

Docket No. 50-346

License No. NPF-3

Serial No. 1-121

March 25, 1980



RICHARD P. CROUSE
Vice President
Nuclear
(419) 219-5221

Mr. James G. Keppler
Regional Director, Region III
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

IE Bulletin No. 79-14, dated July 2, 1979, requested that we develop and implement an inspection program to verify that the Davis-Besse Nuclear Power Station Unit 1 seismic analysis input of safety related piping systems conforms to the actual field conditions.

On October 19, 1979, we submitted to you the results of our detailed engineering reviews for normally excessible safety related piping. As a part of that submittal, we transmitted our schedule for follow-on analytical work required under Item No. 4B of the Bulletin. As work progressed, it became apparent that we would not be able to meet our original schedule. Attached is the current status of the follow-on analytical work required under Item No. 4B and our revised schedule for the completion of this effort.

Yours very truly,

A handwritten signature in cursive script, appearing to read 'R. Crouse'.

Attachment

RPC:CLM

jh b/2

cc:
U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Division of Reactor Operation Inspection
Washington, D. C. 20555

U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Operating Reactors
Washington, D. C. 20555

A037
5
1/1

Docket No. 50-346
License No. NPF-3
Serial No. 1-121
March 25, 1980

Seismic Analysis For As-Built
Safety Related Piping Systems

Response to NRC IE Bulletin No. 79-14

Davis-Besse Nuclear Power Station Unit 1

NRC IE Bulletin 79-14, dated July 2, 1979, Revision 1, dated July 18, 1979, Supplement 1, dated August 15, 1979, and Supplement 2, dated September 7, 1979, require all power reactor facility licensees to verify that the seismic analysis of safety-related piping systems applies to the actual as-built configuration of systems. The action items identified in the Bulletin apply to all safety-related piping, 2-1/2 inches in diameter and greater, and to Seismic Category I piping, regardless of size, which was analyzed by computer.

The response to Item 1 of the Bulletin was submitted on August 1, 1979 (Serial No. 1-81). A partial response to Item 2 of the Bulletin, describing the inspection procedures and discrepancies reviewed prior to September 30, 1979 for normally accessible piping systems, as defined by the Bulletin, was submitted on October 1, 1979 (Serial No. 1-93). The complete response to Item 2 of the Bulletin and a partial response to Item 4 was submitted on October 19, 1979 (Serial No. 1-95). The partial response to Item 4 included the evaluation of the identified nonconformances upon system operability and an estimated date for completion of the reanalysis of the piping and supports for the normally accessible systems.

The reanalysis of the piping and supports has involved more detailed stress reanalysis than originally anticipated. This additional reanalysis has resulted in not being able to meet our original schedule for completing this work. This report presents the current status of our reanalysis of the piping and supports for the normally accessible areas and our revised schedule for completing this work.

The completed detailed engineering review of all discrepancies has shown that the operability of safety-related systems is unaffected. In the reanalysis performed thus far, no deficiency has been discovered that has adversely affected the operability of any safety-related system. If, at any time during the remaining reanalysis, there results a conclusion that a deficiency exists in either the piping or its supporting system that affects system operability, applicable Technical Specification action will be taken.

In our previous partial response to Item 4 of the Bulletin, a tabulation was provided which identified the discrepancies by stress calculation number and pipe support or anchor number. In this table, a description of the stress calculation reanalysis required to verify the adequacy of the as-built configuration of the piping and supporting systems was provided.

Docket No. 50-346
License No. NPF-3
Serial No. 1-121
March 25, 1980

- 2 -

At that time, it was anticipated that a total of 89 stress calculations would require complete computer reanalysis. An additional 98 stress calculations were to require a simple hand calculation to resolve the discrepancies, and 33 calculations did not require any piping reanalysis. During the course of the reanalysis effort, a number of stress calculations were re-evaluated by the stress analyst based on the results of the calculations performed thus far and it was determined that a more extensive computer analysis would be required. Currently, it is planned to perform a complete computer reanalysis for 140 stress calculations and a simple hand calculation for an additional 47 stress calculations. At this time, we have completed 60% of the computer reanalysis.

The tabulation from the previous response in our October 19, 1979 letter to Item 4 of the Bulletin identified 552 pipe supports and anchors having discrepancies between the design drawing and the as-built configuration. Many of these will require a structural reanalysis to verify the adequacy of the support; many others will require only a minor drawing revision. In addition, as the stress calculations are reanalyzed structural analysis of additional supports may be required if the support loads increase. The final number of supports to be reanalyzed will not be known until all stress calculations have been rerun. At this time, approximately 300 pipe support calculations have been completed based upon the revised stress analysis and the identified walkdown discrepancies.

At this time, the earliest expected completion date for reanalysis of the piping and support systems for the normally accessible piping is June 2, 1980, with submittal of the results of the reanalysis scheduled for June 16, 1980. The current completion date for revising engineering documents to reflect as-built conditions in the station is September 1, 1980.