewed issues identified in previous NRC inspections. No violations of NRC requirements were identified.

Your staff demonstrated effective monitoring and control of plant water chemistry. In particular, we recognized your continued plant commitment to advanced technologies in mitigating corrosion, including noble metal chemical addition and hydrogen water chemistry, and to reducing corrosive agents in plant coolant systems. Quality control of chemistry instrumentation was effectively implemented and documented; however, we observed some performance biases and adverse trends in instrument responses, which were being evaluated and corrected by your staff.

The radiological environmental monitoring and meteorological program were also properly implemented. However, we observed that the 1996 and 1997 annual reports, which concluded that only background radiation was detected, did not fully evaluate some positive environmental sample results. Specifically, minor amounts of cobalt-60 were detected in the sewage discharge canal sediments, which were slightly above your lower limit of detection. Although the levels of radioactivity in these samples did not indicate a public health and safety concern, your staff did not fully assess the results in the context of plant operations or historical trends.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

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We will gladly discuss any questions you have concerning this inspection.

Sincerely,

Original Signed by Steven A. Reynolds (for)

John A. Grobe, Director
Division of Reactor Safety

Docket No.: 50-331
License No.: DPR-49

Enclosure: Inspection Report 50-331/98011(DRS)

cc w/encl: E. Protsch, Executive Vice President
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President, IES Utilities, Inc.
G. Van Middlesworth
Plant Manager
K. Peveler, Manager
Regulatory Performance
Chairperson, Iowa Utilities Board

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