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November 1, 1996  
NG-96-2279

Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Mail Station P1-37  
Washington, DC 20555-0001

Subject: Duane Arnold Energy Center  
Docket No: 50-331  
Op. License No: DPR-49  
Response to NRC Bulletin 96-03, "Potential Plugging of  
Emergency Core Cooling Suction Strainers by Debris in Boiling-  
Water Reactors," dated May 6, 1996

Reference: NRC Bulletin 96-03, "Potential Plugging of Emergency Core  
Cooling Suction Strainers by Debris in Boiling-Water Reactors,"  
dated May 6, 1996

File: A-101a, E-11

NRC Bulletin 96-03, "Potential Plugging of Emergency Core Cooling Suction Strainers by Debris in Boiling-Water Reactors," was issued on May 6, 1996. This Bulletin addresses the concern that debris, primarily insulation, could be dislodged and transported to the suppression pool following a loss of coolant accident (LOCA). Debris could be deposited on the emergency core cooling system (ECCS) pump suction strainers, potentially decreasing net positive suction head (NPSH) and reducing the water flow through the ECCS pumps. The Bulletin requests licensees to provide a report within 180 days of the date of the Bulletin describing actions to be taken, mitigative strategies to be used, and a schedule for implementation. The purpose of this letter is to provide this information.

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Bulletin 96-03 identifies potential resolution options that could be implemented to ensure the capability of the ECCS to perform its safety function following a LOCA. These options include the installation of a large capacity passive strainer design, installation of a self-cleaning strainer, installation of a backflush system, or other appropriate alternative. The Bulletin requests licensees to complete the implementation of appropriate procedures and plant modifications by the end of the first refueling outage starting after January 1, 1997. For the Duane Arnold Energy Center (DAEC), the first refueling outage (RFO) following January 1, 1997 is currently scheduled to begin in March, 1998. IES will implement any modifications or compensatory actions necessary to comply with Bulletin 96-03 during that refueling outage.

The Boiling Water Reactors Owners' Group (BWROG) is developing the methodology and data necessary in order to develop a satisfactory resolution to this issue. The BWROG recommended strainer design methodology will be documented in the Utility Resolution Guidance (URG) document. The URG will provide utilities with guidance on the evaluation of the ECCS potential strainer clogging issue for their plant, a standard industry approach to resolution of the issue that is technically sound, and guidance that is consistent with the requested actions in this Bulletin for demonstrating compliance with 10 CFR 50.46. The URG will include guidance on a calculational methodology for performing plant specific evaluations.

As stated in Bulletin 96-03, the Staff considers the URG to be an important part of the implementation of the final resolution of this issue. The actions taken by IES to comply with this Bulletin will be based on the URG document. The URG is not expected to be provided to the NRC as a final version until November 1996. It is anticipated that the NRC will review the document and issue a Safety Evaluation Report (SER) approving the calculational methodology. Our final evaluation of the BWROG resolution and any required design modification(s) will be completed after issuance of the NRC SER of the URG, currently projected for early in 1997.

This letter makes the following new NRC commitments:

- In accordance with NRC Bulletin 96-03, implement appropriate procedures, plant modifications, or compensatory actions to minimize the potential for clogging of the ECCS suppression pool suction strainers by debris that may be generated during a LOCA. These actions shall be completed by the end of RFO 15 currently scheduled to start in March, 1998.
- Provide a report confirming completion and summarizing actions taken. This report shall be submitted within 30 days of the completion of actions.

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

This letter is true and accurate to the best of my knowledge and belief.

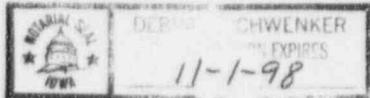
IES UTILITIES INC.

By *John F. Franz*  
John F. Franz  
Vice President, Nuclear

State of Iowa  
(County) of Linn

Signed and sworn to before me on this 1<sup>st</sup> day of November, 1996,

by *John Franz*



*Debra J. Schwenker*  
Notary Public in and for the State of Iowa

11-1-98  
Commission Expires

cc: C. Rushworth  
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