EMPLOYEE CONCERNS

SPECIAL PROGRAM

VOLUME 5
WELDING CATEGORY

SUBCATEGORY REPORT 50200
BELLEFONTE NUCLEAR PLANT

UPDATED

TVA

NUCLEAR POWER

TVA EMPLOYEE CONCERNS
SPECIAL PROGRAM

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Preface, Glossary, and List of Acronyms
for ECTG Subcategory Reports

HISTORY OF REVISION

REV NUMBER	PAGES REVISED	REASON FOR CURRENT REVISION
3	i	To clarify that one or more attachments will help the reader find where a particular concern is evaluated

Preface

This subcategory report is one of a series of reports prepared for the Employee Concerns Special Program (ECSP) of the Tennessee Valley Authority (TVA). The ECSP and the organization which carried out the program, the Employee Concerns Task Group (ECTG), were established by TVA's Manager of Nuclear Power to evaluate and report on those Office of Nuclear Power (ONP) employee concerns filed before February 1, 1986. Concerns filed after that date are handled by the ongoing ONP Employee Concerns Program (ECP).

The ECSP addressed over 5800 employee concerns. Each of the concerns was a formal, written description of a circumstance or circumstances that an employee thought was unsafe, unjust, inefficient, or inappropriate. The mission of the Employee Concerns Special Program was to thoroughly investigate all issues presented in the concerns and to report the results of those investigations in a form accessible to ONP employees, the NRC, and the general public. The results of these investigations are communicated by four levels of ECSP reports: element, subcategory, category, and final.

Element reports, the lowest reporting level, will be published only for those concerns directly affecting the restart of Sequoyah Nuclear Plant's reactor unit 2. An element consists of one or more closely related issues. An issue is a potential problem identified by ECTG during the evaluation process as having been raised in one or more concerns. For efficient handling, what appeared to be similar concerns were grouped into elements early in the program, but issue definitions emerged from the evaluation process itself. Consequently, some elements did include only one issue, but often the ECTG evaluation found more than one issue per element.

Subcategory reports summarize the evaluation of a number of elements. However, the subcategory report does more than collect element level evaluations. The subcategory level overview of element findings leads to an integration of information that cannot take place at the element level. This integration of information reveals the extent to which problems overlap more than one element and will therefore require corrective action for underlying causes not fully apparent at the element level.

To make the subcategory reports easier to understand, three items have been placed at the front of each report: a preface, a glossary of the terminology unique to ECSP reports, and a list of acronyms.

Additionally, at the end of each subcategory report will be a Subcategory Summary Table that includes the concern numbers; identifies other subcategories that share a concern; designates nuclear safety-related, safety significant, or non-safety related concerns; designates generic applicability; and briefly states each concern.

Either the Subcategory Summary Table or another attachment or a combination of the two will enable the reader to find the report section or sections in which the issue raised by the concern is evaluated.

The subcategories are themselves summarized in a series of eight category reports. Each category report reviews the major findings and collective significance of the subcategory reports in one of the following areas:

- management and personnel relations
- industrial safety
- construction
- material control
- operations
- quality assurance/quality control
- welding
- engineering

A separate report on employee concerns dealing with specific contentions of intimidation, harassment, and wrongdoing will be released by the TVA Office of the Inspector General.

Just as the subcategory reports integrate the information collected at the element level, the category reports integrate the information assembled in all the subcategory reports within the category, addressing particularly the underlying causes of those problems that run across more than one subcategory.

A final report will integrate and assess the information collected by all of the lower level reports prepared for the ECSP, including the Inspector General's report.

For more detail on the methods by which ECTG employee concerns were evaluated and reported, consult the Tennessee Valley Authority Employee Concerns Task Group Program Manual. The Manual spells out the program's objectives, scope, organization, and responsibilities. It also specifies the procedures that were followed in the investigation, reporting, and closeout of the issues raised by employee concerns.

ECSP GLOSSARY OF REPORT TERMS*

classification of evaluated issues the evaluation of an issue leads to one of the following determinations:

Class A: Issue cannot be verified as factual

Class B: Issue is factually accurate, but what is described is not a problem (i.e., not a condition requiring corrective action)

Class C: Issue is factual and identifies a problem, but corrective action for the problem was initiated before the evaluation of the issue was undertaken

Class D: Issue is factual and presents a problem for which corrective action has been, or is being, taken as a result of an evaluation

Class E: A problem, requiring corrective action, which was not identified by an employee concern, but was revealed during the ECTG evaluation of an issue raised by an employee concern.

collective significance an analysis which determines the importance and consequences of the findings in a particular ECSP report by putting those findings in the proper perspective.

concern (see "employee concern")

corrective action steps taken to fix specific deficiencies or discrepancies revealed by a negative finding and, when necessary, to correct causes in order to prevent recurrence.

criterion (plural: criteria) a basis for defining a performance, behavior, or quality which ONP imposes on itself (see also "requirement").

element or element report an optional level of ECSP report, below the subcategory level, that deals with one or more issues.

employee concern a formal, written description of a circumstance or circumstances that an employee thinks unsafe, unjust, inefficient or inappropriate; usually documented on a K-form or a form equivalent to the K-form.

evaluator(s) the individual(s) assigned the responsibility to assess a specific grouping of employee concerns.

findings includes both statements of fact and the judgments made about those facts during the evaluation process; negative findings require corrective action.

issue a potential problem, as interpreted by the ECTG during the evaluation process, raised in one or more concerns.

K-form (see "employee concern")

requirement a standard of performance, behavior, or quality on which an evaluation judgment or decision may be based.

root cause the underlying reason for a problem.

*Terms essential to the program but which require detailed definition have been defined in the ECTG Procedure Manual (e.g., generic, specific, nuclear safety-related, unreviewed safety-significant question).

Acronyms

AI	Administrative Instruction
AISC	American Institute of Steel Construction
ALARA	As Low As Reasonably Achievable
ANS	American Nuclear Society
ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWS	American Welding Society
BFN	Browns Ferry Nuclear Plant
BLN	Bellefonte Nuclear Plant
CAQ	Condition Adverse to Quality
CAR	Corrective Action Report
CATD	Corrective Action Tracking Document
CCTS	Corporate Commitment Tracking System
CEG-H	Category Evaluation Group Head
CFR	Code of Federal Regulations
CI	Concerned Individual
CMTR	Certified Material Test Report
COC	Certificate of Conformance/Compliance
DCR	Design Change Request
DNC	Division of Nuclear Construction (see also NU CON)

DNE	Division of Nuclear Engineering
DNQA	Division of Nuclear Quality Assurance
DNT	Division of Nuclear Training
DOE	Department of Energy
DPO	Division Personnel Officer
DR	Discrepancy Report or Deviation Report
ECN	Engineering Change Notice
ECP	Employee Concerns Program
ECP-SR	Employee Concerns Program-Site Representative
ECSP	Employee Concerns Special Program
ECTG	Employee Concerns Task Group
EEOC	Equal Employment Opportunity Commission
EQ	Environmental Qualification
EMRT	Emergency Medical Response Team
EN DES	Engineering Design
ERT	Employee Response Team or Emergency Response Team
FCR	Field Change Request
FSAR	Final Safety Analysis Report
FY	Fiscal Year
GET	General Employee Training
HCI	Hazard Control Instruction
HVAC	Heating, Ventilating, Air Conditioning
II	Installation Instruction
INPO	Institute of Nuclear Power Operations
IRN	Inspection Rejection Notice

L/R	Labor Relations Staff
M&AI	Modifications and Additions Instruction
MI	Maintenance Instruction
MSPB	Merit Systems Protection Board
MT	Magnetic Particle Testing
NCR	Nonconforming Condition Report
NDE	Nondestructive Examination
NPP	Nuclear Performance Plan
NPS	Non-plant Specific or Nuclear Procedures System
NQAM	Nuclear Quality Assurance Manual
NRC	Nuclear Regulatory Commission
NSB	Nuclear Services Branch
NSRS	Nuclear Safety Review Staff
NU CON	Division of Nuclear Construction (obsolete abbreviation, see DNC)
NUMARC	Nuclear Utility Management and Resources Committee
OSHA	Occupational Safety and Health Administration (or Act)
ONP	Office of Nuclear Power
OWCP	Office of Workers Compensation Program
PHR	Personal History Record
PT	Liquid Penetrant Testing
QA	Quality Assurance
QAP	Quality Assurance Procedures
QC	Quality Control
QCI	Quality Control Instruction

QCP	Quality Control Procedure
QTC	Quality Technology Company
RIF	Reduction in Force
RT	Radiographic Testing
SQN	Sequoyah Nuclear Plant
SI	Surveillance Instruction
SOP	Standard Operating Procedure
SRP	Senior Review Panel
SWEC	Stone and Webster Engineering Corporation
TAS	Technical Assistance Staff
T&L	Trades and Labor
TVA	Tennessee Valley Authority
TVTLC	Tennessee Valley Trades and Labor Council
UT	Ultrasonic Testing
VT	Visual Testing
WBECSP	Watts Bar Employee Concern Special Program
WBN	Watts Bar Nuclear Plant
WR	Work Request or Work Rules
WP	Workplans

Index

1.0 CHARACTERIZATION OF ISSUES

1.1 Introduction

The characterization of issues for this subcategory report are derived from 79 Employee Concerns. Of the 79 Employee Concerns, 19 were specific to BLN (53 specific to WBN, 3 specific to BFN, 3 specific to SQN, 1 non plant specific). The Employee Concerns were divided into 13 similar issues and were investigated by the Weld Project, Quality Technology Company (QTC) and/or the Nuclear Safety Review Staff (NSRS). Each of the 13 issues was addressed by a Weld Project Evaluation Report which will be provided to the USNRC as a portion of the Weld Project effort. IR4

1.2 Description of Issues

1.2.1 Control of Welding Filler Material

1.2.2 Inspection of Welds Through Carbo-Zinc Primer

1.2.3 Welder Qualification Continuity

1.2.4 Inspection Tools

1.2.5 Inspector Qualification

1.2.6 Welder Training/Experience

1.2.7 Implementation of Quality Assurance Evaluation QAE-2

1.2.8 Welding Equipment And Bottled Gases

1.2.9 Structural Steel Preweld Inspections

1.2.10 Weld Quality

1.2.11 Weld Inspection Procedures

1.2.12 Weld Repairs

1.2.13 Adequacy of Procedures

2.0 METHODOLOGY

The procedure and specification histories of Bellefonte Nuclear Plant, from the beginning of construction to the present, were reviewed. These procedures and specifications were compared with the construction codes that were in effect during each phase of the procedure history. The

Bellefonte Weld Project Phase I Report (draft) and the Weld Project Evaluation (draft) Reports for Sequoyah, Browns Ferry, and Watts Bar were reviewed. The expurgated text of the concerns was compared with the requirements defined in the construction codes and the commitments made in the Topical Report (TVA-TR-75-1A). A review was made of quality indicators such as the USNRC inspection reports and the TVA audit and deficiency reporting documents issued over the life of the plant. As appropriate to the issues, discussions were held with cognizant TVA Construction, Engineering, Quality, and Craft Supervisory personnel.

3.0 ISSUES, FINDINGS, AND CONCLUSIONS

3.1 Control of Welding Filler Material

The concerns stated that weld rods are not required to be kept in rod ovens after issue; questioned the quality of coated electrodes; questioned the adequacy of welding filler material control; that ASME deviations and violations for uncontrolled weld rod are reported on "non quality" inspection reports; and questioned the administrative practices for return of unused and waste welding filler material.

Review of the procedure history for weld filler material control at Bellefonte (BLN) revealed that all of the necessary moisture absorption controls for low hydrogen coated electrodes have been in place throughout the life of the plant. The issue of coated electrodes was only allowed from freshly opened hermetically sealed containers or holding ovens. By classification, Quality Control Procedure BNP-QCP-8.1 established maximum allowable atmospheric exposure times for coated electrodes. These exposure times were in accordance with The American Welding Society Structural Welding. Code, AWS D1.1.

In 1979, the Structural Welding Code was changed to allow alternative atmospheric exposure time periods for coated electrodes. These extended exposure periods could be used provided the user established the maximum atmospheric exposure time by performing qualification tests prescribed by AWS.

G-29M Process Specification 1.M.3.1, "Specification for Welding Materials Control," was revised in 1980 (revision 7) to incorporate the alternative rules of AWS D1.1-1979 and to provide the requirements for the extended atmospheric exposure test.

In mid 1980, the BLN procedure for control of welding filler materials was also revised to reflect changes in the 1979 edition of the Structural Welding Code.

The former practice (prior to mid 1980) for controlling moisture absorption in E7018 electrodes was replaced with the new AWS rules which permitted TVA to extend the atmospheric exposure time after performing qualification tests prescribed by the structural code, AWS D1.1. The changes met all of the requirements of the AWS D1.1.

Portable rod ovens are used on a limited basis at BLN to protect certain high strength, low alloy electrodes. Use of the portable ovens is provided for in the TVA Process Specification for welding materials control. It is not, however, addressed by the implementing procedure. CATD 50201-BLN-01 was issued to recommend that the implementing procedure be revised to reflect actual practice.

Corrective Action Plan

Procedure BNP-QCP-8.1 will be revised to outline the conditions under which the use of portable rod ovens will allow exception to the stated maximum percentage of issue for coated electrodes.

The issue involving the quality of coated electrodes evolved from the operability problems with E7018 electrodes. The problems were related to the fragility of the coatings causing the electric arc to "wander", which made starting the arc difficult, and made the electrodes tend to stick to the workpiece. Additionally, porosity may be associated with electrode coating problems, especially at the start of the weld bead. In two instances, the electrodes were returned to the suppliers. In one case, testing showed that the electrodes, while requiring more care in the welding operation, were suitable for use. These electrodes were retained and used. The difficulty in operability did not result in hardware defects in the final welds. Additionally, these electrodes were purchased in accordance with the requirements of ASME Sections II and III, and met the code requirements.

Earlier revisions of the filler material control procedure were not as stringent in the control of waste material as the current procedure. These earlier revisions did, however, satisfy the ASME and AWS Code requirements. There was a short period in later 1979 and early 1980 when a general laxity on the part of the welders in attending to their filler material and waste was identified. There have been occasional isolated occurrences of failure to follow the control procedure. These problems were principally violations of construction practices and of a housekeeping nature, rather than violations of the codes.

Where problems have been identified, corrective and preventive actions were effectively implemented. Control of welding filler material at BLN meets the requirements of the ASME and the AWS Codes.

The Welding Surveillance Checklist is used in part to report and resolve deviations in the control of welding filler material. The completed checklists are not routinely distributed to the Authorized Nuclear Inspector (ANI). The ANI has access to any of the various quality records initiated at BLN. Certain records are routinely provided to the ANI for his review, establishment of hold points, and in certain instances, his concurrence. With regard to ANI review and approval, the key element is whether or not a reported deficiency is ASME Code related.

The Welding Surveillance Checklists issued from 1975 through 1985 were reviewed. Where filler material control deviations were reported, they were general in nature. Examples are stubs laying around the work areas, damaged shipping containers, rod not in the immediate control of the welder, and general storage practices. These deviations gave no indication of incorrect, uncontrolled or defective material being used in ASME applications.

Quality Control Investigation Reports and Nonconforming Condition Reports were also reviewed. Where discrepancies relating to filler material used in ASME applications were reported, the dispositions were presented to the ANI for concurrence. Examples are incorrect filler material recorded on process documents, incorrect identification on containers for material used in ASME work, and discrepancies in certified mill test reports.

Review and discussion with cognizant TVA Welding and Quality Control personnel showed that, where appropriate, the ANI was involved in the resolution of reported problems with welding filler material control. Discussion with the Bellefonte Authorized Nuclear Inspector revealed that he is in agreement with the reporting methods described above. Further, the ANI stated that he is aware of the results of the surveillance and has had the opportunity to witness the surveillances being performed. He also, from time to time, reviews the surveillance reports. Thus, even where the program does not require ANI review or concurrence, he is aware of any problems relating to filler material control at BLN.

The administrative practices for return of unused and waste filler material were found to have no welding technical significance. Discussion with the Welding Quality Control and Welding Engineering Supervisors indicate that this issue has not been a problem at BLN. These concerns were originated at Watts Bar and applied to Bellefonte for evaluation for generic applicability. This part of the filler material control issue is generically evaluated in Management and Personnel Subcategory Report Number 70200, and is not addressed further by this report.

Complete details of the evaluation of this issue are discussed in Weld Project Evaluation Report WP-01-BLN. IR4

3.2 Inspection of Welds Through Carbo-Zinc Primer

The issue relating to the process specification allowing inspection of primed welds evolved from a major reinspection effort at WBN. While the specification in question was site unique to WBN, a similar effort did take place at Bellefonte.

Beginning in May 1980, a series of Nonconforming Condition Reports began a major reinspection of fillet welds for leg size and throat depth. In that these reinspections were for configurational attributes which would not be masked by the coatings, an engineering decision was made to perform the reinspections with the coatings intact. This type reinspection activity is not a violation of the Structural Welding Code.

The reason for the employee concerns relating to inspection of coated welds at BLN is the application of WBN concerns to other TVA nuclear sites for evaluation for generic implications. While certain reinspection of coated welds did occur at BLN, they were performed in accordance with the approved dispositions to Nonconforming Condition Reports, and were not the subject of any employee concerns initiated at BLN.

The American Welding Society Structural Welding Code, AWS D1.1-1974, paragraph 3.10.1 states in part "...welded joints shall not be painted until after the work has been completed and accepted". The provisions of AWS D1.1, Paragraph 3.10.1 are intended to prevent coating prior to inspection for weld quality, i.e., examination for discontinuities in the weld. Weld size and configuration, unlike discontinuities, are not masked by primer or paint.

TVA met the provisions of AWS D1.1, Paragraph 3.10.1 during the initial acceptance inspections. The limited reinspection of coated welds for size and/or configuration is within the authority of the Engineer and is not considered to be a departure from the requirements of the governing code. This may be evidenced by the current widespread use of Nuclear Construction Issues Group Standard NCIG-01, which provides for limited reinspection of coated welds.

Discussions with cognizant TVA Welding personnel indicated that these procedures were complied with in that first line acceptance inspections performed at Bellefonte were of non coated welds.

Complete details of the evaluation of this issue are discussed in Weld Project Evaluation Report WP-02-BLN. IR4

3.3 Welder Qualification Continuity

The concerns implied that welders' qualification continuity was updated with inadequate or no evidence that the welder had used a welding process within the specified time frame; that personnel whose duties do not require welding continue to have their qualifications updated; that welders on restriction (not allowed to weld) kept their qualification continuity updated; that one welder could weld or complete another welder's test plate during qualification testing; and questioned the number of bend test specimens required by Muscle Shoals for qualification testing.

From the beginning of construction, Welding Engineers assigned to the Mechanical Engineering Unit (MEU) were responsible to verify quarterly that each welder had maintained his qualification by using a welding process for which he was qualified. This qualification was documented on a Welder Qualification Verification Card, which was maintained in the MEU files.

In January 1976, BLN changed the documentation of welder qualification continuity from the manual Welder Qualification Verification Card to a computerized system. This system was maintained by the Welding Engineering Unit, and permitted timely identification of any welder approaching a qualification continuity renewal date.

In June 1982, BLN included a verification by the Foreman that a weld process was used by the welder. This verification is documented on the Welding Material Requisition, which then becomes the basis for updating the computerized welder listing. Review of the historical file of deficiency reporting documents and USNRC Inspection and Enforcement (IE) Reports failed to identify any violations relative to this issue.

The Bellefonte implementing procedure for Welder Qualification parallels the requirements of ASME Section IX. The implementing procedure for ASME Section IX and AWS D1.1 specify that to be qualified, the individual's primary duty must be welding. The only requirement imposed by the codes for remaining qualified is the use of the process or processes within the specific time frames. Even though there is not a mandatory requirement, only personnel actively engaged in welding activities are qualified at Bellefonte. The qualifications of individuals in welder foremen positions are not updated even though provided for in the Bellefonte implementing procedure.

Neither ASME Section IX nor AWS D1.1 uses the term restriction when referring to welder qualification. The only requirements mandated by the codes relative to qualification continuity update or requalification are the use of the process or processes within the specified time frames and questionable performance. The Bellefonte implementing procedure for welder qualification mandates, in addition to the code requirements, that a welder's qualification is revoked when he/she violates the Quality Assurance Program. Reinstatement, to include retesting, is up to the discretion of the Welding Engineering Unit.

The only other instance where welders might be considered "restricted" from welding is when they have a personal injury or sickness that prevents them from physically performing the welding activity. These individuals are allowed to maintain their qualifications up to the time for qualification continuity update. At this time, if they have not returned to a welding status and used the process or processes, their qualifications are rescinded. These individuals must retest for reinstatement of their qualifications.

The test shop at Bellefonte is relatively small and arranged in such a manner that the Weld Test Supervisor or designated assistant always has observation and control of all activities during testing. Additionally, if two individuals are observed in the same test booth at any time or for any reason during testing, both individuals are immediately suspended from further testing and denied qualification.

In the 1974 Edition of ASME Section IX, paragraph QW-302.3 was omitted. The omission of QW-302.3 could lead to the interpretation that only two bend test were required. QW-302.3, which clearly defines the requirement for four bend test specimens to qualify to the 5G and 6G positions, was reinstated by the Errata to the 1974 Summer Addenda to ASME Section IX. Initial qualification of welders at Bellefonte did not begin until early 1975, therefore, the Bellefonte program was set up to the requirements of the 1974 Edition of ASME Section IX Summer Addenda. Additionally, Welding Engineering at Bellefonte does not certify welders transferred from other sites without reviewing their Performance Qualification Test Record (PQT). Those welders without a PQT are tested prior to being issued a Bellefonte welder certification card.

The implementing procedure for welder performance qualification requires the Welding Engineering Unit to maintain a file for qualification verification for all welders, but the procedure does not provide instructions for updating this file. The implementing procedure for weld filler material control provides instructions for completing the Weld Material Requisition, which is the basis for updating the welder qualification file, but does not provide the instructions for disposition of the form. Currently there are no guidelines in the text of either procedure that shows their respective relationship. As a program enhancement, CATD 50203-BLN-01 was issued to recommend that these procedures be revised to provide the instructions for updating the welder qualification file and to provide instructions for disposition of the Weld Material Requisition.

Complete details of the evaluation of this issue are discussed in Weld Project Evaluation Report WP-03-BLN. IR4 I

THIS ITEM COMPLETED
DATE 3-30-88

Corrective Action Plan

Procedure QCI 9.2 and/or 10.2 will be revised to clarify the instructions for updating welder qualifications.

3.4 Inspection Tools

The issue that inspectors at Bellefonte were not issued inspection tools until recently evolved from Watts Bar concerns applied to other TVA nuclear sites for generic applicability. This issue is partially factual at Bellefonte.

Discussion with cognizant TVA personnel revealed that locally fabricated tools, such as angle, bevel and gap gauges and commercially procured undercut gauges, six inch machinist scales, and flashlights were available at Bellefonte from the beginning of construction. Further discussion did indicate, however, that commercially procured fillet weld gauges were not available until early 1980 and that the six inch scale was the basic tool used to verify socket and fillet weld size. All inspection tools necessary to perform the required weld inspections were available. IR4 IR4

In recent years, as construction has advanced and as the need for more precise verifications of weld attributes was identified through program improvements, more sophisticated inspection tools have been procured and provided to the welding units. More advanced tools such as commerically manufactured multiple purpose, hi-lo and bevel gauges have been purchased. This is not to imply that earlier tools issued were not adequate for performing the intended inspection activity.

The inspection methodology before the 1980's was somewhat different from the post 1980 methodology. The post 1980 methodology is that every lineal increment of all weld segments must be at least the specified weld size. The pre 1980 methodology implied that the norm was to measure socket and fillet welds in three or four places along the length of the weld, especially the low areas, then accept or reject the weld. Even though this may not be an acceptable practice today, it was not unique to any one site, utility or contractor. Many utilities throughout the country underwent extensive socket and fillet weld reinspection programs in the early 1980's.

From 1980 to 1982 several Nonconforming Condition Reports were issued at BLN to document undersized fillet and socket welds. Beginning in 1980, most utilities, including TVA, procured "GO NO-GO" type fillet guage and conducted massive reinspections of fillet and socket welds. The reinspection required exact measurement of the entire length of the weld. R4

The root cause for fillet and socket weld size was principally caused by a change in methodology as explained above. The extensive reinspections which followed the change in measurement practices may have been perceived as a result of failure to provide the inspectors with adequate measuring devices. R4

The reinspection program resulting from the NCRs not only included a measurement of the welds using fillet weld gauges, but also required detailed mapping of each weld. As evidenced by the results of the reinspection effort, practically all the welds rejected were of nominal size. These welds had small areas of undersize, which was not indicative of the entire weld, and areas that were oversized compensated for the undersized portions. As a result of this effort, a detailed design engineering analysis of each weld, to determine suitability for service, has required less than ten welds to be reworked out of the thousands of welds rejected.

Complete details of the evaluation of this issue are discussed in Weld Project Evaluation Report WP-04-BLN. R4

3.5 Inspector Qualification

The concerns questioned the adequacy of the training received by the welding inspector prior to 1981 and exceptions taken to ANSI N45.2.6, as specified in TVA's Topical Report (TVA-TR75-1A). The concerns stated that an inspector should be a welder in order to know what to look for in a good weld and that welding inspectors at Bellefonte do not appear to be knowledgeable about welding.

It is true that some welding inspectors were qualified with approximately two months on the job training at the beginning of construction. This, however, does not represent a problem.

At the beginning of construction at Bellefonte, inspection personnel were members of the Mechanical Engineering Unit whose principal duties were performance of inspection and nondestructive examination. These inspections were performed to clearly defined acceptance criteria. Site certification was required for each procedure under which an inspection was performed. Inspection personnel received training under the direction of the responsible Engineering Unit Supervisor, and were tested by the Quality Assurance Engineering Unit.

Inspector qualification has been the subject of Engineering, Supervisory and USNRC attention throughout the history of the plant. TVA at Bellefonte paralleled the general industry practices in the development, improvement and refinement of the programs for training and qualification of welding inspectors. It is probable that major improvements made during 1981 were seen by some as the beginning of the TVA attention to inspector qualification. This would possibly lead to a conclusion that prior to 1981, inspectors were not trained or were inadequately trained. Clearly, this is not the case at Bellefonte Nuclear Plant.

It is important to note that the commitment made through the Quality Assurance Topical Report is to USNRC Regulatory Guide 1.58, Revision 1, rather than a direct commitment to ANSI N45.2.6.

The TVA program for certification of weld inspection and examination personnel, with the exceptions taken through the Quality Assurance Topical Report, are not a degradation of ANSI N45.2.6. These exceptions are provided for by USNRC Generic Letter 81-01, which requires either commitment to Regulatory Guide 1.58 or submittal of an alternate plan. Topical Report TVA-TR75-1A, which has been approved by the USNRC, satisfies the requirements of Generic Letter 81-01.

There is no code or regulatory requirement for a welding inspector to also be a welder. In the American Welding Society Certification Manual for Welding Inspectors, it is recognized that experience as a welder is of benefit to the inspector. It is, however, also stated that whether or not this is a requirement is the employer's option.

With regard to the concern which states that the welding inspectors at Bellefonte do not appear to be knowledgeable about welding, there is insufficient detail in the text of the concern to determine what the perceived problem is, i.e., what welding knowledge the inspector does not possess. The material issue then, must be whether or not the TVA welding inspector at BLN has sufficient welding related knowledge to adequately perform his duties. If the competence of the welding inspector is the material issue, the concern is not factual.

The evaluation, including discussions with engineering and inspection personnel, review of the program, nonconformance history, and the USNRC inspection and enforcement history at Bellefonte clearly shows that the welding inspectors are adequately trained and tested. With one exception, no evidence was identified to suggest a problem with the competence of the welding inspectors at Bellefonte. This one exception involved a single inspector, and was identified and corrected through the ongoing site Quality Assurance Program.

Complete details of the evaluation of this issue are discussed in Project Weld Evaluation Report WP-06-BLN. |R4

3.6 Welder Training/Experience

The concern stated that subjourneymen perform work for which they are not qualified (pipe fit-ups and welds) and questioned the TVA welder training program.

This concern was a Watts Bar concern applied to Bellefonte for evaluation for generic applicability. A review of the historical welder qualification records revealed that none of the individuals identified as subjourneymen, who had been employed at Bellefonte, were ever qualified as welders.

TVA utilization of subjourneymen is in accordance with the trade labor agreement and commensurate with management practices throughout the construction industry.

The TVA welder training program at BLN requires that the individuals who perform production welding be qualified in accordance with the requirements of ASME Section IX or AWS D1.1, as applicable. Additionally, these individuals are tested when referred to the weld test shop by craft supervision. This referral is based on the craft supervision's judgement that the individual has acquired the skills and ability necessary to satisfactorily complete the performance qualification and to produce sound welds.

Complete details of the evaluation of this issue are discussed in Weld Project Evaluation Report WP-07-BLN. |R4

3.7 Implementation of Quality Assurance Evaluation No. QAE-2

The concern stated that the welding and NDE corrective action programs, as identified in Office of Engineering Design and Construction (OEDC) Quality Assurance Evaluation No. QAE-2, dated September 1980, may not have been implemented for Bellefonte as the same/uncorrected problems were found to exist years later, and may still exist today.

QAE-2 did not identify welding and NDE corrective action, but identified recommendations for program improvement. This QA evaluation was conducted upon the request of the TVA Manager of Construction and the Manager of Engineering Design. The objectives of the review were to look at the adequacy and effectiveness of the welding and NDE programs and to report the findings of the review with the appropriate recommendations for improvement. During this review only one observation/deficiency was identified which specifically required corrective action. This deficiency was not issued with report QAE-2, but was identified as a significant deficiency by QA Audit Report BN-W-80-08. Additionally, many of the recommendations are administrative in nature or relate to management practices and have no technical welding related significance. These recommendations will not be addressed in this report.

All technically related welding recommendations of QAE-2 have been implemented in some form at Bellefonte or there were programs already in effect that preempted the necessity for implementation of the recommendations.

Complete details of the evaluation of this issue are discussed in Weld Project Evaluation Report WP-10-BLN. IR4

3.8 Welding Equipment and Bottled Gases

The concerns stated that welding machines do not have suitable amperage settings for welding with 3/32 inch diameter electrodes which leads to porosity and pinholes; welding machines should have the remote switches to prevent tungsten inclusions; and the cleanliness/purity of bottled gases is questionable.

Bellefonte utilized three types of welding equipment, two of which (Lincoln Idealarc 300 and Miller Gold Star 300) have current ranges exceeding 300 amperes and have optional features such as the vernier type current adjustment. The other type of equipment used was the Hobart grid bank/multiple operator unit. These machines have a history of satisfactory performance throughout the industry. The Lincoln Idealarc TIG 300 and the Miller Gold Star 300 do have the remote switches for arc starting and current control adjustment. The Hobart machines used do not have these features. Tungsten inclusions are reduced significantly, however, by employing good welding technique and, if necessary, by using strike plates immediately outside the weld.

Comments from the Bellefonte Quality Assurance Unit (QAU) did indicate a concern relative to the TVA requirements for procurement of welding gases. Comments from the Welding Engineering Staff of the Office of Construction (OC) and a subsequent memorandum from the Chief, Quality Assurance, to the OC Bellefonte Project Manager resolved the issue.

Bellefonte employed welding equipment fully capable of producing satisfactory weldments. Bottled gases are properly controlled and purchased in accordance with procurement requirements.

Complete details of the evaluation of this issue are discussed in Weld Project Evaluation Report WP-13-BLN. |R4

3.9 Structural Steel Preweld Inspections

The concerns stated that allowing uncertified welder foremen to perform preweld inspections is in conflict with the TVA Quality Assurance Commitments, ANSI requirements and AWS D1.1 and that when a welder welds the wrong two sides of square tubing, he goes back and welds the other two sides, thus making an all around weld, which is not in accordance with the drawing.

AWS D1.1 allows preweld inspections to be conducted on a sampling basis. This is clarified in the Commentary to the 1986 Edition to AWS D1.1. As a result of a Quality Assurance audit finding, TVA reported the preweld inspection issue to the USNRC in accordance with 10 CFR 50.55(e).

In the final report to the NRC it was stated that the TVA was meeting the intent of ANSI N45.2.5 as individual requirements of the standard are applied depending upon the nature and scope of the work to be performed and the importance of the item or the service involved. The NRC approved the final report and closed the unresolved item.

One concern raised the issue that the 050 notes (General Notes to Drawing 47A-050) allow fillet welds to be 100% oversized and craft to determine the length. Therefore, when a drawing requires two sides of square tubing to be welded and the welder welds the wrong two, he then welds the other sides thus making a weld that is not per the drawing.

AWS D1.1 requires in part that the size and length of welds shall not be substantially in excess of design requirements nor the location of welds be changed without approval. The TVA General Construction Specification G-29C cites the same requirements for the installation of structural welds.

This concern was a Watts Bar concern evaluated at Bellefonte for generic implication. Discussion with TVA Engineering personnel revealed that the 050 notes are applicable to Watts Bar and are not used at Bellefonte. Further discussion with TVA Quality Control personnel at Bellefonte revealed that all welds not meeting the design drawing are reported in accordance with the Bellefonte Quality Assurance Program.

No significant effect on hardware or the welding program at Bellefonte was identified. TVA rules for structural steel preweld inspections are in compliance with its Quality Assurance commitments, ANSI N45.2.5 and AWS D1.1. Extra welds are appropriately reported under the site Quality Assurance Program.

Complete details of the evaluation of this issue are discussed in Weld Project Evaluation Report WP-16-BLN. IR4

3.10 Weld Quality

The concerns stated that there are bad welds on hangers in the Essential Raw Cooling Water (ERCW) tunnel, cable trays and a duct support in the Control Building; questioned the grinding of welds; and raised the issue of excessive circumferential shrinkage in stainless steel butt joints.

Welds (ERCW tunnel hangers, cable trays and a duct support) not meeting acceptance standards were found in the areas identified by the concerned employees. All support welds, duct support welds and miscellaneous structural welds have been reinspected and reworked as required. This reinspection effort was accomplished in accordance with the dispositions of numerous nonconformances which were considered significant and reported to the USNRC in accordance with 10 CFR 50.55(e).

Grinding of welds is not a violation of codes, standards or BLN procedures. Rather, in many cases these standards require grinding to obtain suitable surfaces for the proper interpretation of the specified NDE and to eliminate or reduce surface imperfections.

The construction codes, specifications and procedures do not quantify an acceptance criteria for circumferential shrinkage in welded butt joints. Distortion, including shrinkage, is inherent in stainless steel weldments. Factors considered are material type and thickness, filler material size, heat input (amperage), and maximum interpass temperature. TVA has implemented detailed welding procedures to minimize distortion and warping when welding stainless steels.

Complete details of the evaluation of this issue are discussed in Weld Project Evaluation Report WP-34-BLN. IR4

3.11 Weld Inspection Procedures

The concerns questioned the deletion of welding and brazing inspection of safety related HVAC ductwork; the acceptance of previously rejected hanger welds by someone other than a supervisor; weld records reviewed by the ANI which had heat numbers marked "NA" and when checked later had heat numbers entered; and stated that an individual falsified containment wall weld records.

The inspection requirements for safety related ductwork were deleted from the Quality Assurance Program subsequent to 1981. This is a Watts Bar Concern, and is not factual at Bellefonte. Bellefonte has had an inspection program for safety related ductwork from the beginning of construction to the present time.

The weld inspection program at Bellefonte requires that rejectable items be documented, and reinspection is accomplished only after the corrective action has been provided. The reinspection may or may not be performed by an inspector at the same certification level as the inspector that previously rejected the item. This issue is a Watts Bar concern applied to other TVA sites for generic applicability.

Weld records reviewed by the ANI had heat numbers marked "NA" and when checked later the heat numbers had been entered. This issue has been closed by the Office of the Inspector General and will not be addressed by this report.

Two concerns stated that weld records on the containment wall had been falsified. This issue is factual and was originally reported as an allegation in 1980. TVA personnel at Bellefonte issued a Nonconformance Report relative to the issue and reported it as significant to the NRC under 10 CFR 50.55(e).

Complete details of the evaluation of this issue are discussed in Weld Project Evaluation Report WP-35-BLN. IR4

3.12 Weld Repairs

The concerns stated that TVA makes repairs which are not in accordance with the ASME Codes, such as overlays, patches and furmanite (viscous sealing compound) and a four inch stainless steel pipe in the Spent Fuel Cooling (NM) System was improperly repaired. The pipe was damaged while torch cutting a sleeve.

The issue relating to the use of overlays and patches, while factual, has no applicability to Bellefonte Nuclear Plant. These temporary repairs are service related, and are performed under approved programs at Browns Ferry and Sequoyah Nuclear Plants.

That part of the concern relating to TVA making repairs using viscous sealing compounds is addressed by Operations Subcategory Report 30800, and is not considered further by this evaluation.

The concern which stated that a four inch stainless steel pipe was improperly repaired evolved from oxy-fuel cutting of a carbon steel pipe sleeve through which the subject stainless steel pipe passed.

This concern was investigated by the site Quality Control and Welding Engineering Units. The evaluation included chemical and magnetic tests of the pipe to check for the presence of weld metal and for residue from a flame cutting operation.

No evidence could be found indicating that a repair was made to the pipe identified by the concerned individual.

Complete details of the evaluation of this issue are discussed in Weld Project Evaluation Report WP-36-BLN. IR4

3.13 Adequacy of Procedures

The concerns stated that prior to 1979 there was no specific inspection criteria for use by inspection personnel; that the visual examination procedure which covers ASME Section III is nonspecific; that NDE inspectors can only write a Notice of Inspection for inservice related defects and preservice defects can only be identified on a Maintenance Request; and an individual was told to start using a different heat treating process with no explanation.

The issue relating to the adequacy of the weld inspection procedures evolved from two employee concerns originated at Browns Ferry and Watts Bar. One of the concerned individuals believed that the problems were TVA wide.

Relative to Bellefonte Nuclear Plant, these concerns are not factual.

Quality Control Procedure BNP-QCP-7.5, "Visual Examination of Weld Joints," was issued in December, 1975. This procedure, with one exception, adequately provided all of the required inspection and acceptance criteria. Due to an omission in an upper tier document, the inspection procedure QCP-7.5 did not provide the required weld size for socket welded flanges. In May, 1980 a Nonconforming Condition Report was issued. The corrective and preventive actions mandated through NCR 1188 adequately resolved the procedural deficiency and any resultant hardware effects.

The issue involving the methods used by the ISI Inspectors to report inservice and preservice inspection findings originated at Browns Ferry and Sequoyah. These concerns are partially factual, in that the Notification of Indication is the specified form for reporting of indications found during nondestructive examination. This is in accordance with the TVA Nuclear Quality Assurance Manual.

One concerned individual stated that he was told to start using a different heat treating process with no explanation. This issue had been previously investigated and resolved through a site implemented employee concerns program. The process in question was in accordance with the specification.

Complete details of the evaluation of this issue are discussed in Weld Project Evaluation Report WP-43-BLN. IR4

4.0 COLLECTIVE SIGNIFICANCE

Through the subcategory overview of the evaluation report findings and the subsequent integration of information, no new significant items were identified. IR4

The evaluation report investigations and the subcategory overview indicated that the procedures and the practices used at BLN were consistent with good practices used throughout the nuclear industry. IR4

TVA's welding control practices were adequate and reflected common nuclear industry practices. Some problems were identified, as one would expect with the size of the operation and the time frame, and were addressed by the ongoing QA program and the Weld Project Evaluation Report Investigations. IR4

5.0 CAUSE

The cause of a perceived problem or the cause of a problem which initiated a CATD is limited to the cause identified in the evaluation report. IR4

6.0 CORRECTIVE ACTION

No corrective action is specified as a result of this subcategory report. Corrective actions for problems or perceived problems are limited to the CATDs issued as a portion of the Weld Project Evaluation Reports. IR4
Discussions ofenhancements to the existing TVA system, other than the enhancements specified by CATDs 50201-BLN-01 and 50203-BLN-01 will be deferred to the category report. CATD 50201-BLN-01 was issued to recommend that the implementing procedure be revised to reflect actual

practice and CATD 50203-BLN-01 was issued to recommend that the implementing procedure for welder performance qualification and the implementing procedure for weld filler material control be revised to show their respective relationships.

7.0 ATTACHMENTS

A. Subcategory Summary Table

B. Summary of Issues

8.0 REFERENCE

A. Welding Project Evaluation Reports IR4

CATEGORY: WE NON QA/QC WELDING
SUBCATEGORY: 50201 CONTROL OF WELDING FILLER MATERIAL

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ NB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
BLN-86-015-00101	WE	50201	N	BLN	1 N Y N N 2 NA SS NA NA		NSRS	DURING A CONTACT INTERVIEW, THE CI EXPRESSED HIS C ONCERN RELATIVE TO WELD ROD CONTROL. WELD RODS AR E LEFT IN ROD CANS IN A UNCONTROLLED AREA WHERE AN OTHER PERSON COULD PICK UP ANYONE'S RODS. WELD CE RTIFICATION CARDS ARE LEFT IN THE CANS OVERNIGHT. CURRENT PRACTICE VIOLATES PROCEDURES.
EX -85-039-00101 T50146	WE	50301	S	WBN	1 N N Y N 2 NA NA SR NA	WI-85-053-004	QTC	WBNP: THERE ARE NO PORTABLE OVENS FOR STORING WEL D ROD AFTER IT HAS BEEN ISSUED TO THE WELDER AND THE WELD ROD IS NOT ADEQUATELY ACCOUNTED FOR WHEN IT IS RETURNED, I.E. ROD STUBS AND UNUSED ROD. CO NST. DEPT. CONCERN. CI HAS NO FURTHER INFORMATION . NO FOLLOWUP REQUIRED. (SQN ISSUES ADDRESSED IN RPT WP-01-SQN R3)
02	WE	50101	S	WBN	1 Y N N N 2 SR NA NA NA			
03	WE	50201	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50401	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-234-00101 T50027	WE	50301	S	WBN	1 N N Y N 2 NA NA SR NA	EX-85-021-001	QTC	WELD RODS ARE NOT REQUIRED TO BE KEPT IN ROD OVENS AFTER ISSURANCE TO STEAMFITTER WELDERS. THE ROD CAN BE KEPT UNHEATED FOR 8 HOURS AT A TIME IN A LE ATHER POUCH. (SQN ISSUES ADDRESSED IN RPT WP-01-SQ N R3)
02	WE	50101	S	WBN	1 Y N N N 2 SR NA NA NA			
03	WE	50201	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50401	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-247-00101 T50022	WE	50312	S	WBN	1 N N Y N 2 NA NA SR NA	IN-85-284-001	QTC	7018 RODS (PURCHASED) ARE OF POOR QUALITY. THIS CO NTRIBUTES TO POROSITY AND PINHOLES. (SQN ISSUES AD DRESSED IN RPT WP-12-SQN R2)
02	WE	50101	S	WBN	1 Y N N N 2 SR NA NA NA			
03	WE	50412	S	WBN	1 N N N Y 2 NA NA NA SR			
04	WE	50201	S	WBN	1 N Y N N 2 NA SR NA NA			

CATEGORY: WE NON QA/QC WELDING
SUBCATEGORY: 50201 CONTROL OF WELDING FILLER MATERIAL

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ NB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
IN -85-352-00201 T50040	WE	50301	S	WBN	1 N N Y N 2 NA NA SR NA	EX-85-021-001	QTC	NO PORTABLE OVENS ARE USED ON WATTS BAR. WELD ROD CAN BE KEPT OUT OF OVEN FOR AN ENTIRE SHIFT AND RETURNED TO OVEN FOR LATER USE. (SQN ISSUES ADDRESSED IN RPT WP-01-SQN R3)
02	WE	50101	S	WBN	1 Y N N N 2 SR NA NA NA			
03	WE	50201	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50401	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-424-00101 T50041	WE	50301	S	WBN	1 N N Y N 2 NA NA SR NA	EX-85-021-001	QTC	NO PORTABLE OVENS USED/REQUIRED ON WATTS BAR. THE ROD OFTEN COLLECTS MOISTURE AND SHOULD NOT BE USED. (SQN ISSUES ADDRESSED IN WP-01-SQN R3)
02	WE	50101	S	WBN	1 Y N N N 2 SR NA NA NA			
03	WE	50201	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50401	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-424-00401 T50040	WE	50301	S	WBN	1 N N Y N 2 NA NA SR NA	EX-85-021-001	QTC	QA TRAINING CLASS, 6-5-85, INFORMED CRAFT THAT STEAMFITTERS COULD WITHDRAW AND CONTROL WELD ROD IF THEY HAD A WELDER SIGNED WELD SLIP AND THE WEDERS CARD. (SQN ISSUES ADDRESSED IN RPT WP-01-SQN R3)
02	WE	50101	S	WBN	1 Y N N N 2 SR NA NA NA			
03	WE	50201	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50401	S	WBN	1 N N N Y 2 NA NA NA SR			

CATEGORY: HE NON QA/QC WELDING
SUBCATEGORY: 50201 CONTROL OF WELDING FILLER MATERIAL

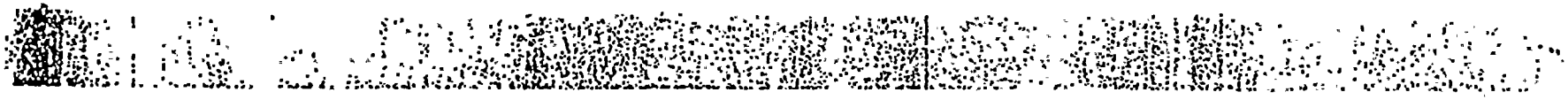
CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL / 2 SAF RELATED BF	BL	SQ	NB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
IN -85-424-00601 T50040	HE	50301	S	WBN	1 N	N	Y	N	EX-85-021-001	QTC	NO ACCOUNTABILITY OF WELD ROD DURING ISSUANCE OR RETURN OF UNUSED ROD AND STUBS. (SQN ISSUES ADDRESSED IN RPT WP-01-SQN R3)
					2 NA	NA	SR	NA			
02	HE	50101	S	WBN	1 Y	N	N	N			
					2 SR	NA	NA	NA			
03	HE	50201	S	WBN	1 N	Y	N	N			
					2 NA	SR	NA	NA			
04	HE	50401	S	WBN	1 N	N	N	Y			
					2 NA	NA	NA	SR			
IN -85-424-00701 T50102	HE	50301	S	WBN	1 N	N	Y	N	EX-85-021-001	QTC	LACK OF WELD ROD CONTROL: WELDORS GET ADDITIONAL ROD FROM OTHER WELDORS RATHER THAN GOING BACK TO THE ROD ROOM FOR MORE. SITE POLICY ALLOWS LEAVING ROD WITH OTHER WELDORS, OR LETTING SUB-JOURNEYMEN CHECK-OUT ROD AND RETURN ROD. (CAN ALSO LEAVE ROD IN TOOL BOXES). THE ROD ROOM DOES NOT COUNT ROD WHEN IT IS ISSUED, AND DOES NOT REQUIRE ACCOUNTING FOR ROD STUBS. OCCASSIONALLY, WELDORS ARE REPRIMANDED FOR NOT TURNING IN ROD WITHDRAWAL SLIPS, EVEN THOUGH (SQN ISSUES ADDRESSED IN RPT WP-01-SQN R3)
					2 NA	NA	SR	NA			
02	HE	50101	S	WBN	1 Y	N	N	N			
					2 SR	NA	NA	NA			
03	HE	50201	S	WBN	1 N	Y	N	N			
					2 NA	SR	NA	NA			
04	HE	50401	S	WBN	1 N	N	N	Y			
					2 NA	NA	NA	SR			
IN -85-426-00101 T50065	HE	50301	S	WBN	1 N	N	Y	N	EX-85-021-001	QTC	PORTABLE OVENS ARE NOT REQUIRED. WELD ROD IS KEPT OUT OF OVEN FOR AN ENTIRE SHIFT. NO FOLLOW-UP. (SQN ISSUES ADDRESSED IN RPT WP-01-SQN R3)
					2 NA	NA	SR	NA			
02	HE	50101	S	WBN	1 Y	N	N	N			
					2 SR	NA	NA	NA			
03	HE	50201	S	WBN	1 N	Y	N	N			
					2 NA	SR	NA	NA			
04	HE	50401	S	WBN	1 N	N	N	Y			
					2 NA	NA	NA	SR			

CATEGORY: WE NON QA/QC WELDING
SUBCATEGORY: 50201 CONTROL OF WELDING FILLER MATERIAL

CONCERN NUMBER	CAT	SUB CAT	SHR D	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
IN -85-441-00301 T50040	WE	50301	S	WBN	1 N N Y N 2 NA NA SR NA	EX-85-021-001	QTC	NO PORTABLE OVENS ON WATTS BAR. THE ROD SOMETIMES COLLECTS MOISTURE BY THE END OF THE SHIFT AND CAN NOT BE USED. (SQN ISSUES ADDRESSED IN RPT WP-01-SQN R3)
02	WE	50101	S	WBN	1 Y N N N 2 SR NA NA NA			
03	WE	50201	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50401	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-453-00901 T50030	WE	50301	S	WBN	1 N N Y N 2 NA NA SR NA	EX-85-021-001	QTC	WELDERS FREQUENTLY GIVE WELD ROD TO OTHER WELDERS. (SQN ISSUES ADDRESSED IN RPT WP-01-SQN R3)
02	WE	50101	S	WBN	1 Y N N N 2 SR NA NA NA			
03	WE	50201	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50401	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-454-00401 T50030	WE	50301	S	WBN	1 N N Y N 2 NA NA SR NA	EX-85-021-001	QTC	WELDERS FREQUENTLY GET ROD FROM EACH OTHER INSTEAD OF WITHDRAWING FOR ROD ROOM. (SQN ISSUES ADDRESSED IN RPT WP-01-SQN R3)
02	WE	50101	S	WBN	1 Y N N N 2 SR NA NA NA			
03	WE	50201	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50401	S	WBN	1 N N N Y 2 NA NA NA SR			

CATEGORY: WE NON QA/QC WELDING
SUBCATEGORY: 50201 CONTROL OF WELDING FILLER MATERIAL

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
IN -85-501-00101 T50031	WE	50319	S	WBN	1 N N Y N 2 NA NA SR NA	IN-85-501-001	QTC	UNUSED BUNDLES OF WELD ROD FREQUENTLY FOUND IN TRA SH CANS I.E. TURBINE BLDG., 708', 729', AND 755' E LEVATIONS, UNIT #2 (15-20 RODS FOUND 6-7-85) (SQN ISSUES ADDRESSED IN RPT WP-19-SQN R1)
02	WE	50101	S	WBN	1 Y N N N 2 SR NA NA NA			
03	WE	50201	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50401	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-672-00301 T50207	MP	70202	S	WBN	1 N N N N 2 NA NA NA NA		QTC	AT SHIFT END, WELD ROD SLIPS ARE TURNED IN. THE S LIPS ARE CHECKED THEN THROWN AWAY. IF THE ISSUE R OOM DETERMINES AT A LATER DATE THAT A WELDER DID N OT CONFORM TO "TURN IN" PROCEDURES, IT IS HIS WORD AGAINST THEIRS AND HE GETS THE WARNING LETTER. T HESE LETTERS HAVE BEEN ISSUED WITHOUT PROOF OF WRO NGDOING. CONSTRUCTION DEPT. CONCERN. (SQN ISSUES ADDRESSED IN RPT WP-01-SQN R3)
02	WE	50301	S	WBN	1 N N Y N 2 NA NA SR NA			
03	WE	50101	S	WBN	1 Y N N N 2 SR NA NA NA			
04	WE	50201	S	WBN	1 N Y N N 2 NA SR NA NA			
05	WE	50401	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -86-047-00101 T50110	WE	50314	S	WBN	1 N N Y N 2 NA NA SR NA		QTC	A SYSTEM IS NEEDED THAT VERIFYS THAT THE WELDER DI D RETURN THE UNUSED WELD ROD AND STUBS AND WILL PR OVIDE THE WELDER A RECEIPT SO THAT THE WELDER CAN PROVE HE DID RETURN THE MATERIAL IN CASE AN ERROR WAS MADE. CI HAS NO ADDITIONAL INFORMATION. CONS TRUCTION DEPARTMENT. (SQN ISSUES ADDRESSED IN RPT WP-14-SQN R1)
02	WE	50101	S	WBN	1 Y N N N 2 SR NA NA NA			
03	WE	50201	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50401	S	WBN	1 N N N Y 2 NA NA NA SR			



CATEGORY: HE NON QA/QC WELDING
SUBCATEGORY: 50201 CONTROL OF WELDING FILLER MATERIAL

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
WI -85-053-00401 T50135	HE	50301	S	WBN	1 N N Y N 2 NA NA SS NA	WI-85-053-004	QTC	WELD ROD CONTROL DOES NOT SATISFY CODE REQUIREMENTS. TVA ATTITUDE IS "ALL MATERIAL IS CODE MATERIAL". CONSTRUCTION DEPT CONCERN. CI HAS NO FURTHER INFORMATION. (SQN ISSUES ADDRESSED IN RPT WP-01-SQN R3)
02	HE	50101	S	WBN	1 Y N N N 2 SS NA NA NA			
03	HE	50201	S	WBN	1 N Y N N 2 NA SS NA NA			
04	HE	50401	S	WBN	1 N N N Y 2 NA NA NA SS			
XX -85-068-00301 T50140	HE	50201	N	BLN	1 N Y N N 2 NA SR NA NA		QTC	BELLEFONTE ASME DEVIATIONS/VIOLATIONS (UNCONTROLLED WELD ROD) ARE REPORTED ON NON-QI REPORTS, THEREFORE PROBLEMS DO NOT GET TO THE AUTHORIZED NUCLEAR INSPECTOR (ANI). DETAILS KNOWN TO QTC, WITHHELD DUE TO CONFIDENTIALITY. CONSTRUCTION DEPT. CONCERN. C/I HAS NO FURTHER INFORMATION.
XX -85-068-00601 T50138	HE	50301	S	BLN	1 N N Y N 2 NA NA SS NA		QTC	BELLEFONTE - WELD ROD CONTROL DOES NOT SATISFY CODE REQUIREMENTS. TVA ATTITUDE IS "ALL MATERIAL IS CODE MATERIAL". CONSTRUCTION DEPT. CONCERN. CI HAS NO FURTHER INFORMATION. NO FOLLOW UP REQUIRED. (SQN ISSUES ADDRESSED IN RPT WP-01-SQN R3)
02	HE	50201	S	BLN	1 N Y N N 2 NA SS NA NA			

19 CONCERNS FOR CATEGORY HE SUBCATEGORY 50201

CATEGORY: WE NON QA/QC WELDING
SUBCATEGORY: 50202 INSPECTION OF WELDS THROUGH CARBO-ZINC PRIMER

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
IN -85-458-00101 T50105	WE	50102	S	WBN	1 Y N N N 2 SS NA NA NA	IN-85-458-001	QTC	TVA USED IMPROPER INSPECTION CRITERIA FOR AWS WELDS - MEMO FROM KNOXVILLE (POSSIBLY ENDES, 1980 OR 1981) ALLOWED INSPECTION THROUGH PAINT. INDIVIDUAL FROM KNOXVILLE (KNOWN) INVESTIGATED THIS, BUT RESULTS ARE UNKNOWN. CI HAS NO MORE INFORMATION. (SQN ISSUES ADDRESSED IN RPT WP-02-SQN R2)
02	WE	50202	S	WBN	1 N Y N N 2 NA SS NA NA			
03	WE	50302	S	WBN	1 N N Y N 2 NA NA SS NA			
04	WE	50402	S	WBN	1 N N N Y 2 NA NA NA SS			
IN -86-019-00101 T50219	WE	50102	S	WBN	1 Y N N N 2 SR NA NA NA		QTC	CI IS CONCERNED THAT WELDS WERE ACCEPTED THROUGH CARBO-ZINC. INSPECTORS WERE DIRECTED VIA MEMO TO ACCEPT WELDS THROUGH PAINT. CI COULD NOT PROVIDE ANY ADDITIONAL INFORMATION. UNIT 1. CONSTRUCTION DEPT. CONCERN. (SQN ISSUES ADDRESSED IN RPT WP-02-SQN R2)
02	WE	50202	S	WBN	1 N Y N N 2 NA SR NA NA			
03	WE	50302	S	WBN	1 N N Y N 2 NA NA SR NA			
04	WE	50402	S	WBN	1 N N N Y 2 NA NA NA SR			
NS -85-001-00101 T50022	WE	50102	S	WBN	1 Y N N N 2 SR NA NA NA	NS-85-001-001	QTC	WELDS (AWS) INSPECTED SUBSEQUENT TO PROTECTIVE COATING (CARBOZINC PRIMER) APPLICATION; FINAL VISUAL WELD EXAMINATION OF STRUCTURAL WELDS IN CATEGORY I STRUCTURES, INCLUDING PIPE HANGERS, CABLE TRAY SUPPORTS AND DUCT SUPPORTS; UNIT 1 & 2 (SQN ISSUES ADDRESSED IN RPT WP-02-SQN R2)
02	WE	50202	S	WBN	1 N Y N N 2 NA SR NA NA			
03	WE	50302	S	WBN	1 N N Y N 2 NA NA SR NA			
04	WE	50402	S	WBN	1 N N N Y 2 NA NA NA SR			

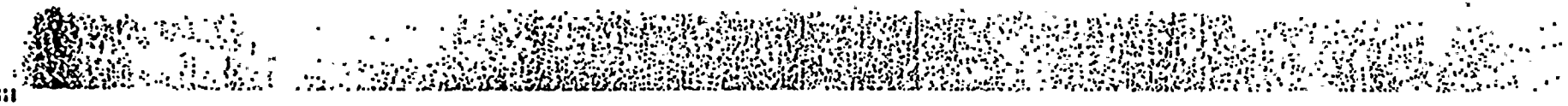
CATEGORY: WE NON QA/QC WELDING SUBCATEGORY: 50202 INSPECTION OF WELDS THROUGH CARBO-ZINC PRIMER

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ NB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
PH -85-040-00101 T50203	WE	50102	S	WBN	1 Y N N N 2 SR NA NA NA	IN-85-458-001	QTC	QA HANGERS WERE FREQUENTLY PAINTED BEFORE THE WELDS WERE INSPECTED. AUX. BUILDING, REACTOR BUILDING #1, ELEV. 742'-0", & 745'-0". 1983. CONSTRUCTION DEPT. CONCERN. CI HAS NO FURTHER DETAILS. (SQN ISSUES ADDRESSED IN RPT WP-02-SQN R2)
02	WE	50202	S	WBN	1 N Y N N 2 NA SR NA NA			
03	WE	50302	S	WBN	1 N N Y N 2 NA NA SR NA			
04	WE	50402	S	WBN	1 N N N Y 2 NA NA NA SR			
WI -85-013-00301 T50114	WE	50102	S	WBN	1 Y N N N 2 SS NA NA NA	WI-85-013-003	QTC	G29C (CONSTRUCTION SPECIFICATIONS)ALLOWED WELDS TO BE INSPECTED AFTER PAINTING FROM 1981 THROUGH THE END OF THE WELDING SAMPLING PROGRAM. THIS IS IN VIOLATION OF AWS D1.1. CI HAS NO MORE INFORMATION. (NOTE: THIS ITEM IS CURRENTLY UNDER INVESTIGATION BY ERT. THE REVISION WAS MADE TO SEPARATE THE ORIGINAL 003 CONCERN INTO TWO DISTINCT CONCERNS.) (SQN ISSUES ADDRESSED IN RPT WP-02-SQN R2)
02	WE	50202	S	WBN	1 N Y N N 2 NA SS NA NA			
03	WE	50302	S	WBN	1 N N Y N 2 NA NA SS NA			
04	WE	50402	S	WBN	1 N N N Y 2 NA NA NA SS			
WI -85-030-00701 T50185	WE	50116	S	WBN	1 Y N N N 2 SR NA NA NA		QTC	THE WBN FSAR COMMITS TVA TO THE REQUIREMENTS OF AWS D.1.1 FOR STRUCTURAL WELDING. CONTRARY TO THESE REQUIREMENTS, THE G-29C PROCESS SPECIFICATION WAS MODIFIED TO REFLECT LESS STRINGENT INSPECTION REQUIREMENTS (E.G. VISUAL INSPECTION OF WELDS THROUGH PAINT (CARBO ZINC PRIMER) AND NO DOCUMENTED INSPECTION BY CERTIFIED VISUAL INSPECTORS (FIT-UP, IN-PROCESS) PRIOR TO FINAL INSPECTION.) CI HAS NO ADDITIONAL INFORMATION. NUC. POWER DEPT. CONCERN. (SQN ISSUES ADDRESSED IN RPT WP-16-SQN R2)
02	WE	50102	S	WBN	1 Y N N N 2 SR NA NA NA			
03	WE	50216	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50316	S	WBN	1 N N Y N 2 NA NA SR NA			
05	WE	50416	S	WBN	1 N N N Y 2 NA NA NA SR			
06	WE	50202	S	WBN	1 N Y N N 2 NA SR NA NA			
08	WE	50402	S	WBN	1 N N N Y 2 NA NA NA SR			

CATEGORY: WE NON QA/QC WELDING SUBCATEGORY: 50202 INSPECTION OF WELDS THROUGH CARBO-ZINC PRIMER

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
WI -85-030-00801 T50185	WE	50319	S	WBN	1 N N Y N 2 NA NA SR NA		QTC	THERE MAY HAVE BEEN THOUSANDS OF WELDS INSPECTED THROUGH CARBO-ZINC PRIMER. HOWEVER, TVA REPORTS INDICATE THAT ONLY 100-150 WELDS WERE INSPECTED IN THIS MANNER EVEN THOUGH THERE IS NO DOCUMENTATION IDENTIFYING WHICH WELDS WERE INSPECTED THROUGH CARBO-ZINC PRIMER. NUC. POWER CONCERN. CI HAS NO ADDITIONAL INFORMATION. (SQN ISSUES ADDRESSED IN RPT WP-19-SQN R1)
02	WE	50102	S	WBN	1 Y N N N 2 SR NA NA NA			
03	WE	50202	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50402	S	WBN	1 N N N Y 2 NA NA NA SR			
WI -85-041-00601 T50193	WE	50102	S	WBN	1 Y N N. N 2 SS NA NA NA	EX-85-052-005	QTC	AWS WELD INSPECTOR(S) (UNKNOWN) DID NOT UNDERSTAND THE "5 MIL" PROVISION FOR INSPECTION OF COATED (CARBO-ZINC PRIMER) WELDS AS CONTAINED IN REVISIONS OF SPECIFICATION G-29C, PROCEDURE QCP-4.13, AND MEMORANDUM DATED NOVEMBER 1981. INSPECTOR(S) REFERRED TO CRITERIA AS "MILLIAMPS" AND THEREFORE COULD NOT HAVE IMPLEMENTED/INSPECTED FOR CONFORMANCE. CI HAS NO ADDITIONAL INFORMATION. NUC POWER DEPT. CONCERN. (SQN ISSUES ADDRESSED IN RPT WP-02-SQN R2)
02	WE	50202	S	WBN	1 N Y N N. 2 NA SS NA NA			
03	WE	50302	S	WBN	1 N N Y N 2 NA NA SS NA			
04	WE	50402	S	WBN	1 N N N Y 2 NA NA NA SS			
WI -85-041-00801 T50193	WE	50102	S	WBN	1 Y N N N 2 SS NA NA NA	IN-85-458-001	QTC	PROCESS SPECIFICATION #3.C.5.4 OF G-29C PERMITTED INSPECTION OF AWS WELDS THROUGH COATING (CARBO-ZINC PRIMER) FOR ELEVEN MONTHS AFTER ENGINEERING EVALUATION/TEST SHOWED THAT WELD QUALITY (POROSITY, CRACKS, ETC) COULD NOT BE INSPECTED THROUGH PAINT. NUC POWER DEPT. CONCERN. CI HAS NO ADDITIONAL INFORMATION. (SQN ISSUES ADDRESSED IN RPT WP-02-SQN R2)
02	WE	50202	S	WBN	1 N Y N N 2 NA SS NA NA			
03	WE	50302	S	WBN	1 N N Y N 2 NA NA SS NA			
04	WE	50402	S	WBN	1 N N N Y 2 NA NA NA SS			

9 CONCERNS FOR CATEGORY WE SUBCATEGORY 50202



CATEGORY: WE NON QA/QC WELDING SUBCATEGORY: 50203 WELDER QUALIFICATION CONTINUITY AT BLNP

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
EX -85-021-00201 T50069	WE	50103	S	WBN	1 Y N N N 2 SR NA NA NA	IN-85-352-001	QTC	THERE IS NO METHOD/OBJECTIVE EVIDENCE TO VERIFY TH AT A WELDER HAS USED A SPECIFIC PROCESS WHEN THEIR WELD CARDS ARE STAMPED/UP-DATED BY QC. NO FOLLOW -UP REQUIRED - NO ADDITIONAL INFORMATION AVAILABLE . (SQN ISSUES ADDRESSED IN RPT WP-03-SQN R3)
02	WE	50203	S	WBN	1 N Y N N 2 NA SR NA NA			
03	WE	50303	S	WBN	1 N N Y N 2 NA NA SR NA			
04	WE	50403	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-113-00301 T50020	WE	50203	S	WBN	1 N Y N N 2 NA SR NA NA	IN-85-113-003	QTC	WELDERS ONLY HAVE THEIR CERTIFICATION CARDS STAMPE D EVERY 90 DAYS. WELDERS ARE NOT REQUIRED TO BURN ROD AND HAVE IT INSPECTED IN ORDER TO MAINTAIN TH EIR CERTIFICATION. (SQN ISSUES ADDRESSED IN RPT WP -03-SQN R3)
02	WE	50303	S	WBN	1 N N Y N 2 NA NA SR NA			
03	WE	50403	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-335-00201	IH	60400	S	WBN	1 N N N Y 2 NA NA NA NO	IN-85-335-002	QTC	WELDERS ON "RESTRICTIONS" (NOT ALLOWED TO WELD) AR E TOLD TO KEEP THEIR CERTIFICATIONS UPDATED EVEN W ITHOUT USING THE PROCESS OR TIME IN THE TEST SHOP. (NAMES ARE KNOWN) (SQN ISSUES ADDRESSED IN RPT W P-19-SQN R1)
02	WE	50319	S	WBN	1 N N Y N 2 NA NA SR NA			
03	WE	50203	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50403	S	WBN	1 N N N Y 2 NA NA NA SR			

REFERENCE - ECPS120J-ECPS121C
FREQUENCY - REQUEST
ONP - ISSS - RHM

TENNESSEE VALLEY AUTHORITY
OFFICE OF NUCLEAR POWER
EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY

RUN TIME - 11:45:02
RUN DATE - 12/17/87

CATEGORY: WE NON QA/QC WELDING
SUBCATEGORY: 50203 WELDER QUALIFICATION CONTINUITY AT BLNP

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
IN -85-426-00201 T50065	WE	50103	S	WBN	1 Y N N N 2 SR NA NA NA	IN-85-352-001	QTC	UPDATING OF WELDER CERTIFICATIONS IS INADEQUATE IN THAT A WELDER IS ONLY REQUIRED TO PRESENT THEIR CARD FOR UPDATING AND SOMETIMES IS ASKED TO RUN A BEAD- NEVER A COMPLETE WELD. NO FOLLOW-UP. (SQN ISSUES ADDRESSED IN RPT WP-03-SQN R3)
02	WE	50203	S	WBN	1 N Y N N 2 NA SR NA NA			
03	WE	50303	S	WBN	1 N N Y N 2 NA NA SR NA			
04	WE	50403	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-480-00401 T50031	WE	50103	S	WBN	1 Y N N N 2 SR NA NA NA	IN-85-770-002	QTC	WELDER CERTIFICATION UPDATE IS INADEQUATE. PERSONNEL MAY WORK IN A POSITION THAT DOES NOT REQUIRE ANY WELDING FOR 5-6 YEARS BUT CERTIFICATIONS ARE CONTINUALLY UPDATED. WHEN THESE PERSONS RETURN TO WELDING NO TESTS ARE CONDUCTED. THEY JUST RUN STRINGERS TO UPDATE CERTIFICATIONS. (SQN ISSUES ADDRESSED IN RPT WP-03-SQN R3)
02	WE	50203	S	WBN	1 N Y N N 2 NA SR NA NA			
03	WE	50303	S	WBN	1 N N Y N 2 NA NA SR NA			
04	WE	50403	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-725-X1501 T50167	WE	50319	S	WBN	1 N N Y N 2 NA NA SR NA	IN-85-725-X15	QTC	THE CONTROL OF WELDER RECERTIFICATION TEST PLATES WAS INADEQUATE: TEST PLATES BEGUN BY ONE WELDER COULD HAVE BEEN COMPLETED BY ANOTHER WELDER. DETAIL KNOWN TO QTC-WITHELD TO MAINTAIN CONFIDENTIALITY. (SQN ISSUES ADDRESSED IN RPT WP-19-SQN R1)
02	WE	50103	S	WBN	1 Y N N N 2 SR NA NA NA			
03	WE	50203	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50403	S	WBN	1 N N N Y 2 NA NA NA SR			

REFERENCE - ECPS120J-ECPS121C
FREQUENCY - REQUEST
ONP - ISSS - RHM

TENNESSEE VALLEY AUTHORITY
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EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY

RUN TIME - 11:45:02
RUN DATE - 12/17/87

CATEGORY: HE NON QA/QC WELDING
SUBCATEGORY: 50203 WELDER QUALIFICATION CONTINUITY AT BLNP

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
IN -85-940-X0401 T50258	HE	50203	S	WBN	1 N Y N N 2 NA SR NA NA		QTC	UNTIL RECENTLY, A WELDER COULD HAVE WELDING CERTIFICATIONS UPDATED BY MERELY HAVING THE CERTIFICATION CARD INITIALED BY AN INSPECTOR. THIS PRACTICE MAY NOT HAVE ASSURED THAT THE UPDATE WAS BASED ON OBJECTIVE EVIDENCE OF UTILIZATION OF THE REQUIRED PROCESS WITHIN THE SPECIFIED TIME PERIOD. CONSTRUCTION DEPARTMENT CONCERN. CI HAS NO FURTHER INFORMATION. (SQN ISSUES ADDRESSED IN RPT WP-03-SQN R3)
02	HE	50303	S	WBN	1 N N Y N 2 NA NA SR NA			
03	HE	50403	S	WBN	1 N N N Y 2 NA NA NA SR			
JLH-85-002 01	HE	50124	S	SQN	1 Y N N N 2 SS NA NA NA		OECP	THIS CONCERN WAS NOT DOCUMENTED PER SQA166 BUT HAS BEEN INCLUDED IN THE EMPLOYEE CONCERN LOG. WELDERS FROM MUSCLE SHOALS MAY NOT HAVE RECEIVED THE APPROPRIATE NUMBER OF BEND TESTS WHEN TAKING WELD QUALIFICATION TESTS. (SQN ISSUES ADDRESSED IN RPT WP-24-SQN R0)
02	HE	50203	S	SQN	1 N Y N N 2 NA SS NA NA			
03	HE	50324	S	SQN	1 N N Y N 2 NA NA SS NA			
04	HE	50424	S	SQN	1 N N N Y 2 NA NA NA SS			

8 CONCERNS FOR CATEGORY HE SUBCATEGORY 50203

REFERENCE - ECPS120J-ECPS121C
FREQUENCY - REQUEST
ONP - ISSS - RWM

TENNESSEE VALLEY AUTHORITY
OFFICE OF NUCLEAR POWER
EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY

RUN TIME - 11:45:02
RUN DATE - 12/17/87

CATEGORY: WE NON QA/QC WELDING
SUBCATEGORY: 50204 INSPECTION TOOLS AT BLNP

CONCERN NUMBER	CAT	SUB CAT	SHR D	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
IN -85-007-00101 T50001	WE	50104	S	WBN	1 Y N N N 2 SR NA NA NA		QTC	INSPECTION TOOLS FOR WELDING INSPECTORS WERE NEVER ISSUED. I.E. FILLET WELD SIZE GAGES, FIT-UP GUAGES, ETC. (SQN ISSUES ADDRESSED IN RPT WP-04-SQN R2)
02	WE	50204	S	WBN	1 N Y N N 2 NA SR NA NA			
03	WE	50304	S	WBN	1 N N Y N 2 NA NA SR NA			
04	WE	50404	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-134-00201 T50050	WE	50104	S	WBN	1 Y N N N 2 SS NA NA NA		QTC	UNTIL RECENTLY (PAST 2 YEARS), TVA DID NOT PROVIDE QC INSPECTORS WITH WELDING INSPECTION TOOLS. SOME INSPECTORS PROVIDED THEIR OWN TOOLS BUT OTHERS DID NOT. CI HAS PASSED AWAY, NO FURTHER DETAILS AVAILABLE. (SQN ISSUES ADDRESSED IN RPT WP-04-SQN R2)
02	WE	50204	S	WBN	1 N Y N N 2 NA SS NA NA			
03	WE	50304	S	WBN	1 N N Y N 2 NA NA SS NA			
04	WE	50404	S	WBN	1 N N N Y 2 NA NA NA SS			
IN -85-406-00301 T50013	WE	50104	S	WBN	1 Y N N N 2 SS NA NA NA		QTC	PRIOR TO 1979, NO WELD INSPECTION TOOLS WERE ISSUED TO INSPECTORS. (SQN ISSUES ADDRESSED IN RPT WP-04-SQN R2)
02	WE	50204	S	WBN	1 N Y N N 2 NA SS NA NA			
03	WE	50304	S	WBN	1 N N Y N 2 NA NA SS NA			
04	WE	50404	S	WBN	1 N N N Y 2 NA NA NA SS			

3 CONCERNS FOR CATEGORY WE SUBCATEGORY 50204

CATEGORY: WE NON QA/QC WELDING
SUBCATEGORY: 50206 INSPECTOR QUALIFICATION AT BLNP

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
IN -85-476-00402 T50037	WE	50206	S	WBN	1 N Y N N 2 NA SR NA NA	EX-85-052-005	QTC	APPROX. 1980, TVA IMPLEMENTED A WELDING INSPECTORS TRAINING PROGRAM AND PEOPLE WITH A GROCERY CLERK BACKGROUND WERE INSPECTING WELDS WITHIN TWO WEEKS. (SQN ISSUES ADDRESSED IN RPT WP-06-SQN R0)
03	WE	50106	S	WBN	1 Y N N N 2 SR NA NA NA			
04	WE	50306	S	WBN	1 N N Y N 2 NA NA SR NA			
05	WE	50406	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-981-00102 T50111	WE	50206	S	WBN	1 N Y N N 2 NA SR NA NA	EX-85-052-005	QTC	WELDING INSPECTORS WERE INADEQUATELY TRAINED PIROR TO 1981, I.E., PERSONNEL WITH NO EXPERIENCE INVOLVING WELDING WERE SENT TO A TWO WEEK TRAINING CLASS AND THEN FUNCTIONED AS A WELDING INSPECTOR. CI HAS NO MORE INFORMATION. NO FOLLOW UP REQUIRED. (SQN ISSUES ADDRESSED IN RPT WP-06-SQN R0)
03	WE	50106	S	WBN	1 Y N N N 2 SR NA NA NA			
04	WE	50306	S	WBN	1 N N Y N 2 NA NA SR NA			
05	WE	50406	S	WBN	1 N N N Y 2 NA NA NA SR			
WI -85-041-00202 T50103	WE	50206	S	WBN	1 N Y N N 2 NA SS NA NA	EX-85-052-005	QTC	QUALIFICATION/TRAINING OF INSPECTORS FOR STRUCTURAL (AWS) WELD VISUAL EXAMINATION IS QUESTIONABLE; LEVEL II CERTIFICATION IS GRANTED WITH ONLY TWO MONTHS OF OJT, WHICH IS NOT DOCUMENTED; THE TOPICAL REPORT HAS "BASTARDIZED" ANSI N45.2.6, REGARDING QUALIFICATION OF INSPECTION/EXAMINATION PERSONNEL. CI HAS NO FURTHER INFORMATION. NO FOLLOW UP REQUIRED. (SQN ISSUES ADDRESSED IN RPT WP-06-SQN R0)
03	WE	50106	S	WBN	1 Y N N N 2 SS NA NA NA			
04	WE	50306	S	WBN	1 N N Y N 2 NA NA SS NA			
05	WE	50406	S	WBN	1 N N N Y 2 NA NA NA SS			

TENNESSEE VALLEY AUTHORITY
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EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY

CATEGORY: WE NON QA/QC WELDING SUBCATEGORY: 50206 INSPECTOR QUALIFICATION AT BLNP

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
WI -85-081-00702 T50237	WE	50206	S	WBN	1 N Y N N 2 NA SR NA NA	EX-85-052-005	QTC	CI EXPRESSED THAT WELDING INSPECTORS ARE NOT QUALIFIED FOR THE JOB. CI STATED THAT AN INSPECTOR NEEDED TO BE A WELDER SO THE INSPECTOR WOULD KNOW WHAT TO LOOK FOR IN A GOOD WELD. CI DECLINED TO PROVIDE ANY ADDITIONAL INFORMATION. CONSTRUCTION DEPARTMENT CONCERN. NO FOLLOW UP REQUIRED. (SQN ISSUES ADDRESSED IN RPT WP-06-SQN R0)
03	WE	50106	S	WBN	1 Y N N N 2 SR NA NA NA			
04	WE	50306	S	WBN	1 N N Y N 2 NA NA SR NA			
05	WE	50406	S	WBN	1 N N N Y 2 NA NA NA SR			
XX -85-107-00101 T50185	WE	50206	N	BLN	1 N Y N N 2 NA SR NA NA		QTC	BELLEFONTE - WELDING INSPECTORS AT BELLEFONTE DO NOT APPEAR TO BE KNOWLEDGEABLE ABOUT WELDING. CONSTRUCTION DEPT. CONCERN., CI HAS NO ADDITIONAL INFORMATION.

5 CONCERNS FOR CATEGORY WE SUBCATEGORY 50206

CATEGORY: WE NON QA/QC WELDING
SUBCATEGORY: 50207 WELDER TRAINING/EXPERIENCE AT BLNP

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
EX -85-008-00101 T50051	WE	50107	S	WBN	1 Y N N N 2 SR NA NA NA	EX-85-010-002	QTC	SUBJOURNEYMEN USED TO DO WORK THAT THEY'RE NOT QUALIFIED TO DO: THEY NEEDN'T HAVE ANY SPECIFIC TRAINING, BUT DO WORK (EG PIPE FIT-UPS AND WELDS ON 1/4" LINES) NORMALLY DONE BY A JOURNEYMAN WITH 5 YEARS MINIMUM EXPERIENCE. SUBJOURNEYMEN REQUIRE CLOSER TECHNICAL SUPERVISION THAN TVA PROVIDES. WHEN CRAFTS COMPLAIN, THEY ARE "CHEWED OUT" BEYOND ALL REASONABLE LIMITS. NO MORE DETAILS KNOWN. (SQN ISSUES ADDRESSED IN RPT WP-07-SQN R1)
02	WE	50207	S	WBN	1 N Y N N 2 NA SR NA NA			
03	WE	50307	S	WBN	1 N N Y N 2 NA NA SR NA			
04	WE	50407	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-706-00101 T50064	WE	50107	S	WBN	1 Y N N N 2 SR NA NA NA		QTC	WELDERS WHO WENT THROUGH TVA'S WELDER TRAINING PROGRAM HAVE INSUFFICIENT TRAINING AND EXPERIENCE TO HANDLE ALL VARIABLES INVOLVED TO PERFORM ADEQUATE WELDS FOR A NUCLEAR INSTALLATION. THIS INADEQUACY HAS CREATED A LOT OF REWORK. CI HAS NO MORE DETAILS. (SQN ISSUES ADDRESSED IN RPT WP-07-SQN R1)
02	WE	50207	S	WBN	1 N Y N N 2 NA SR NA NA			
03	WE	50307	S	WBN	1 N N Y N 2 NA NA SR NA			
04	WE	50407	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -86-158-00601 T50180	WE	50314	S	WBN	1 N N Y N 2 NA NA SR NA		QTC	UNTIL 1973 TVA DID NOT LET THEIR APPRENTICESHIP PEOPLE WELD. DURING THAT YEAR, EVEN WITH TWO OR THREE MONTHS EXPERIENCE, AN APPRENTICE COULD TAKE THE TEST, PASS, AND BE ABLE TO WELD IN THE FIELD. THE SYSTEM HAS WORKED THAT WAY EVEN SINCE 1973. CONST. DEPT. CONCERN. C/I HAS NO FURTHER INFORMATION. (SQN ISSUES ADDRESSED IN RPT WP-14-SQN R1)
02	WE	50107	S	WBN	1 Y N N N 2 SR NA NA NA			
03	WE	50207	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50407	S	WBN	1 N N N Y 2 NA NA NA SR			

CATEGORY: HE NON QA/QC WELDING SUBCATEGORY: 50207 WELDER TRAINING/EXPERIENCE AT BLNP

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
XX -85-045-00101 T50075	MP	71701	S	BLN	1 N N N N 2 NA NA NA NA		QTC	BELLEFONTE-TVA POLICY ALLOWS FOR PERSONEL TO BE SE NT TO THE TEST SHOP AND IN A SHORT TIME BE CERTIFI ED AS AN ELECTRICAL WELDER. THESE WELDERS DO PASS A STRICT TEST BUT THE TEST DOES NOT TEST THEIR AB ILITY WHEN DEALING WITH ALL THE VARIABLES AN EXPER IENCED WELDER CAN HANDLE. INSUFFICIENT WELDER TRA INING. (SQN ISSUES ADDRESSED IN RPT WP-07-SQN R1)
02	WE	50207	S	BLN	1 N Y N N 2 NA SR NA NA			
03	WE	50307	S	BLN	1 N N Y N 2 NA NA SR NA			

4 CONCERNS FOR CATEGORY WE SUBCATEGORY 50207

TENNESSEE VALLEY AUTHORITY
OFFICE OF NUCLEAR POWER
EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY

CATEGORY: WE NON QA/QC WELDING SUBCATEGORY: 50210 IMPLEMENTATION OF QAE-2 AT BLNP

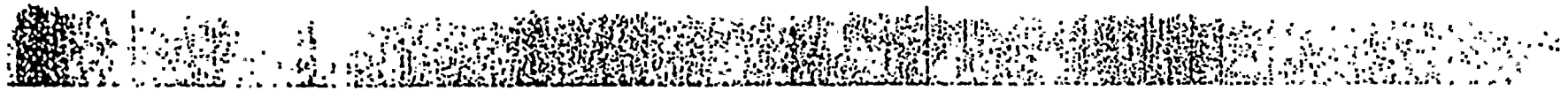
CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ NB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
XX -85-110-00101 T50187	WE	50210	N	BLN	1 N Y N N 2 NA SR NA NA		QTC	BELLEFONTE: WELDING AND NDE PROGRAM CORRECTIVE ACTION, AS IDENTIFIED IN OEDC QUALITY ASSURANCE EVALUATION NO. QAE-2, DATED SEPTEMBER 1980, MAY NOT HAVE BEEN IMPLEMENTED FOR BELLEFONTE; THE SAME/UNCORRECTED PROBLEMS WERE FOUND TO EXIST YEARS LATER, AND MAY STILL EXIST TODAY. CI HAS NO ADDITIONAL INFORMATION. NUC PWER DEPT CONCERN.

1 CONCERNS FOR CATEGORY WE SUBCATEGORY 50210

CATEGORY: WE NON QA/QC WELDING SUBCATEGORY: 50213 WELDING EQUIPMENT AND BOTTLED GASES AT BLNP

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ NB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
IN -85-247-00201 T50022	WE	50113	S	WBN	1 Y N N N 2 SR NA NA NA		QTC	WELDING MACHINES (MCKAY & HOBART) USED IN FIELD BY STEAM FITTERS HAVE 2 SETTINGS 50 & 100 AMPS BOTH OF WHICH ARE UNSUITABLE FOR WELDING WITH 3/32" ROD . THIS CONTRIBUTES TO POROSITY AND PINHOLES. (SQN ISSUES ADDRESSED IN RPT WP-13-SQN R0)
02	WE	50213	S	WBN	1 N Y N N 2 NA SR NA NA			
03	WE	50313	S	WBN	1 N N Y N 2 NA NA SR NA			
04	WE	50413	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-303-00101 T50021	WE	50113	S	WBN	1 Y N N N 2 SR NA NA NA		QTC	ALL THE WELDING MACHINES SHOULD HAVE REMOTE SWITCH ES SO THAT THE TUNGSTEN TIP DOESN'T HAVE TO TOUCH THE BASE METAL TO START THE WELD. PRESENTLY THE N ON-HOBART WELDERS, WHEN USED, MAY CAUSE TUNGSTEN T O BE LEFT IN THE WELD. (SQN ISSUES ADDRESSED IN RP T WP-13-SQN R0)
02	WE	50213	S	WBN	1 N Y N N 2 NA SR NA NA			
03	WE	50313	S	WBN	1 N N Y N 2 NA NA SR NA			
04	WE	50413	S	WBN	1 N N N Y 2 NA NA NA SR			
XX -85-068-00801 T50138	WE	50213	N	BLN	1 N Y N N 2 NA SR NA NA		QTC	BELLEFONTE - CONCERNS OVER THE CLEANLINESS/PURITY OF BOTTLED GAS USED IN WELDING AND PNEUMATIC TESTI NG WERE EXPRESSED BY NRC INSPECTOR IN 1982-1983. NO CORRRECTIVE ACTION IS KNOWN TO HAVE BEEN TAKEN. DETAILS KNOWN TO QTC, WITHELD DUE TO CONFIDENTIA LITY. CONSTRUCTION DEPT. CONCERN. CI HAS NO FURT HER INFORAMTION. NO FOLLON UP REQUIRED.

3 CONCERNS FOR CATEGORY WE SUBCATEGORY 50213



CATEGORY: WE NON QA/QC WELDING
SUBCATEGORY: 50216 STRUCTURAL STEEL PREWELD INSPECTION AT BLNP

CONCERN NUMBER	CAT	SUB CAT	S H R D	PLT LOC	1 REPORT APPL 2 SAF RELATED BF	BL	SQ	WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
BEM-85-001-00101 T50227	WE	50116	S	BLN	1 Y	N	N	N		QTC	BELLEFONTE - THE GENERAL CONST. SPEC. G-29C, PROCESS SPEC. O.C.1.1 IS IN CONFLICT WITH THE TVA QUALITY ASSURANCE COMMITMENTS AS STATED BY THE TVA TOPICAL REPORT, TVA-TR75-1A, IN THAT PROCESS SPEC. O.C.1.1, SECTION 6.0 ALLOWS UNCERTIFIED WELDER FOREMEN, WHO HAVE DIRECT RESPONSIBILITY FOR THE INSTALLATION, TO PERFORM PREWELD INSPECTIONS. NUCLEAR POWER CONCERN. CI HAS NO FURTHER INFORMATION. (SQN ISSUES ADDRESSED IN RPT WP-16-SQN R2)
					2 SR	NA	NA	NA			
02	WE	50216	S	BLN	1 N	Y	N	N			
					2 NA	SR	NA	NA			
03	WE	50316	S	BLN	1 N	N	Y	N			
					2 NA	NA	SR	NA			
04	WE	50416	S	BLN	1 N	N	N	Y			
					2 NA	NA	NA	SR			
BEM-85-001-00201 T50227	WE	50116	S	BLN	1 Y	N	N	N		QTC	BELLEFONTE - UNCERTIFIED WELDER FOREMEN ARE REQUIRED BY TVA TO PERFORM PREWELD INSPECTIONS ON INSTALLATIONS THEY ARE DIRECTLY RESPONSIBLE FOR WHICH IS A VOILATION OF ANSI REQUIREMENTS. NUCLEAR POWER CONCERN. CI HAS NO FURTHER INFORMATION. (SQN ISSUES ADDRESSED IN RPT WP-16-SQN R2)
					2 SR	NA	NA	NA			
02	WE	50216	S	BLN	1 N	Y	N	N			
					2 NA	SR	NA	NA			
03	WE	50316	S	BLN	1 N	N	Y	N			
					2 NA	NA	SR	NA			
04	WE	50416	S	BLN	1 N	N	N	Y			
					2 NA	NA	NA	SR			
BFM-85-001-00101 T50221	WE	50116	S	BLN	1 Y	N	N	N		QTC	BELLEFONTE - THE GENERAL CONST. SPEC. G-29C, PROCESS SPEC.O.C.1.1 IS IN CONFLICT WITH THE TVA QUALITY ASSURANCE COMMITMENTS AS STATED BY THE TVA TOPICAL REPORT, TVA-TR75-1A, IN THAT PROCESS SPEC. O.C.1.1, SECTION 6.0 ALLOWS UNCERTIFIED WELDER FOREMEN, WHO HAVE DIRECT RESPONSIBILITY FOR THE INSTALLATION, TO PERFORM PREWELD INSPECTIONS. NUCLEAR POWER CONCERN. CI HAS NO FURTHER INFORMATION. (SQN ISSUES ADDRESSED IN RPT WP-16-SQN R2)
					2 SR	NA	NA	NA			
02	WE	50216	S	BLN	1 N	Y	N	N			
					2 NA	SR	NA	NA			
03	WE	50316	S	BLN	1 N	N	Y	N			
					2 NA	NA	SR	NA			
04	WE	50416	S	BLN	1 N	N	N	Y			
					2 NA	NA	NA	SR			

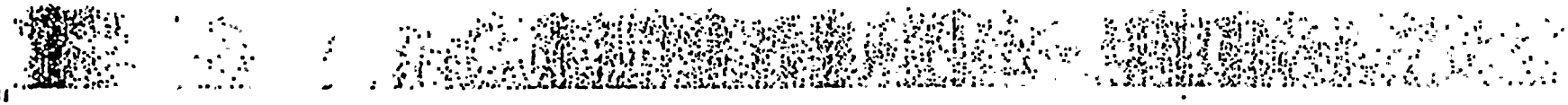
CATEGORY: WE NON QA/QC WELDING SUBCATEGORY: 50216 STRUCTURAL STEEL PREWELD INSPECTION AT BLNP

CONCERN NUMBER	CAT	SUB CAT	S H R D	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
BFN-85-001-00201 T50221	WE	50116	S	BFN	1 Y N N N 2 SR NA NA NA		QTC	BROWN'S FERRY - UNCERTIFIED WELDER FOREMEN ARE REQUIRED BY TVA TO PERFORM PRE-WELD INSPECTIONS ON INSTALLATIONS THEY ARE DIRECTLY RESPONSIBLE FOR WHICH IS A VIOLATION OF ANSI REQUIREMENTS. NUCLEAR POWER CONCERN. CI HAS NO FURTHER INFORMATION. (SQN ISSUES ADDRESSED IN RPT WP-16-SQN R2)
02	WE	50216	S	BFN	1 N Y N N 2 NA SR NA NA			
03	WE	50316	S	BFN	1 N N Y N 2 NA NA SR NA			
04	WE	50416	S	BFN	1 N N N Y 2 NA NA NA SR			
IN -85-026-00101 T50002	WE	50216	S	WBN	1 N Y N N 2 NA SR NA NA	I-85-108-WBN	QTC	RESPONSIBILITY FOR FITUP INSPECTIONS OF WELDS ON STRUCTURAL AND MISCELLANEOUS STEEL AS WELL AS PIPE RUPTURE RESTRAINT DEVICES WAS TAKEN FROM CIVIL QUALITY CONTROL AND IS NOW BEING HANDLED BY CRAFT FOREMEN. THERE HAVE BEEN NUMEROUS INSTANCES OF PAST INSPECTIONS WITH INADEQUATE FITUPS.
02	WE	50416	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-212-00101 T50152	WE	50216	S	WBN	1 N Y N N 2 NA SR NA NA	I-85-444-WBN	QTC	*WELD FIT-UP INSPECTION WHICH WERE PERFORMED BY QC DURING 1978-1980 ON DUCT SUPPORTS IN REACTOR BUILDINGS #1 AND 2 ARE NOT BEING PERFORMED ON DUCT SUPPORTS PRESENTLY BEING INSTALLED IN REACTOR BLDG. # 2. CI QUESTIONS WHY THESE FIT-UP INSPECTIONS WERE REQUIRED DURING 1978-1980 AND NOT REQUIRED AT PRESENT TIME. CONSTR. DEPT. CONCERN. FURTHER INFORMATION AVAILABLE, WITHHELD DUE TO CONFIDENTIALITY. NO FOLLOWUP REQUIRED. (SQN ISSUES ADDRESSED IN RPT WP-16-SQN R2)
02	WE	50316	S	WBN	1 N N Y N 2 NA NA SR NA			
03	WE	50416	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-682-00201 T50116	WE	50216	S	WBN	1 N Y N N 2 NA SR NA NA		QTC	AWS WELD INSPECTION METHOD IS QUESTIONABLE. EXAMPLE: AWS WELDS ARE INSPECTED FOR VISUAL FINAL APPEARANCE ONLY (REF: QCP 4.13 VTC). NO FITUP OR FULL PENETRATION INSPECTIONIS PERFORMED OTHER THAN BY THE CRAFT. EXAMPLE: 050 NOTES ALLOW 100% OVER ON ALL FILLET WELDS AND LENGTH IS TO BE DETERMINED BY WELDER. CONSEQUENTLY WHEN DRAWING REQUIRES 2 SIDES OF SQUARE TUBING TO BE WELDED AND WELDER WELDS THE WRONG 2 SIDES, HE GOES BACK AND WELDS THE OTHER 2 SIDES THUS MAKING AN ALL AROUND WELD WHICH IS N
02	WE	50416	S	WBN	1 N N N Y 2 NA NA NA SR			

CATEGORY: WE NON QA/QC WELDING
SUBCATEGORY: 50216 STRUCTURAL STEEL PREWELD INSPECTION AT BLNP

CONCERN NUMBER	CAT	SUB CAT	SHR D	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
WBM-85-001-00102 T50227	WE	50116	S	WBN	1 Y N N N 2 SR NA NA NA		QTC	WATTS BAR - THE GENERAL CONST. SPEC. G-29C, PROCES S SPEC. O.C.1.1 IS IN CONFLICT WITH THE TVA QUALIT Y ASSURANCE COMMITMENTS AS STATED BY THE TVA TOPIC AL REPORT, TVA-TR75-1A, IN THAT PROCESS SPEC. O.C. 1.1, SECTION 6.0 ALLOWS UNCERTIFIED WELDER FOREMEN , WHO HAVE DIRECT RESPONSIBILITY FOR THE INSTALLAT ION, TO PERFORM PREWELD INSPECTIONS. NUCLEAR POWE R CONCERN. CI HAS NO FURTHER INFORMATION. (SQN IS SUES ADDRESSED IN RPT WP-16-SQN R2)
03	WE	50216	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50316	S	WBN	1 N N Y N 2 NA NA SR NA			
05	WE	50416	S	WBN	1 N N N Y 2 NA NA NA SR			
WBM-85-001-00201 T50227	WE	50116	S	SQN	1 Y N N N 2 SR NA NA NA		QTC	SEQUOYAH - UNCERTIFIED WELDER FOREMEN ARE REQUIRED BY TVA TO PERFORM PREWELD INSPECTIONS ON INSTALLA TIONS THEY ARE DIRECTLY RESPONSIBLE FOR WHICH IS A VIOLATION OF ANSI REQUIREMENTS. NUCLEAR POWER CO NCERN. CI HAS NO FURTHER INFORMATION. (TRANSFERRE D TO WBM-85-001-003, CONCERN HAS ADDRESSED BY WELD ING CATEGORY BEFORE TRANSFER WAS DOCUMENTED, AND W ILL NOT BE INPUT TO GN CATEGORY, SQN ISSUES ADDRES SED IN RPT WP-16-SQN R2)
02	WE	50216	S	SQN	1 N Y N N 2 NA SR NA NA			
03	WE	50316	S	SQN	1 N N Y N 2 NA NA SR NA			
04	WE	50416	S	SQN	1 N N N Y 2 NA NA NA SR			
WI -85-030-00701 T50185	WE	50116	S	WBN	1 Y N N N 2 SR NA NA NA		QTC	THE WBN FSAR COMMITS TVA TO THE REQUIREMENTS OF AW S D.1.1 FOR STRUCTURAL WELDING. CONTRARY TO THESE REQUIREMENTS, THE G-29C PROCESS SPECIFICATION WAS MODIFIED TO REFLECT LESS STRINGENT INSPECTION REQ UIREMENTS (E.G. VISUAL INSPECTION OF WELDS THROUGH PAINT (CARBO ZINC PRIMER) AND NO DOCUMENTED INSPE CTION BY CERTIFIED VISUAL INSPECTORS (FIT-UP, IN-P ROCESS) PRIOR TO FINAL INSPECTION.) CI HAS NO ADDI TIONAL INFORMATION. NUC. POWER DEPT. CONCERN. (SQ N ISSUES ADDRESSED IN RPT WP-16-SQN R2)
02	WE	50102	S	WBN	1 Y N N N 2 SR NA NA NA			
03	WE	50216	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50316	S	WBN	1 N N Y N 2 NA NA SR NA			
05	WE	50416	S	WBN	1 N N N Y 2 NA NA NA SR			
06	WE	50202	S	WBN	1 N Y N N 2 NA SR NA NA			
08	WE	50402	S	WBN	1 N N N Y 2 NA NA NA SR			

10 CONCERNS FOR CATEGORY WE SUBCATEGORY 50216



REFERENCE - ECPS120J-ECPS121C
FREQUENCY - REQUEST
ONP - ISSS - RUM

TENNESSEE VALLEY AUTHORITY
OFFICE OF NUCLEAR POWER
EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY

RUN TIME - 11:45:02
RUN DATE - 12/17/87

CATEGORY: WE NON QA/QC WELDING SUBCATEGORY: 50234 WELD QUALITY AT BLNP

CONCERN NUMBER	CAT	SUB CAT	S H R D	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ NB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
BNPQCP10.35-1201	WE	50234	N	BLN	1 N Y N N 2 NA SS NA NA		OECP	CABLE TRAYS IN CONTROL BUILDING HAVE WELDS BELIEVED TO BE OF LOW QUALITY EL 629 C-8 TO C-10.
IN -85-282-00202 T50014	WE	50111	S	WBN	1 Y N N N 2 SR NA NA NA	IN-85-282-002	QTC	UNTIL RECENTLY, TVA WELD INSPECTORS REQUIRED ALL PIPE WELDS TO BE SURFACE GROUND TO A SMOOTH FINISH. THE CONCERN IS THAT SMOOTH GRINDING MAY ACTUALLY MASK A SURFACE DEFECT WHICH WOULD OTHERWISE BE DETECTABLE. NO FURTHER DETAILS WERE AVAILABLE. (SQN ISSUES ADDRESSED IN RPT WP-11-SQN R1)
03	WE	50234	S	WBN	1 N Y N N 2 NA SR NA NA			
04	WE	50311	S	WBN	1 N N Y N 2 NA NA SR NA			
05	WE	50411	S	WBN	1 N N N Y 2 NA NA NA SR			
IN -85-299-00301 T50188	WE	50319	S	WBN	1 N N Y N 2 NA NA SR NA		QTC	SS WELDS SEEM TO HAVE EXCESS METAL REMOVED AT BUTT WELD JOINTS, ALSO THE WELDS EXHIBIT EXCESSIVE SHRINKAGE AT JOINTS. THIS CONCERN IS GENERIC BUT HAVE EXAMPLES. THIS HAS BEEN NOTICED FOR THE PAST 6 YEARS IN BOTH UNITS. DETAILS KNOWN TO QTC, WITHHELD DUE TO CONFIDENTIALITY. CONSTRUCTION DEPT CONCER. (SQN ISSUES ADDRESSED IN RPT WP-19-SQN R1)
02	WE	50234	S	WBN	1 N Y N N 2 NA SR NA NA			
03	WE	50111	S	WBN	1 Y N N N 2 SR NA NA NA			
04	WE	50432	S	WBN	1 N N N Y 2 NA NA NA SR			
05	WE	50411	S	WBN	1 N N N Y 2 NA NA NA SR			
QCP10.35-8-11 01	WE	50234	N	BLN	1 N Y N N 2 NA SR NA NA		OECP	A WELD ON A DUCT SUPPORT HANGER HAS NOT BEEN COMPLETED AND IS OF POOR WORKMANSHIP. EL 610 RB NEAR C-10 & C-11.
QCP10.35-8-3 01	WE	50234	N	BLN	1 N Y N N 2 NA SS NA NA		OECP	HANGERS IN ERCW TUNNEL NOT SAFE BECAUSE WELDS WERE NOT MADE BY QUALITY WELDERS (ALTHOUGH THEY WERE CERTIFIED WELDERS). THESE BAD WELDS PASSED INSPECTION.

5 CONCERNS FOR CATEGORY WE SUBCATEGORY 50234

REFERENCE - ECPS120J-ECPS121C
FREQUENCY - REQUEST
ONP - ISSS - RHM

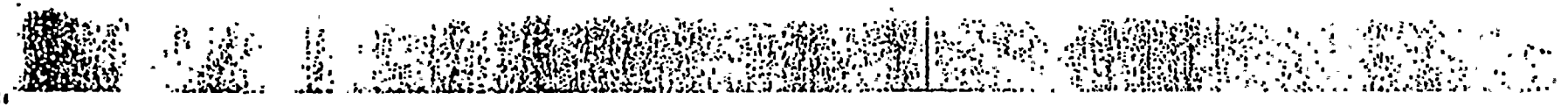
TENNESSEE VALLEY AUTHORITY
OFFICE OF NUCLEAR POWER
EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY

RUN TIME - 11:45:02
RUN DATE - 12/17/87

CATEGORY: HE NON QA/QC WELDING
SUBCATEGORY: 50235 WELD INSPECTION PROCEDURES AT BLNP

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ HB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
IH -86-230-00301 T50194	HE	50414	S	WBN	1 N N N Y 2 NA NA NA SR		QTC	PREVIOUSLY REJECTED ITEMS (HANGER WELDS) ARE FREQUENTLY ACCEPTED BY SOMEONE OTHER THAN A SUPERVISOR OR HIGH LEVEL (GRADE) PERSONNEL. DETAILS KNOWN TO QTC, WITHHELD DUE TO CONFIDENTIALITY. NUC. POWER DEPT. CONCERN. CI WOULD NOT PROVIDE FURTHER INFORMATION.
02	HE	50235	S	WBN	1 N Y N N 2 NA SR NA NA			
PH -85-012-X0301 T50077	HE	50135	S	WBN	1 Y N N N 2 SR NA NA NA	PH-85-012-X03	QTC	WELDING AND BRAZING INSPECTION OF SAFETY-RELATED HVAC DUCTWORK WAS DELETED SUBSEQUENT TO 1981 FROM THE QA PROGRAM WITHOUT ADEQUATE JUSTIFICATION. WATTS BAR UNITS 1 & 2, SAFETY RELATED DUCTWORK. ADDITIONAL DETAILS ARE AVAILABLE IN FILE. (SQN ISSUES ADDRESSED IN RPT WP-05-SQN R1)
02	HE	50305	S	WBN	1 N N Y N 2 NA NA SR NA			
03	HE	50235	S	WBN	1 N Y N N 2 NA SR NA NA			
04	HE	50405	S	WBN	1 N N N Y 2 NA NA NA SR			
XX -85-034-X0201 T50138	IH	60300	S	BLN	1 N Y N N 2 NA NO NA NA		QTC	EMPLOYEE (KNOWN) FALSIFIED WELD RECORDS. BELLEFONTE, UNIT #1, 1977-1980, CONTAINMENT WALL. CONSTRUCTION DEPT. CONCERN. CI HAS NO MORE INFORAMTION. NO FOLLOW UP REQUIRED.
02	HE	50235	S	BLN	1 N Y N N 2 NA SR NA NA			
XX -85-034-00101 T50137	HE	50235	N	BLN	1 N Y N N 2 NA SR NA NA		QTC	BELLEFONTE QC INSPECTOR (NAME KNOWN) SIGNED OFF WELDS FOR CONTAINMENT WALL (APPROX. DATES KNOWN) WITHOUT PHYSICALLY INSPECTING THEM. CI IS ANONYMOUS. REASON: THIS CONCERN HAS BEEN REVISED TO DELETE AN ADDITIONAL CONCERN WHICH HAS BEEN ADDRESSED. STATUS: THIS CONCERN WAS ASSIGNED TO NSRS TO INVESTIGATE ON 8-8-85. NO FOLLOW-UP REQUIRED.
XX -85-068-00501 T50138	IH	60300	S	BLN	1 N Y N N 2 NA NO NA NA		QTC	BELLEFONTE - DURING A REVIEW OF WELD CARDS BY THE AUTHORIZED NUCLEAR INSPECTOR (ANI), IT WAS OBSERVED THAT THE HEAT NUMBER WAS MARKED "N/A". TWO WEEKS LATER HEAT NUMBERS WERE FOUND TO HAVE BEEN ENTERED ON THE DOCUMENTS. WHEN THE ANI QUESTIONED WHERE THE NUMBERS CAME FROM, NO EXPLANATION WAS PROVIDED. CONSTRUCTION DEPT. CONCERN. CI HAS NO FURTHER INFORMATION. NO FOLLOW UP REUIRED.
02	HE	50235	S	BLN	1 N Y N N 2 NA SR NA NA			

5 CONCERNS FOR CATEGORY HE SUBCATEGORY 50235



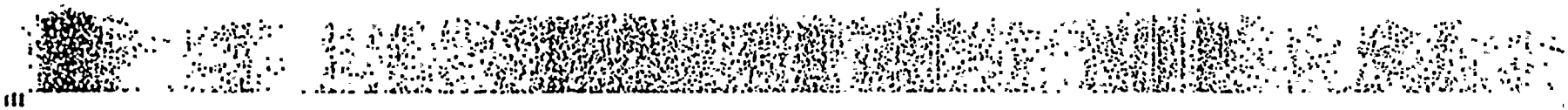
CATEGORY: WE NON QA/QC WELDING SUBCATEGORY: 50236 WELD REPAIRS AT BLNP

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ NB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
BNPQCP10.35-2101	WE	50236	N	BLN	1 N Y N N 2 NA SR NA NA		OECP	4" SS PIPE ON NM SYSTEM WAS IMPROPERLY REPAIRED. PIPE WAS DAMAGED WHILE CUTTING A SLEEVE.
2850162005 01	OP	30803	S	NPS	1 Y Y Y Y 2 SS SS SS SS		NRC	TVA MAKES REPAIRS TO THEIR NUCLEAR PLANTS WHICH AR E NOT IN ACCORDANCE WITH ASME CODES, SUCH AS OVERL AYS, PATCHES, AND EVEN FURMATITE (SOPHISTICATED GL UE). (SQN ISSUES ADDRESSED IN RPT WP-25-SQN RO)
02	WE	50125	S	NPS	1 Y N N N 2 SS NA NA NA			
03	WE	50236	S	NPS	1 N Y N N 2 NA SS NA NA			
04	WE	50325	S	NPS	1 N N Y N 2 NA NA SS NA			
05	WE	50425	S	NPS	1 N N N Y 2 NA NA NA SS			

2 CONCERNS FOR CATEGORY WE SUBCATEGORY 50236

CATEGORY: WE NON QA/QC WELDING SUBCATEGORY: 50243 ADEQUACY OF PROCEDURES AT BLNP

CONCERN NUMBER	CAT	SUB CAT	SHR D	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
IN -85-406-00201 T50013	WE	50135	S	WBN	1 Y N N N 2 SS NA NA NA		QTC	PRIOR TO 1979 THERE WAS NO SPECIFIC WELD INSPECTIO N CRITERIA FOR USE BY INSPECTION PERSONNEL. IT IS BELIEVED THAT THIS PROBLEM WAS VALID TVA SYSTEM W IDE- ALL PLANTS. (SQN ISSUES ADDRESSED IN RPT WP-0 9-SQN R1)
02	WE	50309	S	WBN	1 N N Y N 2 NA NA SS NA			
03	WE	50243	S	WBN	1 N Y N N 2 NA SS NA NA			
04	WE	50432	S	WBN	1 N N N Y 2 NA NA NA SS			
QCP10.35-8-4 01	WE	50243	N	BLN	1 N Y N N 2 NA SR NA NA		DECP	CI TOLD TO START USING A DIFFERENT HEAT TREATING P ROCESS WITH NO EXPLANATION.
XX -85-102-00601 T50172	QA	80201	S	BFN	1 N N Y N 2 NA NA SR NA		QTC	BROWN'S FERRY: THE VISUAL EXAMINATION PROCEDURE WH ICH COVERS ASME SECTION II IS VERY NON SPECIFIC. NUCLEAR POWER DEPT. CONCERN. CI HAS NO ADDITIONAL INFORMATION. NO FOLLOW UP REQUIRED.
03	WE	50135	S	BFN	1 Y N N N 2 SR NA NA NA			
04	WE	50243	S	BFN	1 N Y N N 2 NA SR NA NA			
05	WE	50432	S	BFN	1 N N N Y 2 NA NA NA SR			
06	QA	80252	S	BFN	1 N N Y N 2 NA NA SR NA			
XX -85-102-00701 T50172	WE	50243	S	BFN	1 N Y N N 2 NA SR NA NA		QTC	BROWN'S FERRY: NDE INSPECTORS CAN ONLY WRITE A NOT ICE OF INSPECTION ON IN-SERVICE RELATED DEFECTS. PRESERVICE DEFECTS CAN ONLY BE IDENTIFIED BY A MAI NTENANCE REQUEST. NUCLEAR POWER DEPT. CONCERN. C I HAS NO ADDITIONAL INFORMATION. NO FOLLOW UP REQ UIRED.
02	WE	50135	S	BFN	1 Y N N N 2 SR NA NA NA			
03	WE	50426	S	BFN	1 N N N Y 2 NA NA NA SR			



REFERENCE - ECPS120J-ECPS121C
FREQUENCY - REQUEST
ONP - ISSS - RHH

TENNESSEE VALLEY AUTHORITY
OFFICE OF NUCLEAR POWER
EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY

RUN TIME - 11:45:02
RUN DATE - 12/17/87

CATEGORY: HE HON QA/QC HELDING SUBCATEGORY: 50243 ADEQUACY OF PROCEDURES AT BLHP

CONCERN NUMBER	CAT	SUB CAT	SHR D	PLT LOC	1 REPORT APPL / 2 SAF RELATED BF	BL	SQ	HB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION
XX -85-102-01101 T50172	HE	50243	S	SQN	1 N	Y	N	N	I-85-735-SQN	QTC	SEQUOYAH: NDE INSPECTORS CAN ONLY WRITE A NOTICE O F INSPECTION ON IN-SERVICE RELATED DEFECTS. PRESE RVICE RELATED DEFECTS CAN ONLY BE IDENTIFIED BY A MAINTENANCE REQUEST. NUCLEAR POWER DEPT. CONCERN. CI HAS NO FURTHER INFORMATION. NO FOLLOW UP REQU IRED. (SQN ISSUES ADDRESSED IN NSRS RPT I-85-735-S QN)
					2 NA	SR	NA	NA			
02	HE	50399	S	SQN	1 N	N	Y	N			
					2 NA	NA	SR	NA			
03	HE	50135	S	SQN	1 Y	N	N	N			
					2 SR	NA	NA	NA			
04	HE	50426	S	SQN	1 N	N	N	Y			
					2 NA	NA	NA	SR			

5 CONCERNS FOR CATEGORY HE SUBCATEGORY 50243

ATTACHMENT B

CONCERN	DESCRIPTION OF ISSUES	COMMENTS
BLN-86-015-001 EX-85-039-001 IN-85-234-001 IN-85-352-002 IN-85-424-001 IN-85-424-004 IN-85-424-006 IN-85-424-007	Inadequate control of weld rod.	The Bellefonte program for control of welding filler material meets the requirements of ANSI/AWS D1.1 Section 4 and ASME Section III NB-4000.
IN-85-426-001 IN-85-441-003 IN-85-453-009 IN-85-454-004 IN-85-501-001 IN-85-672-003 IN-86-047-001 WI-85-053-004 XX-85-068-003 XX-85-068-006 IN-85-247-001	Lack of portable rod ovens to protect coated electrodes from moisture absorption.	Atmospheric exposure times are controlled by BNP-QCP-8.1. Also, electrodes are qualified for extended exposure, making the use of portable ovens unnecessary.
	Poor quality E7018 electrodes.	Electrode operability is a subjective evaluation for which there is no quantitative industry standard. DNC requires a series of operability tests prior to award of a contract to supply coated electrodes. All welding material used for permanent plant features meets the requirements of ASME Section II and Section III.
	Administrative practice for the return of filler material.	The administrative practices for return of filler material have no welding related technical significance, and are addressed by ECTG Subcategory 70200, "Work Rules". This issue has been addressed by Weld Project Evaluation Report WP-01-BLN.

CONCERN	DESCRIPTION OF ISSUES	COMMENTS
IN-85-458-001 IN-86-019-001 NS-85-001-001 PH-85-040-001 WI-85-013-003 WI-85-030-007 WI-85-030-008 WI-85-041-006 WI-85-041-008	The Process Specification permitted inspection of AWS welds through coating of carbo-zinc primer. Thousands of welds may have been inspected through primer. There is no documentation to show which welds were involved. Inspectors did not understand the coating thickness limit for inspecting primed welds.	The Process Specification in question was site unique for Watts Bar, and was never implemented at Bellefonte. The BLN specification and procedures meet the requirements of ANSI/AWS D1.1. This issue has been addressed by Weld Project Evaluation Report WP-02-BLN.
EX-85-021-002 IN-85-113-003 IN-85-335-002 IN-85-426-002 IN-85-480-004 IN-85-725-X15 IN-85-940-X04 JLH-85-002	Inadequate basis for welders qualification continuity updates. Personnel whose duties do not require welding continue to have their qualification updated.	From the beginning of construction until 1976 MEU verified each welder quarterly, either by direct observation or based on written statements by Craft Supervision. From 1976 to date, verification of process usage has been based on rod withdrawal slips. Since 1982, a statement of process usage has been entered on the rod slip. These methods satisfy the requirements of ASME Section IX and AWS D1.1 and parallel industry practices. Only personnel actively engaged in welding activities are qualified at BLN. The qualifications of individuals in welder foremen positions are not updated even though provided for in the BLN implementing procedure.

CONCERN	DESCRIPTION OF ISSUES	COMMENTS
	Welders on restriction (not allowed to weld) kept their qualification continuity updated.	Neither ASME Section IX nor AWS D1.1 uses the term restriction when referring to welder qualification. The only other instance where welders might be considered "restricted" from welding is when they have a personnel injury or sickness that prevents them from physically performing the welding activity. These individuals are allowed to maintain their qualification up to the time for continuity update.
	The possibility exists that one welder could weld or complete a test plate for another	If two individuals are observed in the same test booth at any time or for any reason during testing, both individuals are immediately suspended from further testing and denied qualification.
	Welders qualification at Muscle Shoals may not have had the required number of bend tests.	Welding Engineering at BLN does not certify welders transferred from other sites without reviewing their Performance Qualification Test record(s). This issue has been addressed by Weld Project Evaluation Report WP-03-BLN.
IN-85-007-001 IN-85-134-002 IN-85-406-003	Availability of inspection tools.	Inspection tools have been available since the beginning of construction. These tools were both site fabricated and commercially procured. This issue has been addressed by Weld Project Evaluation Report WP-04-BLN.

CONCERN	DESCRIPTION OF ISSUES	COMMENTS
IN-85-476-004 IN-85-981-001 XX-85-107-001 WI-85-041-002 WI-85-081-007	Qualification of Welding Inspectors. Topical Report not in compliance with ANSI N45.2.6.	Welding Inspectors are qualified in accordance with the TVA Quality Assurance program. Welding Inspectors are qualified and certified using SNT-TC-1A as a guide, rather than ANSI N45.2.6. Exceptions to Reg. Guide 1.58 are made in the Topical Report. This issue has been addressed by Weld Project Evaluation Report WP-06-BLN.
EX-85-008-001 IN-85-706-001 IN-86-158-006 XX-85-045-001	Qualification and experience of Subjourneymen. Adequacy of TVA Welder Training Program.	Subjourneymen are utilized in accordance with the applicable labor agreement and good management practices. Welders are tested and qualified in accordance with AWS D1.1 and ASME Section IX. This issue has been addressed by Weld Project Evaluation Report WP-07-BLN.
XX-85-110-001	QAE-2 may not have been implemented at BLN.	QAE-2 was a study to identify improvements that would make the overall welding and NDE program more effective. The one deficiency at BLN was previously identified, tracked and resolved as finding number 1 in audit BN-W-80-08. This issue has been addressed by Weld Project Evaluation Report WP-10-BLN.

CONCERN	DESCRIPTION OF ISSUES	COMMENTS
IN-85-247-002 IN-85-303-001 XX-85-068-008	Suitability of welding equipment.	The equipment used at BLN has sufficient features to operate within the parameters of the approved welding procedures and to make acceptable welds.
	Purity of bottled gases used in welding and pneumatic testing.	The procurement specification requires a -40°F dew point. Test reports are only required at the option of DNC. This issue has been addressed by Weld Project Evaluation Report WP-13-BLN.
BEM-85-001-001 BEM-85-001-002 BFM-85-001-001 BFM-85-001-002 WBM-85-001-001 WBM-85-001-002 WI-85-030-007 IN-85-026-001 IN-85-212-001 IN-85-682-002	Foremen perform pre-weld inspections, which is not in accordance with the Topical Report, ANSI N45.2.5 and AWS D1.1.	AWS D1.1 allows pre-weld activity examinations to be on a sampling basis. Bellefonte procedures and specifications mandated surveillance programs of all welding activities. Practice at BLN does not violate the TVA Topical Report or ANSI N45.2.5. This issue has been addressed by Weld Project Evaluation Report WP-16-BLN.
IN-85-282-002 IN-85-299-003 BNPQCP10.35-12 BNPQCP10.35 8-11 BNPQCP10.35-8-3	Surface grinding of welds.	Surface grinding of welds is provided for by the ASME, ANSI and AWS codes.
	Shrinkage of stainless steel butt joints.	Some shrinkage is inherent in girth butt welded joints in stainless steels. To minimize shrinkage, heat input during welding is controlled by adherence to approved welding procedures.

CONCERN	DESCRIPTION OF ISSUES	COMMENTS
	Safety of the hanger welds in the ERCW tunnel, quality of cable tray welds in the control building, and incomplete weld(s) on a duct support.	All support welds, duct support welds and miscellaneous structural welds have been reinspected and reworked as required. This reinspection effort was accomplished in accordance with the dispositions of numerous nonconformances which were considered significant and reported to the USNRC under 10 CFR 50.55(e). This issue has been addressed in Weld Project Evaluation Report WP-34-BLN.
PH-85-012-X03 IN-86-230-003 XX-85-034-001 XX-85-034-X02 XX-85-068-005	Welding and brazing inspection of safety related ductwork deleted from the QA Program.	Procedure BNP 6.4, Rev 1 establishes inspection criteria for safety related ductwork.

CONCERN	DESCRIPTION OF ISSUES	COMMENTS
	During review of weld cards by the ANI, it was noted that the heat number was marked N/A. Two weeks later the ANI found that the heat number had been entered on the cards.	Based on the fact that this issue provided insufficient information on which to base an investigation, the concern was administratively closed by the OIG.
	Falsification of weld records for Containment wall.	Issue is factual and was originally reported as an allegation in 1980. TVA personnel at Bellefonte issued a Nonconformance Report which was reported to the NRC under 10 CFR 50.55 (e).
	Rejected hanger welds being accepted by personnel other than the Supervisor or higher level Inspector.	The weld inspection program at BLN requires that rejectable items be documented. Reinspection is accomplished only after disposition of corrective action has been made. The reinspection may or may not be performed by an inspector of the same certification level as the inspector that previously rejected the item. This issue has been addressed in Weld Project Evaluation Report WP-35-BLN.
2850162005 BNPQCP10.35-21	Weld repairs such as overlays, patches and Furmanite (viscous fluid sealant) are not in accordance with the ASME Code.	Overlay welding and temporary repairs by patching are approved methods in use at BFN and SQN. They are not used at BLN. Use of viscous sealant is outside the scope of the Weld Project, and has been addressed by Operations Report 30800.

CONCERN	DESCRIPTION OF ISSUES	COMMENTS
	Four inch stainless steel pipe on Spent Fuel Cooling (NM) system improperly repaired.	This issue was investigated by the site Quality Control and Welding Engineering Units. The evaluation included chemical and magnetic tests to check for residue from a flame cutting operation. No evidence could be found indicating that a repair was made to the pipe identified by the concern. This issue has been addressed by Weld Project Evaluation Report WP-36-BLN.
IN-85-406-002 XX-85-102-007 XX-85-102-011 XX-85-102-006 BNPQCP10.35-8-4	No specific inspection criteria prior to 1979.	BLN has had a network of procedures in place throughout construction. These procedures provide all of the necessary inspection criteria.
	Reporting of inservice and preservice defects.	The Notice of Indication is used to report defects identified within the defined scope of an inspection, inservice or preservice. The Maintenance Request is used to report observations identified outside the defined scope of an inspection.
	Adequacy of visual examination procedure for ASME Section III.	
	Adequacy of visual examination procedure for ASME Section III.	Procedure BNP-QCP-7.5 was issued on 12-3-75. This procedure provides all of the necessary instructions and criteria for visual examination of welds.

CONCERN	DESCRIPTION OF ISSUES	COMMENTS
	CI told to change heat treating process with no explanation.	This issue had been previously investigated and resolved through a site implemented employee concerns program. The process in question was in accordance with the specification. This issue has been addressed by Weld Project Evaluation Report WP-43-BLN.