

DETAILS

1. Persons Contacted

Licensee Employees

- *G. B. Rodgers, Jr. Site Manager
- *J. W. Yelverton, Q.A. Field Supervisor
- *S. F. Tanner, Q.A. Representative
- *J. M. Kelley, Q.A. Representative

Other Organizations

- *Bechtel Power Corporation; M. R. Lindsey - Bechtel Q.A.
Southwest Research Institute; S. A. Wenk - Consultant

NRC Resident Inspector

L. W. Garner

- *Attended Exit Interview

2. Exit Interview

The inspection scope and findings were summarized on January 23, 1981 with those persons indicated in Paragraph 1 above. The inspectors discussed the radiography follow-up inspection in detail. The inspectors indicated that certain minimum additional actions would be necessary to close the open items. The actions consisted of additional sample review of Safety/Relief valve radiographs, additional sample review of Unit 2 G.E. vendor radiographs and review of all radiographs of G.E. vendors unique to Unit 2.

3. Licensee Action on Previous Inspection Findings

This inspection was performed to follow-up on radiographic discrepancies reported in the following open items:

- a. (Open) Unresolved Item 50-416, 417/79-23-01, "Radiographic Film Discrepancies for Ractor Coolant Safety Relief Valves".
- b. (Open) Infraction 50-416/79-34-01, "Failure to Follow Specifications for Radiography"
- c. (Open) Licensee Identified Item 50-416/80-13-01 and 50-417/80-09-01, "Inadequate sensitivity of Radiograph Film". (This is a 50.55(e) that pertains to the licensee's expanded inspection of discrepancies reported by NRC in item (b) above).

Since code discrepancies noted in radiographic density and technique have been adequately documented in items a, b, & c above, the intent of this inspection was to review the extent of the licensee's radiographic review

and to evaluate the technical disposition for acceptance of the components represented by these radiographs. The licensee had requested that NRC perform this inspection at this time because the licensee's consultant was available to discuss open item (a) above and MP&L's technical disposition for acceptance of the Dikker's Reactor coolant system safety and relief valves.

The licensee had reinspected 100 percent of the radiographs for 3 Dikkers valves. Two of these valves were for Unit 1 and one was for Unit 2. The inspectors also read 100 percent of another Unit 1 Dikker's valve No. Q1B21-F051 S/N 160814, which consisted of a total of 80 radiographs. Selected radiographs of the body for this valve had been previously reported as representing some of the worse cases of density and radiographic technique discrepancies. In addition to the 3 valves that MP&L reviewed 100 percent, they had also read selected radiographs on other valves, performed some stress analysis and re-radiographed some accessible areas of other Dikker valves. The additional radiographs and the results of the stress analysis were not available for review at this time. However, the inspectors and MP&L concluded that of the total 320 radiographs for the 4 Dikker valves reinspected 100 percent all the film could be read and any defect that would be rejectable if densities and technique were within code requirements would also be detected and rejected under the present conditions. It should be noted that a great deal of this film had a 2-1T quality level when double viewing was employed. The inspectors requested that MP&L sample review additional Dikker's valves for Unit 1 and Unit 2, concentrating their review on the areas that have been the basis of most concern as a result of the 100 percent radiographic review conducted on 4 valves.

In addition, the inspectors notified the licensee on January 27, 1981 that MP&L's radiographic review should include selected radiographs from the eight spare Safety & Relief valves whose radiographs have not been available for review at the site. The licensee agreed to perform this additional radiographic review and stated that a final report would be forwarded to NRC for review addressing the extent of MP&L's review for the Dikker's valve problem. This report would note code violations as related to the radiography and provide MP&L's technical justification for acceptance of the components. Item (a) will remain open.

The inspectors also reviewed the licensee's actions to date on items (b) and (c) above. Both items concerned radiographic film discrepancies noted with General Electric vendors other than Dikkers. The licensee has reviewed all vendor film for Unit 1 which represent over 10,000 radiographs.

The inspectors reviewed the following sample of Unit 1 radiographs:

<u>MP&L Reader Reader Sheet No.</u>	<u>MP&L NO.</u>	<u>Component I.D.</u>	<u>RT Area & Discrepancy</u>
55	Q1B21-G001	Pipe Weld G010-B1,WE	6-7 & 9-0 Below 2.0 exceeds +30

029	Q1B21-G001	Pipe Weld G010-B1,WF	4-5 & 5-6 Below 2.0 above 4.0
162	Q1B33-G001	Pipe Weld G010-B1,WF	5-6, above 4.0 6-7, above 4.0
164	Q1B33-G001	Pipe Weld G010-B1,WL	4-5 4.0 0-1 4.0 +30 1-2 -15%
277	Q1B33-C001	Pump Case 741-S-1276	-15% 5-6 -15%
313	Q1B33-C001	Pump discharge Nozzle 741-S-1277	0-1 -15%
320	Q1B33-C001	Pump Casting Case 741-S-1277	17-18 1.0
326	Q1B33-C001	Pump Casting Case 741-S-1277	27-28 1.0 -15 ~ 30
418	Q1B33-F023	Valve Casting E6020-3-3	22-23 1.0
423	Q1B33-F023	Valve Casting E6020-3-3	36-37 1.0 - 15 45-46 4.0 + 30
451	Q1B33-F067	Casting Valve Body E6020-2-2	42-43 1.0 43-44 -15
474	Q1B21-F022B	Valve 5-561	7-8 4.0 19-20
486	Q1B21-F022A	Valve End Preps 4-561	122-123 4.0 128-129 -15+30
466	Q1B21-F028	Valve Body 8-561	33-34 1.0 35-36 -15
525	Q1E12-C002	Pump Suction Barrel 741-5-1401	5-6 Penny/Shim in Weld
757	Q1E12-B0024	Heat Exchanger	7-8 2.0 Coverage

The licensee's position on Unit 1 radiographs was that the film could be interpreted with the exception of isolated cases, for example when complete coverage was not obtained and radiographs of weld end preps. In both of these situations, supplemental inspection was performed either by Ultrasonics or in the case of weld end preps, radiography after the weld joints have been completed with satisfactory results.

The inspector's review appeared to confirm the licensee's assumptions. The inspectors indicated that as a minimum, the licensee should review a representative sample of Unit 2 radiographs. In addition, the licensee was requested to perform a 100 percent radiographic review of any new G.E. vendor unique to Unit 2. The licensee concurred to perform this review and to forward NRC a final report on the extent of their review, the discrepancies noted and their technical justification for acceptance. Items (b) and (c) will remain open.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Licensee Identified Items (50.55(e) Follow-up

- a. (Closed) Item 416/80-23-04, 417/80-14-04, Indicator valves. The licensee determined that this item was not reportable on November 12, 1980. This determination was based on the fact that the affected valves were not located in a safety related, dedicated system for the construction phase and routine maintenance prior to and during the operation phase would have identified the problem. The failure of the valves was caused by lack of routine maintenance during construction. The inspector reviewed documentation of the above and considers licensee actions acceptable.
- b. (Closed) Item 416/80-12-04, 417/80-08-02. Valve stem protectors cause valve misoperations. This item was inadvertently assigned two numbers. Therefore, this number is closed and followup will be performed against Item 416/80-27-01, 417/80-17-01. No violations or deviations were identified.
- c. (Closed) Item 416/80-12-17, 417/80-08-09. Instrument Calibration. This item was inadvertently assigned two numbers. Therefore, this number is closed and followup will be performed against Item 416/80-23-03 and 417/80-14-03.

6. New Licensee Identified Item (50.55(e)).

Item 416/81-02-01, 417/81-01-01. Undersize Socket Welds. Socket welds do not meet minimum code size requirements. (MP&L No. 80-43, identified 8/15/80). This report assigns the above number for record purposes. No inspection of this item was performed.