bcc to DAC:ADM:
CENTRAL FILES
PDR:HQ
TIC
NSIC
LPDR
STATE

Omaha Public Power District

1623 HARNEY • OMAHA, NEBRASKA 68102 • TELEPHONE 536-4000 AREA CODE 402

November 9, 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 attached information is provided in response to a telephone call on November 6, 1979, with Mr. Madsen and Mr. Westerman of your staff. The information summarizes the Omaha Public Power District's efforts, to date, in regard to IE Bulletin 79-14.

Sincerely,

W. C. Jones
Division Manager
Production Operations

WCJ/KJM/BJH:jmm

Attach.

cc: Director of Nuclear Reactor Regulation
ATTN: Mr. Robert W. Reid, Chief
Operating Reactors Branch No. 4
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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

1774 210

8001210292

ATTACHMENT

1. Exact Status of All 79-14 Inspections to Date
and
2. Number of "Discrepancy Elements" Analyzed in Detail and Results and the Number in Need of Analysis

As of this writing, all inspections required by IE Bulletin 79-14 have been completed, with the following exceptions:

(1) Systems inside of containment.

(2) Fire protection piping within the intake structure and piping for the containment hydrogen purge system. Isometric drawings are presently unavailable for comparison with "as-built" conditions. The District will continue to search for these drawings. However, if drawings are not available by December 15, 1979, from any source, isometric drawings will be generated and a seismic analysis performed.

(3) Unlocated restraint drawings are as follows:

Dravo IC-No.	BP ISO No.		Restraint Nos.
IC-413	377	Component Cooling System	ACS-252-255-259-238-249-244
92	256		ACS-136-137-139-139A-140-140A-141
91	255		ACH-343, ACS-130-131-132-133A
89	253		ACS-126
85A	387		ACS-292-292(IP)-293-295(IP)
IC-83A	381		ACS-280-282-283-284 (All IP)
84A	248		ACS-286-286A-289-238
72	258	Safety Injection System	SIS-156
73	266		SIS-143(IP)-144(IP)-149(IP)
74	265		SIS-136(IP)
78	271		SIS-143(IP)-149(IP)-156(IP), SIH-186
79	267		SIS-168B-165B
164	269		SIS-149-156-143-137

The District will continue to search for these drawings. However, if drawings are not available by December 15, 1979, from any source, an analysis will be performed to determine the adequacy of the as-built condition.

(4) Piping in high radiation areas. Included in this category are:

(a) 3" CVCS piping from LCV-218-1 to the volume control tank (VCT); 4" CVCS piping from the VCT to LCV-218-2; 3" VCT makeup line; see FSAR Figure 9.2-2; general area radiation level ≈100 mr/hr, contact readings to 1.5 r/hr.

1774 211

(b) 2-1/2" CVCS piping to and from letdown heat exchanger; see FSAR Figure 9.2-2; general area radiation level ≈50 mr/hr, contact readings to 1 r/hr.

(c) 3" CVCS piping to and from ion exchangers and purification filters; see FSAR Figure 9.2-2; contact readings > 1 r/hr.

(d) 6" waste disposal piping to and from waste holdup tanks; see FSAR Figure 11.1-4; this piping is located inside of waste holdup tank vaults with consequent high radiation levels and very difficult access.

(e) 8" component cooling water piping to and from the letdown heat exchanger; see FSAR Figure 9.7-1; general area radiation level ≈50 mr/hr, contact readings to 1 r/hr.

(f) 8" component cooling water piping to and from the spent fuel pool (SFP) heat exchanger; see FSAR Figure 9.7-1; general area radiation level ≈600 mr/hr, contact readings to 50 r/hr.

(g) 8" SFP cooling piping downstream of AC-194; 4" and 3" SFP cooling piping downstream of AC-232; 8" SFP cooling piping upstream of AC-186, 187; see FSAR Figure 9.6-1; general area radiation level ≈600 mr/hr, contact readings to 50 r/hr.

(5) Piping submerged beneath the surface of the spent fuel pool and the safety injection and refueling water tank.

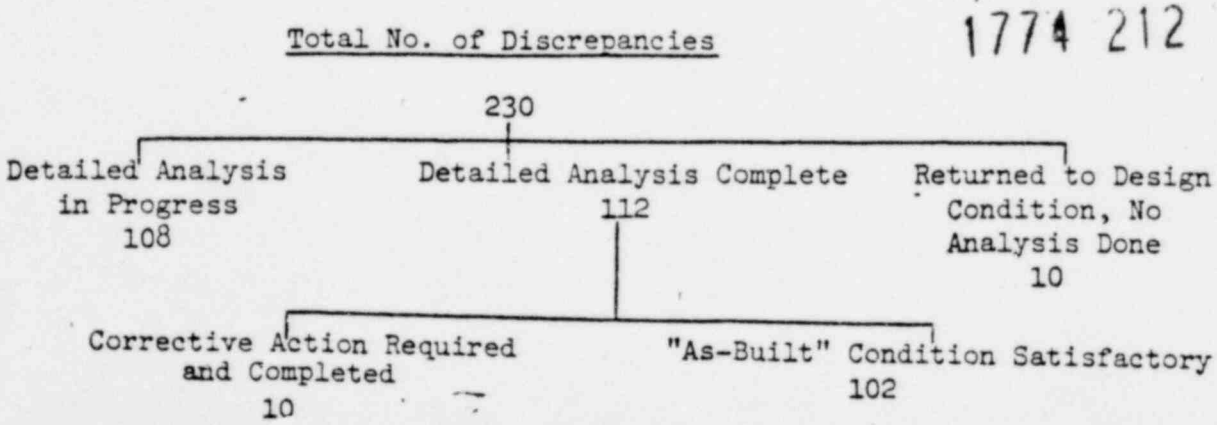
For the purpose of this discussion, the following definitions apply:

(1) Inspection Elements - parts and components of piping systems which would be defined and quantified as inputs to the seismic analysis. Included would be valves, large pipe fittings (e.g., reducers), and pipe supports. ("Inspection Elements" as previously reported only referred to piping supports/restraints.)

(2) Discrepancy - any significant difference between the "as-built" condition and the condition depicted in the design documents. Differences were considered to be significant if the possibility existed of invalidating the seismic analysis or further independent review was desired.

Out of all of the inspection elements examined, only 230 discrepancies were found which were resolved as follows:

1774 212



Initial engineering judgement, made by the Plant Review Committee, concluded that system operability was not in jeopardy. Where a judgement could not be made, field modifications were performed on an expedited basis, within applicable limiting conditions for operation (LCO's) of the Fort Calhoun Technical Specifications. All discrepancies were referred to the District's A/E for evaluation.

3. Schedule for Completion of Detailed Analysis for Phases I and II

All of Phase I discrepancies, except 17, will be evaluated by November 15, 1979. These exceptions involve special considerations and will be resolved as soon as possible. All discrepancies of Phase II will be evaluated by November 22, 1979.

4. What is the District's Schedule for the Review of the Gibbs & Hill Seismic Analysis to Determine if the Revision of the ISO's Used for the Field Inspection (FI ISO) was the Same Revision Used for the Seismic Analysis

To make the above determination, the following must be accomplished:

(1) Review and evaluate the data recently obtained from Gibbs & Hill.

(2) Verify that field inspection isometric drawings were the same as those used as input to the seismic analysis.

The District's schedule for completion of items (1) and (2) is November 16, 1979.

The determination of the extent of the review of the data will be made after completion of items (1) and (2) above.

5. Justification and Reasons for Missing 30 Day Evaluation Period

The primary reason for not meeting the 30 day requirement for evaluation of discrepancies is the unforeseen complexity of modeling the systems and the analysis required. In some cases the complexity was recognized only after analysis had begun. As a result it was necessary to obtain additional information before completion of the evaluation.

Once a problem was recognized, the solution and recommended corrective action had to be developed. The emphasis during this phase of evaluation was to thoroughly evaluate discrepancies, thereby minimizing modifications which might be required, rather than minimizing the time to obtain a recommended solution. This led to iterations in the computer runs and additional time expenditure.

1774 213

Another complication which arose occurred because the field inspection was done in two phases, Phase I and Phase II. In some instances discrepancies observed during the Phase II inspection impacted on the evaluation of Phase I discrepancies. The time difference between Phase I and Phase II therefore affected the completion date of Phase I. A further scheduling

impact was caused by the failure of the computer printer for a two day period, at a critical time.

In general, the lack of resources (i.e., manpower, computer availability, etc.) for all phases of this work contributed to the delay.

6. What is Being Done to Expedite Completion of Evaluation

Additional Gilbert/Commonwealth manpower was assigned to the team performing the detailed analysis of discrepancies reported by OPPD inspection crews. Manpower was increased when it became apparent that the amount of computer analysis needed exceeded the estimates for which the original team was sized.

Computer time was found to be a significant amount of the total evaluation time. The priority of all computer runs thereafter was assigned the highest priority number, representing a time savings of about 20%.

Key Gilbert/Commonwealth personnel who are responsible for performing the compilation and evaluation of computer results have been working an average of 20 hours overtime per man per week. Others involved with various aspects of the project have been working an average of 10 hours overtime per man per week.

In addition, all correspondence between OPPD and Gilbert/Commonwealth has been transmitted via Telecopy or Express Mail Service.

We believe everything practical has been done to expedite this effort; however, the District is re-emphazing to District and A/E personnel the need to closely monitor progress to further insure timely completion.

7. What Modifications are Being Done in the Field as the Result of the Inspections

As a result of IE Bulletin 79-14 inspections to date, initial engineering judgements performed by the Plant Review Committee on field inspection discrepancies concluded that the integrity of associated piping did not appear to be jeopardized and, therefore, the associated system was deemed to be capable of performing its design function. In the event that a restraint was found to be inadequate, corrective action was proposed and promptly completed to repair or modify the restraint within the Technical Specification LCO.

1774 214

Within this framework, a further conservative approach was utilized by the Plant Review Committee in handling discrepancies. In order to insure integrity and to expedite field completion, the plant staff invoked the associated Technical Specification, even though system piping integrity was not initially judged to be adversely affected. Of particular concern were two restraints on the component cooling water

system (ACS-326 and ACH-246), which were analyzed for restraint adequacy and found to be inadequate. When this evaluation was presented to the plant staff, immediate corrective action was initiated, even though evaluations of piping integrity were not completed. If a failure of these restraints in a seismic event would cause a failure of the associated piping, the plant's raw water system is designed to provide the required safety function in a backup role.

To insure proper consideration of reportability as a Licensee Event Report, all discrepancies which have been repaired or modified in the field will be reported, even though the initial engineering judgements in these cases indicated that system operability was not jeopardized.