TVA EMPLOYEE CONCERNS
SPECIAL PROGRAM

REPORT NUMBER: I-85-135-SQN

REPORT TYPE: Welding Project

REVISION NUMBER: 1

TITLE: Welder Certification Update Without Meeting Requirements

REASON FOR REVISION:

Added Corrective Action Plan - Attachment 7

SUMMARY STATEMENT: Concerns Considered: XX-85-049-001 and XX-85-049-X03

PREPARATION

PREPARED BY:

Original Signed By R. M. Bateman — SIGNATURE — 11-06-86 — DATE

REVIEWS

PEER:

Original Signed By J. E. Rose — SIGNATURE — 11-06-86 — DATE

TAS: TECHNICAL REVIEW ONLY

D W Stewart — SIGNATURE — 1-23-87 — DATE

CONCURRENCES

		Original signed by CEG-H: J.F.Lewis	11-25-86
SIGNATURE	DATE	SRP: James B Russell SIGNATURE*	1-23-87 DATE

APPROVED BY:

M V Ruch	1-23-87	N/A	
ECSP MANAGER	DATE	MANAGER OF NUCLEAR POWER CONCURRENCE (FINAL REPORT ONLY)	DATE

*SRP Secretary's signature denotes SRP concurrences are in files.

2242T

EMPLOYEE CONCERN
SUMMARY SHEET

Report Number: I-85-135-SQN

Report Title: Welder Certification Update Without Meeting Requirements

I. CONCERN CONSIDERED: *XX-85-049-001
XX-85-049-X03

II. ISSUES INVOLVED

1. Were welder certification/continuity records correctly maintained?

2. Was there any evidence that records were back dated or falsified?

3. Are there any safety implications?

III. STATEMENT ON CONCERN/ISSUE VALIDITY

Validity: Y X* ,N_____, Substantiated: Y X* ,N_____

XX-85-049-001 substantiated in part

IV. EFFECT ON HARDWARE AND/OR PROGRAM

None

V. JUSTIFICATION

All areas evaluated indicated that problems with Nuclear Operations (NO) welder continuity has been identified by Quality Assurance (QA) Survey, and have been corrected (See SQN-CAR-85-09-014). Corrective action has been verified and CAR closed.

VI. RECOMMENDATION AND/OR CORRECTIVE ACTION NEEDED

Closure of CAR, SQN-CAR-85-09-014

VII. REINSPECTION NEEDED: Y_____, N X

3158T

VIII. ISSUE CLOSURE

Closure is based on this report

IX. ATTACHMENTS

A. Approval sheet

B. Approval sheet

1. NSRS Report I-85-135-SQN
2. WP Bechtel Audit of SQN Key Elements 4.0, 5.0 and 17.0
3. Text of Employee Concern (XX-85-049-001)
4. Text of Employee Concern (XX-85-049-X03)
5. Summary of SQN specific employee concerns reviewed by WP
6. Program summarization of Weld Project (WP) evaluation
7. Corrective Action Plan

WELDING PROJECT

SQN SPECIFIC EMPLOYEE CONCERNS

DATE 11/6/86

SUBJECT: SEQUOYAH SPECIFIC EMPLOYEE CONCERNS -
SUMMARY OF WP ENGINEERING EVALUATION

CONCERN CONSIDERED: XX-85-049-001

PREPARED BY R. Bateman, 11/6/86, DNC, WP

REVIEWED BY J.E. Rose 11/6/86, DNC, WP

REVIEWED BY P.P. Lynchey 11/20/86, DQA, WP

REVIEWED BY James F. Lewis 11/25/86 FOR LHM, CEG-H, Welding

APPROVED BY _____, Program Manager

WELDING PROJECT

SQN SPECIFIC EMPLOYEE CONCERNS

DATE 11/6/86

SUBJECT: SEQUOYAH SPECIFIC EMPLOYEE CONCERNS -
SUMMARY OF WP ENGINEERING EVALUATION

CONCERN CONSIDERED: XX-85-049-X03

PREPARED BY R. Bateman, 11/6/86, DNC, WP

REVIEWED BY J.E. Rose, 11/6/86, DNC, WP

REVIEWED BY R.P. Lynckey 11/20/86, DQA, WP

REVIEWED BY James F. Lewis 11/25/86 FOR HIM, CEG-H, Welding

APPROVED BY _____, Program Manager

WELDING PROJECT

SQN SPECIFIC EMPLOYEE CONCERNS

ATTACHMENT 1

NSRS REPORT I-85-135-SQN

TVA 64 (08-9-85)

UNITED STATES GOVERNMENT

Memorandum

TENNESSEE VALLEY AUTHORITY

TO : K. W. Whitt, Director of Nuclear Safety Review Staff, E3 A8 C-K

FROM : R. G. Domer, Manager of Project Engineering, W12 A5 C-K

DATE : March 31, 1986

SUBJECT: SEQUOYAH NUCLEAR PLANT--EMPLOYEE CONCERN XX-85-049-001 and XX-85-049-X03 REPORT I-85-135-SQN

In accordance with assigned responsibilties the Welding Project (WP) has reviewed the subject concerns, the subject report and the recommendations in the subject report. The WP has also made a detailed review of the recently completed independent (Bechtel) audit of the Sequoyah Welding program.

The following recommendations and basis for close out was discussed with M. A. Harrison on March 24, 1986.

The WP recommends that the subject reports first recommended action which is Evaluation of Previous Welder Continuity, has been accomplished by the Bechtel Audit. That audit addressed welders qualification, maintenance/ continuity update and renewal. It is recommended this I-85-135-SQN-01 be closed out based on the results of the Bechtel audit.

If NSRS concurs with the close out please respond to the Sequoyah Site Director with a copy to the WP Project Manager. If there are any questions or comments please phone J. W. Coan at 4420.

R. G. Domer

R. G. Domer

JWC:NF

cc: H. L. Abercrombie, ONP, Site Director SQN
L. E. Martin, IOB-WBN ONP
J. W. Coan, W9 C135 C-K
W. D. Hall, W12 C62 C-K
D. W. Wilson, OE, DSC-A Sequoyah

Reviewers	Initial/Date
J. W. Coan	JWC 3/25/86
J. F. Weinhold	3/25/86
W. D. Hall	WDH 3/26/86

TVA 64 (05-9-85) (OP-WP-5-85)

UNITED STATES GOVERNMENT

Memorandum TENNESSEE VALLEY AUTHORITY

TO: H. L. Abercrombie, Site Director, Sequoyah Nuclear Plant

FROM: K. W. Whitt, Director of Nuclear Safety Review Staff, E3A8 C-K

DATE: FEB 18 1986

SUBJECT: NUCLEAR SAFETY REVIEW STAFF INVESTIGATION REPORT TRANSMITTAL

Transmitted herein is NSRS Report No. I-85-135-SQN

Subject WELDER CERTIFICATIONS UPDATED WITHOUT MEETING REQUIREMENTS

Concern No. [redacted] and XX-85-049-X03

and associated prioritized recommendations for your action/disposition.

This report contains one Priority 1 [P1] recommendation which must be addressed before startup. It is requested that you respond to this report and the attached Priority 2 [P2] recommendation by April 17, 1986. The Priority 3 [P3] recommendation will be looked at for corrective action follow through by June 1, 1986. No response is required for this item. Should you have any questions, please contact W. D. Stevens at telephone 6231-K

Recommend Reportability Determination: Yes X No ____

Director, NSRS/Designee

WDS:JTH
Attachment
cc (Attachment):
W. C. Bibb, SQN
J. W. Coan, W9C135 C-K
W. T. Cottle, WBN
James P. Darling, BLN
R. P. Denise, LP6N40A-C
G. B. Kirk, SQN
F. E. Laurent, CEO-WBN
W. E. Mason, E11C49 C-K--Review to confirm NSRS determination of no falsifcation
D. R. Nichols, E10A14 C-K
QTC/ERT, Watts Bar Nuclear Plant
Eric Sliger, LP6N48A-C
J. H. Sullivan, SQN
Kent Therp, IOB-WBN

TENNESSEE VALLEY AUTHORITY

NUCLEAR SAFETY REVIEW STAFF

NSRS INVESTIGATION REPORT NO. I-85-135-SQN

EMPLOYEE CONCERN: XX-85-049-001
XX-85-049-X03

SUBJECT: WELDER CERTIFICATIONS UPDATED WITHOUT MEETING REQUIREMENTS

DATES OF INVESTIGATION: NOVEMBER 26 - DECEMBER 12, 1985

INVESTIGATOR: E. F. Harwell 2/13/86
E. F. HARWELL DATE

REVIEWED BY: L. E. Brock 2/14/86
L. E. BROCK DATE

APPROVED BY: W D Stevens 2/17/86
W. D. STEVENS DATE

I. BACKGROUND

A Nuclear Safety Review Staff (NSRS) investigation was conducted to determine the validity of two expressed employee concerns as received by Quality Technology Company (QTC)/Employee Response Team (ERT). The concerns of record as summarized on the QTC computer printout and identified as XX-85-049-001 and XX-85-049-X03, respectively, stated:

> Sequoyah: Welder certifications have been updated for welders who did not meet update requirements or backdated to give appearance of requirement compliance.
>
> Sequoyah: Welder Certification card falsified. Construction Dept Concern. CI has no more information.

The K-form for XX-85-049-001 had not been received from QTC/ERT when this investigation began on November 26, 1985, although the concern was received by them on July 12, 1985. NSRS requested that QTC/ERT provide the K-form so the investigation could proceed. On January 24, 1986, the K-form was received the concern and was exactly as described by the above statement of the employee concern which was obtained from the summary on QTC computer printout.

Since these two concerns deal with the same area, the investigation was done in such a manner that a single report covers both concerns.

II. SCOPE

A. The scope of the investigation is defined by the concerns of record which entailed determining three specific issues:

1. Were welder certification/continuity records correctly maintainted?

2. Was there any evidence that records were backdated or falsified?

3. Are there any safety implications?

B. In conducting this investigation NSRS reviewed the requirements of the ASME Code, the Nuclear Quality Assurance Manual (NQAM), Nuclear Power Welding Program Requirements, and audit and corrective action reports. Several cognizant individuals were interviewed concerning the welder certification, continuity requirements, and recording. NSRS also reviewed a random sample of approximately 25 welder certification and continuity records.

III. SUMMARY OF FINDINGS

A. Requirements and Commitments

1. TVA Topical Report, TVA-TR75-1A, Section 17.2, "Quality Assurance Program, Program Applicable to Operation"

2. NQAM, Part II, Section 6.1, "Welding"

3. ASME, Section IX, "Welding and Brazing Qualifications"

B. Findings

1. References 1 and 12 require personnel performing special processes (i.e., welding) to be qualified and their qualifications to be documented.

2. ASME Section IX (Ref. 4) provides requirements to the power industry for qualifying welders and guidance on how to continue to maintain their qualification (continuity).

3. Nuclear Power has defined in reference 3 how to meet the requirements of ASME Section IX. Reference 2 provides the requirements that the Division of Construction must follow.

4. Sequoyah Nuclear Plant (SQN) utilizes references 7 and 8 to implement the requirements of the welding program.

5. In the past, Nuclear Power has accepted construction welder performance qualification without retesting. However, because of the welder certification questions recently raised at Watts Bar (Ref. 10), the SQN Site Director issued a memorandum (Ref. 9) to site management directing them to discontinue this practice.

6. In August 1985, an investigation of the welder certification and continuity program was started at SQN with the Plant QA Staff, Mechanical Maintenance, Mechanical Modification, and Hartford Inspector being involved (Refs. 6, 10, and 11).

7. As a result of this investigation, a corrective action report (Ref. 13) was issued identifying problems found.

8. A copy of a memorandum from Individual F, Mechanical Modifications Supervisor, to Active Welder's Files, dated October 23, 1985, was placed in each welder's files indicating that all active welder's files were reviewed by QA surveillance personnel and weld-test representatives and discrepancies corrected. There were 10 welders whose certification papers were missing or there were gaps in their construction continuity records. Their weld cards were pulled, and these welders were not allowed to weld until qualification requirements were met. Two welders' qualification test records were obtained and placed in their files. These two did not have a continuity problem. The remaining eight whose continuity records could not be obtained were retested in accordance with the renewal requirements of the ASME Section IX Code.

9. In discussion with a toolroom clerk (Individual H) who updates the continuity records based on weld filler material draws, he indicated that some draws may be inadvertently left off the welder certification printout. Once the error or omission is detected, the records are corrected for the timeframe for which they were missing. The welder certification printout is presently done once a month. However, Individual H said they may start doing the printouts more often; and, therefore, errors could be detected sooner and corrected before a month's time elapses.

10. A proposed corrective action response was received from the responsible supervisor and concurred with by QA on October 25, 1985. The response identified several root causes for the problems found. One main cause was clerical errors in the recording of and transfer of information. Another contributing factor was the different methods of updating continuity by the various organizations, such as the different construction sites and Nuclear Power. These methods have changed over the years and are much more stringent by today's standards. The CAR response conclusion was that no safety concern existed since all active welders were brought into compliance with requirements and all safety-related welding was performed in accordance with an approved QA inspection program. Plant procedure M&AI-5 has been revised to clarify the responsibilities and method utilized to maintain continuity.

11. A random review by NSRS of welder certification files revealed that corrections had been made and initialed by a responsible weld-test representative. However, no indications of backdating or falsification were found.

IV. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusion

1. The concern that the welder update (continuity) requirements were not being met was substantiated and had been identified recently in a QA audit finding. All active welder records have been properly updated by supporting documentation or the welder retested.

2. The concern that records may have been backdated in order to give an appearance that the welder was qualified could not be substantiated. There were some clerical-type errors where incorrect dates were entered on welders' records, but these were corrected when a review identified discrepancies between welder continuity record sheets and supportive documentation (i.e., welder performance qualification record). In addition, the toolroom clerk may have missed entering weld filler material draws on a welder's record and correctly updated the continuity records later, but this is not considered backdating. No evidence was found that indicated falsification of records had occurred.

3. There appears to be no safety concern since all active welder records were either correct or readily restored to requirements. Also, all safety-related welding is independently inspected per an approved QA program.

4. Corrective Action Report SQN-CAR-85-09-14 (Ref. 13) did not address the consequences of the previous (nonactive) welder continuity program.

B. Recommendations

1. I-85-135-SQN-01, Evaluation of Previous Welder Continuity Records

   A sample of previous nonactive welder records should be performed to gain adequate confidence that welder certifications were maintained and that no safety implication currently exists. [P1]

2. I-85-135-SQN-02, Corrective Action Backfit Evaluation

   TVA formal corrective action processes such as corrective action reports, nonconformance reports, etc., should be evaluated to include a backfit evaluation provision to determine if the identified deficiency requires such action to provide substantial, additional protection for the public health and safety or the common defense and security. [P2]

3. I-85-135-SQN-03, Verification of Corrective Action Taken on SQ-CAR-85-09-14

   To assure that all documentation problems have been resolved and all corrective actions have been completed or implemented, the plant QA staff will perform another indepth audit of the welder certification and continuity program in the next few months. This verification (audit) will allow satisfactory resolution of the CAR. This is an NSRS tracking item only. [P3]

0046W

DOCUMENTS REVIEWED IN INVESTIGATION NO. I-85-135-SQN
AND REFERENCES

1. NQAM, Part II, Section 6.1, dated October 12, 1984, "Welding"

2. General Construction Specification G-29, Process Specification 1.M.2.2 (Revision 2), dated February 10, 1983, "Welder and Welding Operator Performance Qualification"

3. Area Plan, DPM No. N73M2, dated August 28, 1984, "Process Specification for Welding, Heat Treatment, and Allied Field Operations"

4. ASME Section IX, 1983 Edition, Winter 83 Addenda, "Welding and Brazing Qualifications," Section QW-320, "Retest and Renewal of Qualification"

5. SQN Construction Procedure No. W-2, Revision 1, dated July 6, 1981, "Welder and Welding Operator Performance Qualification"

6. Compliance Visits, Audits, and Inspections - Inplant Survey Checklist No. 5a-85-S-007, dated September 22, 1985, Survey Title: Welder Qualifications and Continuity

7. SQN Standard Practice SQM 17, Revision 2, dated May 17, 1984, "General Welding Requirements for Nuclear Plants - DPM N73M2"

8. SQN Modification and Additions Instruction, M&AI-5, Revision 8, dated October 7, 1985, "Welding Material Control Procedure"

9. Memorandum from H. L. Abercrombie to Those listed dated August 29, 1985, "Welders' Certifications" (SO2 850828 979)

10. Memorandum from David H. Tullis to Boyd M. Patterson dated September 13, 1985, "Sequoyah Nuclear Plant - Welder Continuity Program"

11. John G. Brady's notes of September 3, 1985, concerning survey conducted by Doug Frye and himself to review the welder continuity program at SQN and determine if any problems existed

12. TVA Topical Report TR75-1A, Revision 8, Section 17.2.9, "Control of Special Processes"

13. Corrective Action Report SQN-CAR-85-09-14, dated September 12, 1985

14. Random (approximately 25) welder certification files

0046W

PSF

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50230

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # XX-85-049-001

Category: 88 Confidentiality: NA_ YES NA_NO(I&H)

Supervisor Notified: ___YES _X_ NO NUCLEAR SAFETY RELATED YES_

Concern: Sequoyah: Welder certifications have been updated for welders who did not meet upoate requirements or backdated to give the appearance of requirement compliance.

Construction department concern.

CI declined to provide further information.

No follow up required.

SQN/welder certification

CCHill for 12-17-85
MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS __1__ RCS

OTHERS (SPECIFY) OGC

Bruce L. Siefken 1-24-86
NSRS DATE

welding
welders

WELDING PROJECT

SQN SPECIFIC EMPLOYEE CONCERNS

ATTACHMENT 2

WP-BECHTEL AUDIT OF SQN

KEY ELEMENTS 4.0, 5.0, AND 17.0

KEY ELEMENT 4.0

OFFICE OF CONSTRUCTION
MAINTENANCE OF WELDER OR WELDING OPERATOR QUALIFICATIONS

Based on audit of welder maintenance records, TVA welders demonstrated welding within certification expiration dates as required by TVA programs and procedures.

KEY ELEMENT 5.0

OFFICE OF CONSTRUCTION
RENEWAL OF WELDER OR WELDING OPERATOR QUALIFICATIONS

Based on audit of welder qualification records and maintenance records, TVA welders were requalified in accordance with TVA programs and procedures. In many cases TVA welders were given the original qualification test for renewal which exceeded ASME IX and AWS D1.1 requirements for renewal.

KEY ELEMENT 6.0

OFFICE OF CONSTRUCTION
INITIAL WELDING INSPECTION PERSONNEL QUALIFICATION

Qualification/Certification records for nondestructive examination personnel (weld inspection) were reviewed for compliance with TVA NDE personnel qualification procedures covering a time span from January, 1971 through March, 1983.

TVA personnel qualification procedures used for the qualification/certification of NDE personnel complied with and referenced the applicable edition of SNT-TC-1A (American Society of Nondestructive-Testing).

Records evidencing qualifications and certifications contained sufficient detail to confirm compliance with applicable codes, standards and specifications in effect during construction activities.

KEY ELEMENT 17.0

OFFICE OF CONSTRUCTION EMPLOYEE CONCERNS

17.1 Concern No. XX-85-049-X03 and XX-85-101-006 regarding welder certification. This concern was not substantiated by the audit of a random sampling of 37 welders which involved 124 welder qualification records from 1970 to 1979.

17.2 Concern No. XX-85-69-001 and XX-85-069-X05 regarding welder certification and on-the-job training. This concern was not substantiated by the audit of a random sampling of 37 welders which involved 124 welder qualification records from 1970 to 1979.

17.3 Concern No. XX-85-108-001 and XX-85-108-002 regarding weld inspections. This concern could not be substantiated as evidenced by audit of a minimum of 14 inspection procedures.

17.4 Concern No. IN-85-476-004 and WI-85-041-002 regarding welding inspectors training program. This concern could not be substantiated as evidenced by audit of training programs.

17.5 Concern No. WI-85-053-004 and XX-85-68-006 regarding weld rod control satisfying code requirements. This concern was not substantiated by audit of a random sampling of 48 receiving documents and associated CMTR's which involved 83 heat and/or lot number, 8 types of weld metal covering the years 1972 to 1980. This represents approximately 572,000 pounds of weld metal. Although audit finding, AF-01-01, against Key Element No. 12 of this report is documented against the TVA program, it involves details required by TVA procedures over and above that required by ASME filler metal specifications and had no impact on weld quality.

The statement in the concern shows a lack of understanding of the code. For example, ASME III, NB-4122 requires traceability of the weld filler metal but gives two methods to chose from. Either trace to each component or ensure the specified material is used by a control procedure. TVA's program required that all the material meet the standards and, therefore, did not require traceability to a component.

(continued)

17.6 Concern No. XX-85-054-001 regarding weld inspection by craft. This concern was not substantiated by the audit of 13 inspectors pulled from the weld history records for the welds reviewed in the audit as well as by an additional random sampling of 13 inspectors. No holdpoints were found to have been signed off by anyone other than certified inspectors.

This concern may be referring to structural welds instead of piping. Structural welds and piping have different code requirements for fit up and final inspection. No holdpoints are required by the TVA procedures for structural welds.

17.7 Concern No. EX-85-039-001 regarding weld control (stubs and unused rod). This concern was not substantiated by the audit of applicable procedures. A daily surveillance program was maintained which included verification of welder identification, the feature being welded and the procedure being used. Variables from the procedure (such as amperage) were verified to assure that welders were using the procedure properly. Welding rods, ovens and controls were monitored to assure that the welder had requested the proper rod, was issued the proper rod, and was using the proper rod. Approximately 300 surveillances a month were performed during years of peak construction.

KEY ELEMENT NO. 4.0

NUCLEAR OPERATIONS
MAINTENANCE OF WELDER OR WELDING OPERATOR QUALIFICATIONS

Based on audit of welder maintenance records, TVA welders demonstrated welding within certification expiration dates as required by TVA programs and procedures.

KEY ELEMENT NO. 5.0

NUCLEAR OPERATIONS
RENEWAL OF WELDER OR WELDING OPERATOR QUALIFICATIONS

Based on audit of welder qualification records and maintenance records, TVA welders are requalified in accordance with TVA programs and procedures.

KEY ELEMENT 6.0

NUCLEAR OPERATIONS
INITIAL WELDING INSPECTION PERSONNEL QUALIFICATIONS

All inspector qualification records (NDE, to include visual examination) audited indicated compliance with TVA programs and procedures and the referenced codes and standards.

OBSERVATION

TVA Form 6780 (as referenced in procedure 0202.14) used to document NDE qualification and certification does not clearly identify the recertification status of the individual. Additionally, certification authority is referenced as being in compliance with TVA program requirements when individuals are actually certified in accordance with the specific requirements of Procedure 0202.14 (formerly N75C01), Qualification Certification Program for NDE Personnel.

Program clarity and definition could be improved by adding either the certification expiration date or recertification status as an entry on Form 6780. Specific reference to Procedure 0202.14 on certification forms (6780) would provide for direct reference and compliance with TVA NDE personnel qualification, certification requirements and practices for each NDE method employed.

KEY ELEMENT 17.0

OFFICE OF NUCLEAR OPERATIONS

17.1 Concern No. XX-85-049-X03 and XX-85-101-006 regarding welder certification. This concern was not substantiated by the audit of a random sampling of 25 welders which involved 107 welder qualification records from 1972 to 1985.

17.2 Concern No. XX-85-69-001 and XX-85-069-X05 regarding welder certification and on-the-job training. This concern was not substantiated by the audit of a random sampling of 25 welders which involved 107 welder qualification records from 1972 to 1985.

17.3 Concern No. XX-85-108-001 and XX-85-108-002 regarding weld inspections. This concern could not be substantiated as evidenced by audit of a minimum of 14 inspection procedures.

17.4 Concern No. IN-85-476-004 and WI-85-041-002 regarding welding inspectors training program. This concern could not be substatiated as evidenced by audit of training programs.

17.5 Concern No. WI-85-053-004 and XX-85-68-006 regarding weld rod control satisfying code requirements. This concern was not substantiated by audit of a random sampling of 25 receiving documents and associated CMTR's which involved 25 heat and/or lot number, 6 different types of weld metal covering the years 1976 to 1985. This represents approximately 19,000 pounds of weld filler metal.

The statement in the concern shows a lack of understanding of the code. For example, ASME III, NB-4122 requires traceability of the weld filler metal but gives two methods to chose from. Either trace to each component or ensure the specified material is used by a control procedure. TVA's program required that all the material meet the standards and, therefore, did not require traceability to a component.

17.6 Concern No. XX-85-054-001 regarding weld inspection by craft. This concern was not substantiated by the audit of 4 inspectors pulled from the weld history records for the welds reviewed in the audit as well as by an additional random sampling of 10 inspectors. No holdpoints were found to have been signed off by anyone other than certified inspectors.

KEY ELEMENT 17.0

OFFICE OF NUCLEAR OPERATIONS

(continued)

This concern may be referring to structural welds instead of piping. Structural welds and piping have different code requirements for fit up and final inspection. No holdpoints are required by the TVA procedures for structural welds.

17.7 Concern No. EX-85-039-001 regarding weld control (stubs and unused rod). This concern was not substantiated by the audit of applicable procedures. A surveillance program is maintained which included verification of welder identification, the feature being welded and the procedure being used. Variables from the procedure (such as amperage) are verified to assure that welders are using the procedure properly. Welding rods, ovens and controls are monitored to assure that the welder has requested the proper rod, was issued the proper rod, and is using the proper rod.

11/04/88
11:27:14

(EMPLOYEE CONCERNS)

CAT	ISSUE	PLANT	PRIORITY	ORG	QTC	EGG	INSP	SD	RD	GD	IO	------CONCERN-------
		S	1	NSRS	A3			SR				XX-85-049-X03

.WORDS: CERTIFICATION IMPLEMENTATION FALSE NONSPEC PROB: WCPIF

SEQUOYAH: WELDER CERTIFICATION CARD FALSIFIED. CONSTRUCTION DEPT CONCERN. CI HAS NO MORE INFORMATION.

IR: I-85-135-SQN STAT: RC:

TECHNICAL COMMENTARY:

SUMMARY OF SQN SPECIFIC EMPLOYEE CONCERNS REVIEWED BY WELDING PROJECT

EMPLOYEE CONCERN NUMBER	ISSUE	WP ACTION
XX-85-088-003	Alterations to Welder Qualification Records in Knoxville	Not substantiated by ERT Report XX-85-088-003 of 3/8/86 (Attachment 3).
XX-85-124-001	Burial of Electrode Stubs	Not safety-related. No action required.
XX-85-086-003	Box Anchor Design Deficiency.	Substantiated by NSRS Report I-85-560-SQN (Attachment 3). WP concurs with report recommendations.
XX-85-069-003-R1	Acceptance of Previously Rejected NDE Items	Not Substantiated by NSRS Report I-85-738-SQN (Attachment 3). WP concurs with report recommendations.
SQM-5-001-001 SQM-5-001-002 WBM-5-001-002 (Also Listed in the Generic Summary)	Uncertified Welder Foreman Performing Preweld Inspections	Substantiated by WP Evaluation Report WP-16-SQN (Attachment 3). Interim corrective actions are being formulated. Closure is based on these actions. Additional corrective actions may be implemented.
XX-85-068-007	Manufacture of Dravo Spool Piece	Not substantiated by NSRS REPORT I-85-636-SQN (Attachment 3).
XX-85-069-001 XX-85-069-001-R1 XX-85-069-X05 XX-85-069-007	Inadequate OJT-Records for ISI and QC Personnel for NO	The general issue of inadequate OJT-records was substantiated by NSRS Report I-85-373-NPS (Attachment 3). No falsification of records was substantiated. WP concurs with report recommendations.

EMPLOYEE CONCERN NUMBER	ISSUE	WP ACTION
SQM-6-005-001 SQM-6-005-X02	Craft Welder Incapable of Making Proper Welds	SQM-6-005-001 was substantiated; SQM-6-005-X02 was not substantiated by NSRS Report I-86-115-SQN (Attachment 3). WP concurs with report.
XX-85-013-001	E309 Electrode Used to Weld E316 Steels	This is an acceptable practice. ERT investigated in ERT Report XX-85-013-001, dated 3/22/85 (Attachment 3). WP concurs.
XX-85-041-001	Improper Weld Rod Used in Diesel Generator Building	Not substantiated by NSRS Report I-85-756-SQN (Attachment 3).
XX-85-049-001 XX-85-049-X03	Welder Certifications Updated Without Meeting Requirements	XX-85-049-001 was substantiated as it relates to Welder Continuity Requirements. This had previously been identified by NO in an audit. XX-85-049-X03 was not substantiated. Details and recommendations are given in NSRS Report I-85-135-SQN (Attachment 3). WP concurs with I-85-135-SQN-01 through -03 and recommends they be closed based on the WP-Bechtel Audit of SQN in Key Elements 4.0, 5.0, and 17.0 (Attachment 4).
XX-85-054-001	QC Holdpoint Sign-Off Violation	Not substantiated by NSRS Report I-85-346-SQN (Attachment 3).
XX-85-065-001	Performance of Remote Visual Inspections	Not substantiated by NSRS Report I-85-750-SQN (Attachment 3).

EMPLOYEE CONCERN NUMBER	ISSUE	WP ACTION
XX-85-083-001	SQN Weld Inspections not as Strict as WBN	Not substantiated by NSRS Report I-85-652-SQN (Attachment 3).
XX-85-098-001	Laminated Pipe in Unit 2 Condenser. This issue is also on the Generic Summary	Not safety-related. Not substantiated by WP Evaluation Report WP-18-SQN (Attachment 3).
XX-85-100-001	Improper Weld Repair on an Undetermined Number of Welds	Not substantiated by ERT Report XX-85-100-001, dated 3/5/86 (Attachment 3).
XX-85-101-006	Welder Certification for the Construction Era	ERT Report XX-85-101-006 (Attachment 3) with NSRS Recommendations indicates that this concern is substantiated. WP takes exception to this ERT Report based on subsequent information provided in Attachment 4. WP exceptions, recommendations, and basis for closure were discussed with NSRS as documented in Attachment 5. WP recommends this concern not be substantiated and that it be closed based on the WP-Bechtel Implementation Audit, Key Elements 4.0, 5.0, 17.0 (Attachment 6).
XX-85-102-011	NDE Inspectors Cannot Write Notice of Indications for Preservice-Related Defects	Not substantiated by NSRS Report I-85-735-SQN (Attachment 3).
XX-85-108-001 XX-85-108-002	Socket Welds Not Inspected	Not substantiated by NSRS Report I-85-776-SQN (Attachment 3).

PROGRAM SUMMARIZATION OF WELD PROJECT (WP) EVALUATION

This package summarizes the actions taken by the Welding Project (WP) to evaluate and disposition the subject SQN-specific employee concern which was previously evaluated by NSRS/QTC/ERT and summarized in WP Phase I and Phase II reports.

The Welding Project analyzed each SQN-specific employee concern to determine the statement(s) being voiced by these individuals.

These statements were then evaluated both individually and collectively to develop issues.

Each issue was then incorporated into the WP review activities of Phase I, "Procedural Assessment" and Phase II, "Procedural Implementation."

During Phase I, each issue was analyzed against requirements of the applicable QA program, policies, NSRS/QTC/ERT Investigation Reports, and other relevant information to determine if program elements were deficient when evaluated against upper-tier requirements.

Phase II consisted of a sample reinspection of hardware and independent program audit by Bechtel.

In each area analyzed by Bechtel, the auditors found no objective evidence to substantiate the employee concerns considered. The following areas directly related to employee concerns were investigated by the audit team:

1. Welder qualification and attendant records

2. Welder qualification and attendant on-the-job-training

3. Welding inspections

4. Welding inspectors training programs

5. Weld material traceability

6. Welding inspections by craft personnel

7. Weld material control

Each of these areas was investigated by the auditors for both construction and operations phases. In all cases, there was no objective evidence to substantiate the employee concerns. The audit report concludes that both construction and operations phases have had and now have a functioning Welding Quality Assurance Program which meets code, standard, and regulatory requirements and that the employee concerns considered were found to be unsubstantiated and without technical merit.

The results of the reinspection program at SQN also give another, additional verification of the Welding Quality Assurance Program for both construction and operations phases and serve to establish additional confidence in the accuracy and implementation of these programs through hardware inspections and attendant document reviews. In all cases, the components and items were found to be acceptable upon initial reinspection or found to be acceptable after engineering analysis.

The WP analysis of SQN-Specific Employee Concerns supplemented by the independent Bechtel Audit, reinspection of installed components and system, and independent (NSRS) overview and investigations has not revealed any significant or generic inadequacies in the welding programs for either the construction or operations phase at SQN which have been directly identified through the Employee Concern Program. The Employee COncern Program has simply reiterated problems which have been or are now being resolved through existing corrective action programs in the overall Nuclear Quality Assurance Program.

A summary analysis of the WP evaluations and recommendations is included in Attachment.

CORRECTIVE ACTION PLAN

The following proposed Corrective Action Plant (CAP) has been received from the Director/Manager at Sequoyah Nuclear Plant (SQN). This is a response to Corrective Action Tracking Document (CATD).

I. A. Problem Description - CATD I-85-135-SQN-01 -006

Evaluation of Previous Welder Continuity Records.

B. Corrective Action Plan

Nuclear Operations welder continuity problems were identified by Quality Assurance (QA) Survey and have been corrected (SQN-CAR-85-09-014).

The January 1986 Bechtel Audit addressed welders qualifications, maintenance/continuity update and renewal verifying that these corrective actions have been implemented.

The Welding Project (WP) has reviewed the subject concerns, the subject report and the recommendations in the subject report. The WP has also made a detailed review of the completed independent (Bechtel) audit of the SQN Welding Program. The WP considers the corrective action complete.

C. Action to prevent recurrence.

See item III C.

II. A. Problem Description - CATD I-85-135-SQN-02-007

Corrective action backfit evaluation.

B. Corrective Action Plan

As part of the evaluation of corrective actions of identified deficiencies on Corrective Action Reports (CARs), the SQN QA Organization now requires that corrective actions address not only the correction of the listed deficiency, but also actions to identify and correct similar adverse conditions. These additional actions will dictate on a case-by-case basis as to whether a backfit (historical) evaluation is appropriate and to what extent.

C. Action to prevent recurrence.

N/A

III. A. Problem Description - CATD J-85-135-SQN-03-008

Verification of corrective action taken on SQ-CAR- 85-09-014

B. Corrective Action Plan

Plant personnel reviewed all active and inactive Welder Qualification records maintained in the welder continuity file cabinet during the resolution of the CAR and documented discrepancies found and corrective action taken.

QC personnel reviewed the plant response to the CAR which included records of all discrepancies found and corrective action taken.

QC personnel performed a random sample to verify that corrective action taken was adequate prior to closing the CAR.

C. Action to prevent Recurrence

A welding engineer position has been added to the Site Services staff. In addition to current QA audits, he will provide a general surveillance of the welding program on a periodic basis.

Welding continuity efforts are being maintained by toolroom personnel who have gained experience in recent periods which reduces errors.

A memorandum has been placed in each active welder's file noting review (copy attached). This memorandum documents that all identified deficiencies were corrected whether reported by the weld-test representatives or the QA staff. SQ-CAR-85-09-014 lists only those specific deficiencies identified by QA and does not necessarily include these deficiencies identified by the weld-test representatives.

Revisions will be made to M&AI-5, clarifying responsibilities and requirements. Estimated completion date December 31, 1985.

A meeting of weld-test representatives from SQN, WBN, and BFN, was conducted to review requirements and practices.