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DENTON, H.R. Office of Nuclear Reactor Regulation, Director

SUBJECT: Submits add) info on ECCS evaluations for Cycle 7 reload license submittal, in response to NRC request. GE reanalysis of new cladding rupture model indicates previously reported results unchanged.

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Iowa Electric Light and Power Company April 7, 1983 NG-83-1282

LARRY D. ROOT
ASSISTANT VICE PRESIDENT
NUCLEAR GENERATION

Mr. Harold Denton, Director Office of Nuclear Reactor Regulation U.S. Nuclear Regulatory Commission Washington, DC 20555

Subject: Duane Arnold Energy Center

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

Response to Request for Additional Information on the

Cycle 7 Reload License Submittal for the DAEC

Dear Mr. Denton:

The following are the Iowa Electric responses to the questions from your staff dealing with the Emergency Core Cooling System (ECCS) evaluations submitted with our current Reload License submittal:

Ouestion

Does the General Electric position for credit to offset MAPLHGR penalties for underpredicting fission gas release at high fuel burn-ups, approved in Generic Letter 82-03, apply to Duane Arnold?

Response

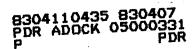
The criteria for applicability are: 1) That no previous credit be taken for ECCS evaluation model improvements and 2) That adequate margin to the Peak Cladding Temperature (PCT) limit of 2200°F exist to offset the imposed penalties. GE has reviewed our analysis and determined that the above criteria are satisfied. Therefore, Iowa Electric requests that the credits granted in GL 82-03 be applied to the DAEC.

Question

Was the new GE cladding rupture model, developed in response to NUREG-0630, used to analyze the fuel?

Response

GE has informed us that the new model was not used, as the analysis was performed prior to the May 1982 approval date of the new model. GE has also informed us that reanalysis with the new model would have no effect on the



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previously reported results. This is because the new model uses the old GE correlation for perforation temperatures above 1700°F (925°C) and the NUREG correlation below 1700°F. The calculated perforation temperatures for the DAEC are in excess of 1750°F and thus the old correlation applies.

Should you have further questions, please contact this office.

Very truly yours,

Jarry D. Root

Assistant Vice President

Nuclear Generation

LDR/RAB/dmh*

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NRC Resident Office

Commitment Control No. 83-0