Omaha Public Power District

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August 3, 1979

Mr. K. V. Seyfrit, Director
U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region IV
611 Ryan Plaza Drive
Suite 1000
Arlington, Texas 76011

Reference: Docket No. 50-285

Dear Mr. Seyfrit:

The Omaha Public Power District received IE Bulletin 79-14, dated July 2, 1979, requesting that certain information be submitted within 30 days in regard to the seismic analysis for as-built safety-related piping systems at the Fort Calhoun Station. Accordingly, please find enclosed, a response to item 1 of that request.

Sincerely,

W C Jones

for T. E. Short
Assistant General Manager

TES/KJM/BJH/sjd

cc: Director, Office of Inspection & Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

[redacted]
Office of Nuclear Reactor Regulation
Washington, D.C. 20555

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Add: R. LaGrange
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Response to request in IE Bulletin No. 79-14, dated July 2, 1979

Request

1. *Identify inspection elements to be used in verifying that the seismic analysis input information conforms to the actual configuration of safety-related systems. For each safety-related system, submit a list of design documents, including title, identification number, revision, and date, which were sources of input information for the seismic analyses. Also submit a description of the seismic analysis input information which is contained in each document. Identify systems or portions of systems which are planned to be inspected during each sequential inspection identified in Items 2 and 3. Submit all of this information within 30 days of the date of this bulletin.*

Response

Inspection Elements

The elements to be inspected are the geometry of 2½ inch or larger diameter, safety-related piping plus associated valve and valve operator locations and types; pipe attachments; and seismic restraint configurations, dimensions, embedments, and locations.

Description of Seismic Analysis Input Information Contained in Design Documents and Verifications to be Made

The design documents to be checked are the piping and instrumentation diagrams (P&ID's), piping isometrics with seismic restraint locations identified, and seismic hanger/support drawings. The P&ID's indicate the piping isometric numbers for each segment of the various systems. The isometrics will be verified by measuring the as-built piping geometry to include locations of pipe attachments, valves, and seismic hangers/supports. The isometrics give hanger/support identification numbers for each specified restraint location. The hanger/support configuration, dimensions, clearances, embedments, and type will be compared with the individual drawings for each one. Embedments will be visually inspected for correct location, type, and general condition. The valves will be checked for specified manufacturer and type by comparing information stamped on the valve body and actuator with that contained in the valve files and on the valve lists. On valves with no identifying numbers visible, e.g. check valves totally covered by insulation, a cross check between the valve file information and valve lists will be made.

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Systems or Portions to be Checked During Each Phase

The systems or portion of systems that will be checked during the two phases of the inspection are listed below. Phase I is for piping which is normally accessible during reactor operation; Phase II is for all the rest. Some of the items to be checked are either in very high radiation fields or are inaccessible due to geometry considerations. Pipe and components in these areas will be viewed from a safe distance, if possible, to confirm proper configuration. In no case will buried piping be inspected.

1. Reactor Coolant System

   Phase I - None

   Phase II - All accessible piping.

2. Chemical and Volume Control System

   Phase I - Piping for one charging pump, one boric acid pump, and one concentrated boric acid storage tank. All the remaining nonredundant piping outside the reactor containment building, with the exception of that in very high radiation areas; e.g., piping for the ion exchangers, purification filters, and volume control tank.

   Phase II - All the remaining accessible piping.

3. Safety Injection and Containment Spray System

   Phase I - Piping in the auxiliary building for one high pressure safety injection pump, one low pressure safety injection pump, two containment spray pumps, one shutdown cooling heat exchanger, and one recirculation line.

   Phase II - All the remaining accessible piping. Containment spray rings and supply pipes will be inspected via field glasses or some other similar scheme.

4. Main Steam

   Phase I - Piping in auxiliary building up to the containment isolation valves.

   Phase II - All the remaining piping.

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Systems or Portions to be Checked During Each Phase (Continued)

5. Feedwater/Auxiliary Feedwater System

Phase I - Feedwater and steam generator blowdown lines in the auxiliary building between the containment penetration and containment isolation valves. Piping for the motor-driven auxiliary fedwater pump up to the containment penetration.

Phase II - All the remaining piping.

6. Component Cooling Water System

Phase I - Piping for two component cooling water pumps, one control room air conditioner, one shutdown cooling heat exchanger, the spent fuel pool heat exchanger, waste evaporator, three component cooling heat exchangers, cooling water supply and return headers to safety injection/containment spray pumps, sample heat exchanger, and component cooling water surge tank. Piping in auxiliary building for the safety injection tanks leakage coolers and seal coolers/lube oil coolers for the reactor coolant pumps.

Phase II - All the remaining piping.

7. Raw Water System

Phase I - Piping for two raw water pumps and three component cooling heat exchangers.

Phase II- All the remaining piping.

8. Spent Fuel Pool Cooling

Phase I - All accessible piping. Some restraints in the spent fuel pool are virtually inaccessible; others underwater may be visible from the surface. The storage pool demineralizer and filter are always very high radiation areas. Piping in that area will be viewed from a safe distance to confirm configuration.

9. Radioactive Waste Disposal System

Phase I - All 2½" or larger, nuclear class piping in the auxiliary building. Exceptions include piping around the spent resin storage tank and concentrate tanks because they are very high radiation areas.

Phase II - All remaining 2½" or larger, nuclear class piping.

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Systems or Portions to be Checked During Each Phase (Continued)

10. Fire Protection System

    Phase I - All piping within intake structure.

11. Containment Hydrogen Purge

    Phase I - All piping in auxiliary building.

    Phase II - All remaining piping.

12. Plant Air System

    Phase I - Piping in auxiliary building between the containment penetration and the containment isolation valve.

    Phase II - Piping inside containment.

List of Design Drawings

A list of design drawings that will be checked is attached. Drawings that have not been located are listed by title only; identification numbers, revision, and date are left blank. We will continue our attempt to locate these drawings. On the fire protection and containment hydrogen purge systems there are no piping isometrics with restraint locations marked available in the files.

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