DMB

Iowa Electric Light and Power Company

March 11, 1986
NG-86-0802

85-33

Mr. James G. Keppler
Regional Administrator
Region III
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Subject: Duane Arnold Energy Center
Docket No. 50-331
Op. License DPR-49
Information Requested in NRC Inspection Report 85-33
File: A-102, NRC-4

Dear Mr. Keppler:

This letter is submitted to provide Region III with a summary description of the Duane Arnold Energy Center piping evaluation program as requested in NRC Inspection Report 85-33, dated November 27th, 1985. Attachment 1 contains the information in accordance with your request.

Very truly yours,

R. W. McDaughy

Richard W. McGaughy
Manager, Nuclear Division

RWM/KSP/kp

Attachments: Response to Inspection Report 85-033

cc: K. Putnam
L. Liu
L. Root
M. Thadani
NRC Resident Inspector
Commitment Control #850342

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Inspection Report 85-033, Item 6, identified an unresolved item outside the scope of IEB 79-14 relating to safety-related large bore piping. The unresolved item centered on a need for additional evaluation of loads and the desirability of maintaining a comprehensive data base of piping design information. A general description of the program developed by Iowa Electric to resolve this item and periodic updates on the progress of the program were requested.

Iowa Electric has identified a seven step program to resolve the items identified in NRC Item 6. The following is a description of the steps contained in the program and the projected schedule for completion.

Step 1: Review the technical and documentational acceptability of dead weight, thermal, and seismic analyses.

This step has been completed and has identified a need for improved calculation of dead weight loads. The calculation of thermal loads will also be redone. Seismic loading analysis has been reviewed and judged acceptable.

Step 2: Determine seismic loads on pipe supports.

This information is available in existing documentation. However, it is not in a readily accessible form. The information will be retrieved from existing documentation and placed in a more accessible format usable in Steps 4 through 7 below. This task will be completed by April 30, 1986.

Step 3: Determine thermal and dead weight loads on pipe supports.

Additional analyses of the 67 piping systems referred to in the NRC Inspection Report will be performed to determine the dead weight and thermal components of pipe support loads. This task will be completed by September 1, 1986.

Step 4: Compare the support loads determined in Steps 2 and 3 above with design allowable loading.

This task will be a simple comparison of the dead weight, thermal, and seismic support load determined in Steps 2 and 3 above with the design allowable loads given on the support drawings. Approximately 400 nonspring supports must be reviewed in this task. This task, including the design of any necessary support modifications will be completed by December 31, 1986.

Step 5: Modify any supports that do not meet design criteria.

It is anticipated that Step 4 above will identify some supports which require modification to fully meet the design criteria. These modifications will be performed under Design Change Package 1323. Construction of these modifications will be completed by April 30, 1987.

Step 6: Update support drawings to reflect calculated support loads.

This task must follow Step 4 but can most efficiently be performed concurrently with Design Document Change effort associated with incorporating information collected in 1984 and 1985 during walkdowns associated with NRC Bulletin 79-14. The 79-14 associated Design Document Change effort has been suspended pending the availability of the reanalyzed support load data. The completion of drawing updates is scheduled for June 30, 1987.

Step 7: Generate a comprehensive data base of piping design information.

Bechtel is preparing a data base of piping design information that reflects calculations on piping and pipe supports used in our 79-14 reevaluation effort. This data base will be revised to include the calculations performed in Steps 3 and 4 above. With this system, an engineer will be able to determine the calculation that accurately reflects the as-built condition of a piping system or pipe support. This database will be available for use by December 31, 1986.