

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-483/82-12(DETP)

Docket No. 50-483

License No. CPPR-139

Licensee: Union Electric Company
P. O. Box 149
St. Louis, MO 63166

Facility Name: Callaway Plant, Unit 1

Inspection At: Callaway Site, Callaway County, MO

Inspection Conducted: September 13-15, 1982

Inspector: *K. D. Ward*
K. D. Ward

10/12/82

Approved By: *D. H. Danielson*
D. H. Danielson, Chief
Materials and Processes Section

10/12/82

Inspection Summary

Inspection on September 13-15, 1982 (Report No. 50-483/82-12(DETP))

Areas Inspected: Followup on several items brought to the attention of the NRC; previous inspection findings and 10 CFR 50.55(e) items. The inspection involved a total of 24 inspector-hours onsite by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

DETAILS

Persons Contacted

Union Electric Company

*R. Veatch, Supervisor, Engineer, QA Construction
*D. Zimmerman, Supervisor, Engineer, Construction
*H. Millwood, QA Consultant

Daniel International Corporation (DIC)

*R. Pitts, Project Piping Manager
*A. Arnold, Project Quality Manager
*J. Long, Project Welding Manager
*T. Massey, Project Piping Engineer
*M. Smith, Audit Resp. Coordinator
E. Stover, Mechanical Manager
M. Rudolphi, Mechanical Services Supervisor
K. Gibbs, Piping Services Supervisor
W. Murphy, Lead Construction Completion Engineer
J. Hanvey, Lead Piping Engineer
G. McDonard, Project Engineer
D. Sadlar, Project Engineer
S. Hughes, Construction Completion Engineer
H. Kiswer, Quality Inspector

Westinghouse Corporation (W)

S. Martinez, Site Manager

The inspector also contacted and interviewed other licensee and contractor employees.

*Denotes those attending the exit interview.

Licensee Action on Previous Inspection Findings

(Closed) Noncompliance (483/80-19-01): 9/16" diameter holes on 1/8" thick angle iron battery racks were plug welded. In a telecon on October 3, 1980, the following formula was relayed to Region III. Region III accepted this position and requested that Bechtel's calculations to support the acceptance of this weld configuration be available at the job site.

The method employed by Bechtel to review the size of the Gould anchor weld is as follows:

- a. The plug weld per AWS is a fillet weld that circles in on itself to fill the anchor hole. The strength of a fillet weld inside a circular hole can be determined by the following formula:

$f = .707 w\tau\pi D$

where: $w = 3/16''$ (height of weld leg)
 $\tau = 21$ Ksi (Allowable stress per ASIC Table 1.5.3
for E-70xx electrodes.)

$D = 15/32''$ (length of the weld determined by AWS D1.1-1975
Section 2.3.2.2 using the effective diameter of
the hole)

b. The tension in the weld is taken from the vendor calculation.

The results of the calculation compares the strength of the weld versus the Vendor's calculated applied load. It was determined that the weld strength (4100#) was greater than the Vendor's calculated applied load (3883#). Thus, the weld is satisfactory.

(Closed) Unresolved Item (483/80-15-01): Undersize socket welds. This item was reported as a 50.55(e) January 29, 1980. (Reference 483/80-02-EE)

Licensee Action on 10 CFR 50.55(e) Items

(Closed) 50.55(e) Item (483/80-02-EE): Undersize socket welds on small piping. Date reported January 29, 1980. Final report February 29, 1980. The inspector reviewed the final report, documented QC additional training of QC inspection report of approximately 2000 welds that were reinspected. The inspector considers this item closed.

(Open) 50.55(e) Item (483/80-06-EE): Westinghouse centrifugal charging pumps operation following secondary side high energy line rupture. Date reported May 8, 1980. This item is still being worked and may be closed November 1982.

(Open) 50.55(e) Item (483/80-14-EE): Failure of two containment isolation valves, Westinghouse CVCS System. Date reported October 30, 1980. This item is still being worked and may be closed in the near future.

Functional or Program Area Inspected

The inspector reviewed various documents and had several discussions with site personnel on the following items which were brought to the attention of the NRC.

1. Deficiency Report No. 2SD-6063-P

a. Item Brought to the Attention of the NRC

Deficiency Report No. 2SD-6063-07. This report related to the traceability of a 30" pipe in the Essential Service Pump House. The heat code was lost and the pipe was remarked. The heat number on the pipe agreed with the one shown on the bill of material, but the number on a printout for that pipe was traceable to 36" pipe rather than 30" pipe. The disposition of the Deficiency Report should be reviewed to determine whether it was satisfactory.

b. NRC Findings

In the search for Deficiency Report No. 250-6063-07 it was discovered that Deficiency Report No. 2SD-6063-P had the same information as stated above in 1.a. This report was for the traceability of a 30" piece of pipe #PC 115 in the Essential Service Pump House. PC 115 30" diameter pipe, on field sketch #FS-M-D5762(Q), was stamped with heat #EHUG for 36" diameter pipe by QC. In a walk down by Engineering the pipe was identified as being mismarked in transferring of the heat number of the cutoff section. There was scaffolding in the area prohibiting the original heat #EHOG, PO #, Spool #, etc., to be seen. The Heat #EHUG on a control DIC printout for site use Unit 1 material was traceable to a 36" piece of pipe. It was verified through discussions with cognizant DIC personnel that the Heat Code Printout is a DIC requirement for information only and not considered or classified as a QA record. The pipe with heat #EHOG was originally ordered for Unit 2. In the near future this heat #EHOG will also be documented in the DIC printout.

No items of noncompliance or deviations were identified.

2. Nonconformance Report (NRC) No. 2SN-5790-P

a. Item Brought to the Attention of the NRC

Nonconformance Report No. 25N-5790P was voided or superseded by Deficiency Report No. 25D-6713P. This related to a carbon steel letdown heat exchange drainline which has been welded to a stainless steel head. The use of carbon steel was incorrect and had to be replaced. The Deficiency Report, however, characterized the problem as a line installed out of location. It made no mention of the fact that it was carbon steel. Also, by converting the documentation to a Deficiency Report, Westinghouse, the supplier, was eliminated from the review process. If the Nonconformance Report, which was identified as an NSSS NCR, had been utilized Westinghouse would have been required to evaluate the problem.

b. NRC Findings

In the search for Nonconformance Report No. 25N-5790-P, it was discovered that Nonconformance Report No. 2SN-5790-P had the same information as stated above in 2.a. This NCR No. 2SN-5790-P was superseded by Deficiency Report (DR) No. 2SD-6713-P which makes up one package. The DR was written because of an equipment drainline cut out and a reinstallation fix. This was related to a carbon steel letdown heat exchange drainline which had been welded to a stainless steel header. The right material was used but the equipment drainline was welded in at the wrong location. The spool was installed on the tube side (stainless steel)

instead of the shell side (carbon steel) because of craft error. In discussion with DIC personnel, it was disclosed that copies of all NCR's and DR's are all submitted to Westinghouse for further evaluation. It was also emphasized that Westinghouse was fully aware of the concern due to the NCR and DR notifications.

No items of noncompliance or deviations were identified.

3. Hydro Report No. BG-07

a. Item Brought to the Attention of the NRC

Hydro Report No. BG-07. Hydro Reports, which are prepared by Engineering, are detailed descriptions of a system and the test to be performed prior to a test. These reports are reviewed by QC personnel to assure the accuracy of the details of the equipment in the system. Upon review 38 mistakes were identified in the above report. When such mistakes are found, an engineer will correct the mistakes on the report or if they are numerous and the corrections make the report messy, a new report is prepared. In those cases, the original report is thrown away and there is no indication that the succeeding version is a revision. Regarding No. BG-07, he did not know whether a new version had been prepared or whether the original, showing the corrections, was available for review.

b. NRC Findings

The Hydro Reports which are prepared by Engineering are detailed descriptions of a system and the test to be performed prior to a test. These reports are reviewed by QC personnel to assure the accuracy of the details of the equipment in the system. In a review of Hydro Report No. BG-07, the inspector identified eight mistakes that had been lined out, initialed, and dated. The report consisted of four pages. Correction fluid (white-out) is not used to correct mistakes. In discussion with DIC personnel, it was disclosed that if numerous mistakes (clerical) are made prior to signing of the report a new report is generated correcting all clerical mistakes.

No items of noncompliance or deviations were identified.

4. Hydro Test Document Review

a. Item Brought to the Attention of the NRC

Hydro test document reviews. These reviews are supposed to be completed prior to the test but site procedures permit waiving the completion of the review until after the test. Waiving the requirement has become standard practice.

b. NRC Findings

Engineering and Quality Inspection try to review all Hydro test documents prior to the test but site procedures do permit waiving the completion of the review until after the test. The system test pressure must be reviewed by Engineering and Quality Inspection for compliance to ANSI and ASME Codes prior to the test in order to know the pressure to use. If a wrong valve, pipe, material, etc., is found after the Hydro test, the Hydro is performed again. These personnel stated approximately 50% of the Hydro tests were performed without a complete verification of all items prior to conducting the test. The inspector reviewed various Hydro test documents. There was no instance observed where a Hydro test was performed more than once. The inspector concluded that even though certain verifications were not conducted prior to the Hydro testing, the end results met Code and procedural requirements.

No items of noncompliance or deviations were identified.

5. BLB Release Package

a. Item Brought to the Attention of the NRC

BLB Release Package -- could not recall to which system BLB related, it was a section of a system. A large number of problems were identified during a review of this package. Part of the package is an Exception List. Some items which were Q (safety related) were not identified as such. Some Q signature blocks were incorrectly marked N/A. This package should be reviewed.

b. NRC Findings

The inspector reviewed the BLB Release Package and discussed various items with site personnel. The inspector verified that the items which were QC (safety related) were identified and that the Q signature blocks incorrectly marked N/A were initialed and dated on the Exception List. The Exception List is not a QC document and is a DIC document to reflect scheduling.

No items of noncompliance or deviations were identified.

6. Field Sketch (Piping 150) No. FSMD M03 EF01

a. Item Brought to the Attention of the NRC

Field Sketch (a piping ISO) No. FSMD M03 EF01-FW83. This field sketch identifies a location on a 30" carbon steel line where a weld, FW83, was made within 1½" of another weld. A note on this field sketch says 3/8" is the approximate dimension and the as-built drawing will show the actual dimension. Specifications now contain a requirement that a replacement piece in a pipe must be

at least as long as the diameter of the pipe. The above condition apparently occurred prior to this requirement being added to the specification. The requirement was not contained in the original specification, there may be a need to check other work completed prior to the addition of this requirement to determine whether there are similar conditions that require evaluation.

b. NRC Findings

This field sketch identifies a location on a 30" carbon steel line where a weld, FW83 was made approximately 1½" from another weld. This area of interest is not delineated or addressed as being in violation of the Code. The pipe was cut to permit rotation of the flange face thereby allowing fit-up to the adjacent flange. This was not an added piece and this weld was made March 8, 1978. In 1979 a Site Specification required that a replacement piece in a pipe must be at least as long as the diameter of the pipe. Being this is not a Code requirement and this item was not addressed in any site procedures prior to 1979, the inspector considers reviewing other work completed prior to the addition of this requirement to be unnecessary.

7. Requests for Clarifications (RCI)

a. Item Brought to the Attention of the NRC

Personnel have submitted several Requests For Clarification and received no responses. (Perhaps the licensee's general performance in this area should be evaluated.)

b. NRC Findings

Through discussions with cognizant DIC personnel, it was clarified for the inspector the intent and use of the RCI. The intent is limited to requesting and recording of interpretations. The use is for clarifications. This is not identified as being a QA record but is for information only. Presently the licensee has submitted nine RCI's of which all were answered. DIC (Piping) has initiated approximately 1700 RCI's of which two were found not to be answered, and DIC (Mechanical) has initiated approximately 550 of which 26 were found not to be answered. In all cases the RCI's were directed to other than the licensee for interpretation or clarification. Since the RCI is not a QA record and only a small number of them remain unanswered, the inspector concluded that the intent of this informal clarification system was being met.

No items of noncompliance or deviations were identified.

8. Daniel Procedure, 10 CFR Part 21 Defect Reporting, AP-II-09, Rev. 3

a. Item Brought to the Attention of the NRC

Site procedure AP1109, paragraph 3.5 states that a form be available for reporting items reportable under 10 CFR 50. The form is also for use in reporting problems identified in systems after they are turned over to the licensee. Did not recall the name of the form but thought it was something like an Investigation Report form. These forms are not available in QC office area or in the field QC offices.

b. NRC Findings

Paragraph 3.5 in Daniel Procedure AP-II-09 states that a form be available for reporting items under 10 CFR 50. There are 70 copies in various areas around the site, outside Reception Room with a form posted, QA/QC areas, gates 1 and 2, etc. In each procedure there is a form that can be copied if needed.

No items of noncompliance or deviations were identified.

Exit Interview

The inspector met with site representatives (denoted in Persons Contacted paragraph) at the conclusion of the inspection. The inspector summarized the scope and findings of the inspection noted in this report.