ECSP Corrective Action Tracking Document (CATD)

INITIATION Applicable ECSP Report No: 310.03-SQN Revision 1

1. Immediate Corrective Action Required: ☐ Yes ☑ No
2. Stop Work Recommended: ☐ Yes ☑ No
3. CATD No. 310.03-SQN-01 4. INITIATION DATE 10-10-86
5. RESPONSIBLE ORGANIZATION: Operations
6. PROBLEM DESCRIPTION: ☐ QR ☑ NQR Hydrazine spill of 300 gallons in Containment Building. Implies concern with inadequacies in plant operations/procedures adherance/control of valve and system operations.

☐ ATTACHMENTS

7. PREPARED BY: NAME T. W. White DATE: 10-10-86
8. CONCURRENCE: CEG-H W. R. Lagan DATE: 10-14-86
9. APPROVAL: ECTG PROGRAM MGR. R K Guthrie DATE: 4/7/87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: Corrective action is acceptable as proposed.

CAP received for report reviews

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: S03 860912 809 DATE: 09/16/86
12. CONCURRENCE: CEG-H: W. R. Lagan DATE: 10/14/86
SRP: DATE:
DATE:
DATE:
DATE:
ECTG PROGRAM MGR: DATE:

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE TITLE DATE

2053T

ECSP Corrective Action Tracking Document (CATD)

INITIATION Applicable ECSP Report No: 310.03-BFN

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. OP 31003-BFN-01 4. INITIATION DATE 11-5-86
5. RESPONSIBLE ORGANIZATION:
6. PROBLEM DESCRIPTION: ☐ QR ☒ NQR Lack of administrative controls on root valves to tygon tubing being used for level control.

☒ ATTACHMENTS

7. PREPARED BY: NAME D. E. Smith DATE: 11-5-86
8. CONCURRENCE: CEG-H [illegible] DATE: 11-10-86
9. APPROVAL: ECTG PROGRAM MGR. [illegible] DATE: 11/12/86

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: Revise Standard Practice BF 14.25, Clearance Procedure, to require that tygon tubing utilized for temporary level indication which has the potential for being over-pressurized which would result in tubing rupture be controlled by a caution order. Although this is not a Unit 2 restart item, the revision will be issued by March 15, 1987. R33 870129 853

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: [signature] DATE: 1/27/87
12. CONCURRENCE: CEG-H: [signature] for WRL DATE: 2/2/87
SRP: DATE:
DATE:
DATE:
DATE:
ECTG PROGRAM MGR: DATE:

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE TITLE DATE

2453T

JAN 21 1987

ECSP Corrective Action Tracking Document (CATD)

INITIATION Applicable ECSP Report No: 310.03-BLN

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. OP 31003-BLN-01 4. INITIATION DATE 11-6-86
5. RESPONSIBLE ORGANIZATION:
6. PROBLEM DESCRIPTION: ☐ QR ☒ NQR Lack of administrative controls on root valves to tygon tubing being used for level control.

☒ ATTACHMENTS

7. PREPARED BY: NAME D. E. Smith DATE: 11-6-86
8. CONCURRENCE: CEG-H W. R. [signature] DATE: 11-10-86
9. APPROVAL: ECTG PROGRAM MGR. [signature] for DATE: 11/12/86

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: "See attached."

☑ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: [signature] for DATE: 5/4/87
12. CONCURRENCE: CEG-H: W. R. [signature] DATE: 5-7-87
SRP: DATE:
DATE:
DATE:
DATE:
ECTG PROGRAM MGR: [signature] for DATE: 7/13/87

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE	TITLE	DATE

2458T

ATTACHMENT I

List of Evaluators by Element/Plant

Element 310.01

BFN	BLN	SQN	WBN
N/A	N/A	Muir	1. Richards 2. Smith

Element 310.02

BFN	BLN	SQN	WBN
Smith	Smith	Smith	1. McDonald 2. Murphy

Element 310.03

BFN	BLN	SQN	WBN
Smith	Smith	Smith	Smith

Element 310.04

BFN	BLN	SQN	WBN
N/A	N/A	N/A	Smith

TVA EMPLOYEE CONCERNS
SPECIAL PROGRAM

REPORT NUMBER: 31300

REPORT TYPE: Subcategory

REVISION NUMBER: 2

TITLE: Miscellaneous

PAGE 1 OF 50

REASON FOR REVISION:

Reformat to conform incorporation with revision 4 of ECTG Program Manual, SRP comments, and inclusion of final corrective action plans. Revision 1

Incorporate SRP comments Revision 2

PREPARATION

PREPARED BY: W. T. Elliott

Robert J. Atkinson/Jon Richards/W. T. Elliott — SIGNATURE — 7/29/87 DATE

(Note: Evaluator List in Attachment I)

REVIEWS

PEER: — SIGNATURE — 7/29/87 DATE

TAS: 8/7/87 James E Worthy II — SIGNATURE — 8/7/87 DATE

CONCURRENCES

		CEG-H: W. P. Hagan	8-5-87
SIGNATURE	DATE	SRP: Jimmie W Hayes SIGNATURE*	8-7-87 DATE

APPROVED BY: W. L. Burnett — ECSP MANAGER — 8/7/87 DATE

NA — MANAGER OF NUCLEAR POWER CONCURRENCE (FINAL REPORT ONLY) — DATE

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

3752T

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

MISCELLANEOUS

Subcategory Report 31300

Executive Summary

I. SUMMARY OF ISSUES

The Miscellaneous Subcategory is comprised of 56 employee concerns that raise 52 issues concerning the environment, employee safety, housekeeping, plant procedures, and suggestions for plant improvement.

Fifteen issues were found to be not factually accurate. Five issues were factually accurate but did not require corrective action. Six issues were factually accurate but the problems were being addressed before the employee concerns program. Twenty-three issues were factual and presented problems for which corrective action either has been or is being taken as a result of the employee concerns program. Three issues did not present a problem in themselves; however, as a result of the employee concerns evaluation, a problem was discovered for which corrective action was initiated.

II. SUMMARY OF FINDINGS

Several conditions were found to be in violation of a design, construction, or operating requirement. Each of these conditions, called specific deficiencies, was noted as requiring short-term corrective actions:

1. A deficiency was noted at Watts Bar Nuclear Site (WBN) in the labeling of cleaning fluids approved for use on critical systems, structures, and components (CSSC).

2. At WBN, MRs addressing the repair of defective level indicators could not be found, and an unauthorized procedure was used which resulted in a fuel oil spill.

3. Deficiencies were noted at WBN, Sequoyah Nuclear Plant (SQN), and Browns Ferry Nuclear Plant (BFN) regarding inadequate construction and repair procedures for concrete repair and possible irregularities which may have resulted from these inadequacies.

4. At BFN, nonmetallic (fiberglass) insulation had been installed contrary to the requirements of a regulatory guide.

5. At WBN, management's failure to respond to employee suggestions was a problem.

III. SUMMARY OF COLLECTIVE SIGNIFICANCE

A collective assessment of the findings led to the identification of two subcategory-level findings which reflected adversely on management effectiveness:

1. There has been a lack of corporate control over the implementation of Design/Construction Standards and requirements into operations activities at BFN and SQN relative to concrete and grout repairs.

2. There have been instances of inadequate corrective action response and follow through by line managers at WBN and BFN.

IV. SUMMARY OF ROOT CAUSES

A review and analysis of the causes for the subcategory taken collectively pointed to five significant causes as follows: |R2

1. Adequate systems, processes, or administrative controls are lacking to ensure that commitments are reflected in procedures and processes for CSSC cleaning solvents and concrete/grout repairs (WBN, SQN, BFN).

2. There are inadequate communications between functional groups with respect to concrete and grout activities (WBN, SQN, BFN).

3. Procedures for fuel oil transfer operations and concrete repairs are incomplete or fail to incorporate all technical requirements (WBN).

4. There have been errors in judgement by qualified personnel during fuel oil transfer evolutions (WBN).

5. Inadequate communication within functional groups regarding employee suggestions (WBN). |R2

V. SUMMARY OF CORRECTIVE ACTION

With respect to CSSC cleaning solvents, DNE corporate management and WBN line management committed to revising the applicable Division Procedure and site instructions to require positive identification of all containers which hold approved CSSC cleaning solvents.

To preclude recurrences of fuel oil spills, WBN line management added a precaution to a System Operating Instruction to manually determine tank fuel oil levels before conducting fuel oil transfers. WBN line management also committed to forming a task group to evaluate the adequacy of the WBN computerized data systems pertaining to maintenance activities.

WBN and SQN line managers evaluated reports of improper concrete repairs and tested repairs for compliance with appropriate procedures. Any discrepancies were reworked to bring the repairs into compliance with the correct requirements. Also at WBN and SQN, the procedures themselves were examined and brought into compliance with the applicable construction requirements.

BFN line managers committed to determining that non-metallic insulation installed on CSSC stainless steel piping meets requirements of Regulatory Guide 1.36 and to replacing with qualified insulation as required.

WBN line managers committed to addressing problems associated with the Employee Suggestions Program. Specific actions were taken on suggestions which had been inadequately addressed. Also, memorandums will be sent by the plant manager to the site director and section supervisors to identify the lack of proper tracking and followup on commitments.

Cognizant line managers have provided specific corrective action plans for the two subcategory-level findings. For the first finding, DNE has initiated a Specification Improvement Program (SIP) that will involve the development of master specifications and project-specific Engineering Requirements (ER) specifications from the existing general construction specifications. Second, all conditions adverse to quality are now covered under NQAM Generic Procedure Part I Section 2.16. This new procedure and all lower tiered implementing documents address the identification, documentation, evaluation, correction, and reporting of conditions adverse to quality for all TVA's nuclear facilities. |R2

1.0 CHARACTERIZATION OF ISSUES

1.1 Introduction

The Miscellaneous Subcategory is comprised of 56 employee concerns that raise 52 issues concerning environment, employee safety, housekeeping, plant procedures, and suggestions for plant improvement.

1.2 Description of Issues

The issues have been combined into higher-order groups, called elements, to aid in identifying and evaluating related issues. In this section of the report, each element is presented with a brief overview of its issues. The employee concern numbers for each issue are listed under each issue title.

1.2.1 Element 313.01 - Personal Safety (Working Alone)

Issue 313.01-1 - Personnel Working Alone

IN-85-509-001

This issue relates to individual maintenance workers working alone. The concerned individual (CI) believes that Watts Bar Nuclear Plant (WBN) should institute a policy to send at least two maintenance people on a job so that in case of an injury to one of the workers, the other person could get help.

1.2.2 Element 313.02 - Personal Safety (Hardware)

Issue 313.02-1 - Burned Out Lights in Stairwell

RMM-85-001
RMM-85-002

This issue deals with personal safety at Sequoyah Nuclear Plant (SQN). The CI made two employee concerns statements about the burned out lights in a stairwell of the Office and Power Stores (O&PS) Building.

Issue 313.02-2 - Difficulty in Opening Door

IN-86-197-001

At WBN a CI was worried about the adequacy of the door knob on door A-62. There is a pressure differential across this door and the present round knob is difficult to grasp and hold while trying to open the door.

1.2.3 Element 313.03 - Housekeeping

Issue 313.03-1 - Vacuum Cleaners Too Large

SQN-86-001-001

The CI at SQN indicated that, due to the bulk of available vacuum cleaners, too much time is lost in cleaning small spaces.

Issue 313.03-2 - Containment Not Clean Enough for Fuel Loading

IN-85-675-001

The CI contends that WBN unit 1 containment was not ready for fuel loading due to the containment being filthy.

Issue 313.03-3 - Unit 1 Auxiliary Building and Containment Not Clean

IN-85-675-001
IN-85-758-002

The CIs were concerned about cleanliness of the WBN Auxiliary Building and containment facility.

Issue 313.03-4 - Cleaning Fluid Containers Not Labeled

IN-86-221-004

The CI indicated that some craft personnel were using cleaning fluids in the WBN unit 1 containment that were not labeled "CSSC Approved" (for use on critical systems, structures, and components).

Issue 313.03-5 - Fire Hose Not Properly Stowed

WBN-0170

The CI at WBN alleged that a fire hose was pulled from a rack and piled on top of a containment purge isolation valve.

1.2.4 Element 313.04 - Environmental

Issue 313.04-1 - Hydrazine Flushed Into Holding Pond

IN-85-940-X01
IN-86-190-004

The CIs at WBN expressed concern about the flushing of hydrazine from piping systems and the potential for environmental and personal hazards.

Issue 313.04-2 - Fuel Oil Spill Due to Inaccurate Level Indication

IN-86-055-001
IN-86-018-001

The CI at WBN alleged that fuel oil that was spilled because of inaccurate level indications was not completely cleaned up.

Issue 313.04-3 - Fuel Oil Spill Due to Operator Error

IN-86-055-001
IN-86-018-001

The CI at WBN alleged that fuel oil that was spilled due to operator error and procedural violation was not completely cleaned up.

Issue 313.04-4 - Leak in Raw Water Discharge Piping

RII-86-A-0022

The CI alleged that the piping routing the raw water from the Turbine Building sump at SQN has a large leak to open ground.

Issue 313.04-5 - Burial of Toxic Substance

RII-86-A-0100

The CI alleges that a jelly-like substance used to finish concrete was buried in a pit on site at SQN.

Issue 313.04-6 - Use of Fuel Oil to Burn Wood

RII-86-A-0100

The CI alleged that fuel oil was being used to burn wood left over from construction of the cooling towers at SQN.

1.2.5 Element 313.05 - Sewage Treatment

Issue 313.05-1 - Raw Sewage Draining From Manhole Covers

IN-85-136-001
IN-85-307-001
IN-85-753-001

This issue addresses a recurring problem at WBN where raw sewage overflows from manhole covers. One CI is also concerned about whether the filter beds are working and whether the holding pond is getting polluted.

Issue 313.05-2 - Inadequate Operation of Raw Water Chlorination System

IN-85-136-002

The CI at WBN alleges that the raw water chlorination system at the sewage treatment plant does not work.

Issue 313.05-3 - Dumping of Raw Sewage Into Tennessee River

WI-85-064-007

The CI had been told that WBN had dumped raw sewage into the Tennessee River for a period of approximately six weeks.

1.2.6 Element 313.06 - Questionable Concrete Repair (Grout)

Issue 313.06-1 - Use of Laborers Instead of Cement Masons

IN-86-217-001

The CI alleged that nonqualified concrete finishers were used at WBN to perform "dry packing." Dry packing is a way in which grout is consolidated by tamping.

Issue 313.06-2 - Use of Grout for Concrete Repairs

IN-86-221-002
IN-86-221-003

The issue consists of allegations that grout was used instead of concrete to repair a floor slab in the WBN Turbine Building and that the concrete/grout used to install sleeves in the wall penetrations was improperly prepared and the forms were not installed correctly.

1.2.7 Element 313.07 - SQN Insulation

Issue 313.07-1 - Improper Use of Fiberglass Insulation

SQN-85-001-002

The CI at SQN alleges that there is fiberglass insulation at the bottom of each steam line next to the steam generator. The CI had been told that there should only be mirror insulation inside containment.

1.2.8 Element 313.08 - BFN High Pressure Coolant Injection (HPCI) System

Issue 313.08-1 - High Pressure Coolant Injection System Unreliable

BFN-86-019-001

The CI expressed concern about the ability of the High Pressure Coolant Injection (HPCI) system at Browns Ferry Nuclear Power Plant (BFN) to operate properly. The CI had been directly involved in several instances where the turbine/pump did not operate satisfactorily during HPCI operations.

1.2.9 Element 313.09 - Plant Improvements/Suggestions

This element includes 31 issues, 30 of which were submitted in accordance with WBN Standard Practice WB 2.1.10, "Employee Suggestion Program." One was submitted to the Employee Response Team (ERT). Most of the issues are suggestions for plant improvements in such areas as safety, radiological control, efficiency, and convenience.

Issue 313.09-1 - Install Wall Mounted Telephones

WBN-MDM-2

Issue 313.09-2 - Assign Designated Parking Space for Employees Who Do Not Use Sick Leave

WBN-0040

Issue 313.09-3 - Not Enough Room For Complaints on Forms

WBN-0057

Issue-313.09-4 - Paving Additional Area by Power Stores

WBN-0131

Issue-313.09-5 - Install Floor Drain

WBN-0134

Issue 313.09-6 - Paint Bridge Crane and Reverse Osmosis Room Floor For Easier Decontamination

WBN-0228
WBN-0229

Issue 313.09-7 - Install Emergency Lighting In Restroom

WBN-0286PS

Issue 313.09-08 - Fabricate Test Hoses and Leave at Test Site in Locked Box

WBN-85-008

Issue 313.09-9 - Need For Additional Vehicles

WBN-0063

Issue 313.09-10 - Need Plant Drawing of Service Outlets Permanently Posted

WBN-0127

Issue 313.09-11 - Better Control of TLD and Dosimeter Badges

WBN-0226

Issue 313.09-12 - Placement of Plexiglass Cover Around Crane Mast

WBN-0233

Issue 313.09-13 - Change Guard Shack Location to Alleviate Traffic Problems

WBN-0246IS

Issue 313.09-14 - Issue Technical Instruction Listing Instruments Needing Calibration

WBN-239IS

Issue 313.09-15 - Engineers Should Order Spare Parts

WBN-244NS

Issue 313.09-16 - Relocate Oil Gauge on RCPs

WBN-0251

Issue 313.09-17 - Confidentiality of Employee Concerns Program

WBN-0059

Issue 313.09-18 - Enlarge Window at Tool Issue Room

WBN-0211

Issue 313.09-19 - Install Permanent Test Connections

WBN-0220
WBN-85-008

Issue 313.09-20 - Paint Area Indicating Placement of Temporary Differential Pressure Transmitters

WBN-85-008

Issue 313.09-21 - Allow Access to Cables in Raceway

WBN-85-008

Issue 313.09-22 - Paint Stencils on Stretcher Blankets

WBN-85-004

Issue 313.09-23 - Fabricate Four-wheel Cart to Carry Welding Equipment

WBN-0192

Issue 313.09-24 -Steam Generator Floor Grating Needs to be Extended

IN-85-872-001

Issue 313.09-25 - Assign Responsibility for Filter Paper Change to Health Physics

WBN-240

Issue 313.09-26 - Provide Cameras and Photos to Assist in Work in High Radiation Areas

WBN-0135
WBN-0290

Issue 313.09-27 - Need to Install Clamp to Hold Ramp

WBN-MDM-3

Issue 313.09-28 - Need Shields to Cover Electrical Panels

WBN-245

Issue 313.09-29 - Install Drain on Heating and Cooling Coils

WBN-0026

Issue 313.09-30 - Recommendation to Reduce Door Maintenance

WBN-85-002PI

Issue 313.09-31 - Relocate Control Box to Access Room

WBN-0295

To locate the issue in which a particular concern is evaluated, please consult the following attachments:

Attachment A, Subcategory Summary Table

Attachment B, List of Concerns by Element/Issue

2.0 EVALUATION PROCESS

2.1 General Methodology

The evaluation of this subcategory was conducted according to the Evaluation Plan for the Employee Concerns Task Group and the Evaluation Plan for the Operations Group. The concern case files were reviewed. Source documents were researched and interviews conducted in order to identify the requirements and criteria which applied to the issues raised by the concerns. The issues were evaluated against the identified requirements and criteria to determine findings. A collective significance analysis was conducted; causes were indicated for negative findings; and corrective action for the negative findings was initiated or determined to have already been initiated.

2.2 Specific Methodology

The evaluators reviewed applicable sections from the following baseline requirements documents: Final Safety Analysis Reports (FSARs) at WBN, SQN, and BFN; WBN, SQN, and BFN Technical Specifications; TVA Topical Report; the TVA Nuclear Quality Assurance Manual (NQAM); and TVA General Construction Specification (G-Specification).

To ensure consistency and implementation of the requirements found in these documents, the evaluators reviewed applicable Standard Practices, Administrative Instructions (AI), Surveillance Instructions (SI), Technical Instructions (TI), Section Instruction Letters (SIL) and procedures, Modification and Addition Instructions (M&AI), Field Change Requests (FCRs), workplans, data packages, and records. In addition, the evaluators reviewed files which had been expurgated by the NRC, NSRS staff reports, QTC reports, NRC Regulatory Guidelines, Nonconformance Reports at SQN, Environment SIs at WBN, Browns Ferry Scram Reports, WBN Health and Safety Committee meeting minutes, and SQN Employee Response Team (ERT) reports.

Federal and local environmental manuals and regulations were reviewed. These were the Environmental Protection Manual, Resource Conservation and Recovery Act of 1976, Tennessee Department of Health and Environment Rule 1200-1-11, the Hamilton County Air Pollution Control Regulations, WBN and SQN Hazard Control Instructions (HCI), National Pollutant Discharge Elimination System (NPDES) permits at WBN, and Institute of Nuclear Power Operations (INPO) Good Practices. Additionally, Olin Chemical Company's guidelines for the storage and handling of aqueous hydrazine solution were reviewed at WBN.

Informal interviews were conducted with cognizant personnel when required either to verify document-based findings or to provide nondocument-based evaluation input. Interviews were conducted with personnel in ONP; Instrument Maintenance Sections at WBN, SQN and BFN; Division of Nuclear Engineering (DNE); Division of Nuclear Services and Chemical Engineering Section at WBN; supervisors and responsible personnel of the mechanical, chemical, environmental, fire protection, safety engineering and crafts departments at the TVA sites. The Hazardous Material control coordinator at WBN was interviewed, as well as QA Engineers and QC personnel at WBN.

Conclusion

This issue identified a problem, but corrective action had been taken prior to this evaluation. |R2

Issue 313.02-2 - Difficulty in Opening Door (WBN)

The issue regarding difficulty in opening door A-62 due to differential pressure across the door had been evaluated previously and documented by a completed Industrial Safety Engineering Staff Investigation Report (ISESIR) for concern IN-86-197-001. The issue was substantiated, but did not constitute a problem requiring corrective action. The ISESIR stated that two signs were posted on the approach side of the door addressing the situation. One sign is a caution warning that the door is subject to jumping open (positive pressure differential); the second sign states that, if the door is difficult to open, the shift engineer's office (Ext. 8213) should be called to request the operator to balance the pressure.

Employee concern IN-86-197-001 also had a suggestion to replace the currently installed round door knob with another type of grasping device. It was determined this would not necessarily enhance the safe operation of the door. The results of the current evaluation indicate that the signs currently posted adequately warn and inform individuals of the hazards associated with the operation of this door, and of the action to take to reduce exposure to the hazards.

An investigation was conducted to determine why no response was made to a previous suggestion regarding door A-62. A response to this suggestion was found from the Industrial Safety Supervisor on April 2, 1985.

The Industrial Safety Supervisor stated that, because these were fire-rated doors and because the current policy of balancing the pressure would eliminate any problem, there would not be any need for additional corrective action. The CI was not aware that the suggestion had been acted upon.

Conclusion

The issue was verified as factually accurate, but did not constitute a problem requiring corrective action.

3.0 FINDINGS

Note: There is only one safety-related issue (313.03-4) that requires corrective action in Subcategory Report 31300. Therefore, the findings section will not repeatedly comment on the nonsafety-related nature of the remaining issues. Generic applicability statements are included only for concerns which are classified as being potentially safety-related or safety-significant as denoted on Attachment A.

3.1 Element 313.01 - Personal Safety (Working Alone) (WBN)

Issue 313.01-1 - Personnel Working Alone

The CI believes that maintenance workers should not work alone, for safety reasons. It was determined that both the HCIs and AIs adequately address personnel safety during the performance of maintenance. Those procedures state that each job will be reviewed before starting work by the responsible first-line foreman, with assistance from other plant personnel as needed. Individual plant workers were interviewed and all understood that during the performance of any job, whether alone or not, if a safety hazard exists, they should take immediate action to protect themselves and report the hazard to their supervisors. It is ultimately up to the individual employee to determine whether working alone on a job is safe or not. |R2

Conclusion

This issue was not verified as factually accurate.

3.2 Element 313.02 - Personal Safety (Hardware)

Issue 313.02-1 - Burned Out Lights in Stairwell (SQN)

The CI is concerned with a safety hazard associated with burned out lights in the south stairwell of the Office and Power Stores (O&PS) Building. The CI filed an employee concern, RMM-85-001, on August 14, 1985, and MR-A-116723 was written that day to repair the lights.

The lighting was repaired the next day and the CI was informed of the repairs. One month later the CI issued a second employee concern, RMM-85-002, on September 17, 1985, concerning the same problem. The CI also requested a check on the preventive maintenance (PM) program for lighting. The lighting was later repaired.

Both of these concerns were validated by line management and a new general building maintenance unit responsible for responding to these problems has been created.

3.3 Element 313.03 - Housekeeping

Issue 313.03-1 - Vacuum Cleaners Too Large (SQN)

The issue here is a problem with the size of vacuum cleaners used to clean small areas. The CI had indicated that too much time was spent in trying to maneuver the large vacuums into small places. Four vacuums of a lightweight backpack type for use in congested areas are available to be checked out from the tool room. Unfortunately, these lightweight vacuums are sometimes checked out for long periods of time and the CI may have been unaware of their availability. However, the Building Services Supervisor has realized that this was a problem and has initiated a purchase request, which was approved, for the purchase of four more of the lightweight vacuums.

Conclusion

The issue revealed a problem, but corrective action had been initiated before this evaluation was undertaken.

Issue 313.03-2 - Containment Not Clean Enough for Fuel Loading (WBN)

Issue 313.03-3 - Unit 1 Auxiliary Building and Containment Not Clean (WBN)

These two issues associated with cleanliness in the WBN unit 1 Auxiliary Building and Containment were not validated. It was thought by the two CIs that cleanliness was not what it was supposed to be. Also, one CI expressed doubts that the unit 1 containment was not only dirty, but did not meet the requirements for fuel load.

WBN housekeeping procedures adequately implement NRC regulatory requirements. NSRS Investigation Reports IN-85-675-001 and IN-85-758-002 found that the containment housekeeping in March 1985 was satisfactory to fulfill fuel load requirements. The evaluator's cleanliness inspection of the Annulus Area, Turbine, Control, Auxiliary, Reactor, and Diesel Generator Buildings found only minor discrepancies. Existing housekeeping procedures adequately identify and correct cleanliness deficiencies.

This report concurs with the NSRS findings for these issues. However, the Operations CEG did find housekeeping discrepancies in the Diesel Generator Building and electrical manholes at WBN as documented in Subcategory Reports 30100 and 30400, respectively.

Conclusion

These issues were not verified to be factually accurate.

Issue 313.03-4 - Cleaning Fluid Containers Not Labeled

WBN

The employee concern raising this issue states that craft personnel are using cleaners which were not labeled "CSSC approved" in WBN unit 1 containment. This is a safety-related issue. NSRS report, I-85-484-WBN, had found the concern to be valid in that it had observed that no properly labeled cleaning fluid container was available in the plant. There also was no approved plant instruction or Section Instruction Letter (SIL) to control the labeling process. However, when a section is in need of more cleaning fluid, the respective section supervisor signs the request, Form TVA 575, that indicates that the cleaner is or is not approved for CSSC use. ECTG concurs with the NSRS report and since WBN has not properly addressed this issue, it is still a problem. Closure of the corrective action for this problem is being tracked by CATD 31303-WBN-01.

The controlling procedure at Watts Bar concerning the use of CSSC approved cleaning fluids is Watts Bar TI-35. This document lists approved cleaning fluids but does not establish a procedural requirement for labels on CSSC approved cleaning fluids. NSRS report IN-85-484-WBN adequately addressed this issue and recommended that WBN "consider the need for a plant instruction which would require positive identification of containers which hold approved CSSC cleaning solvents and would tie together TI-35 and the SILs." This recommendation was not adequately implemented by issuance of Standard Practice WB 9.47. This instruction only addressed the personal hazards involved with the use of hazardous chemicals and did not require positive identification of containers which hold CSSC approved cleaning solvents and tie together TI-35 and the SILs.

SQN

An evaluation of the cleaning solvents issue conducted at SQN was not validated. It was found that SQN standard practice SQN-181 adequately addresses the problems of labeling and relabeling of containers which hold hazardous materials. An interview with a cognizant hazardous materials control coordinator showed that the hazardous material control program at SQN is properly implementing the requirements of the Standard Practice.

BFN and BLN

The issue regarding labeling of cleaning solvents was evaluated at BFN and BLN and was not substantiated at either site. Applicable hazardous materials control instructions were found to adequately address the labeling and relabeling of containers holding approved CSSC cleaning solvents.

Interviews with cognizant personnel showed that each site's hazardous materials control program is properly controlling the labeling of chemicals, including cleaning solvents.

Conclusion

This issue was verified as factual at WBN and corrective action is being taken as a result of the evaluation. This issue was not verified as factually accurate at SQN, BFN, and BLN.

Issue 313.03-5 - Fire Hose Not Properly Stowed (WBN)

A walkdown of the annulus firehose stations found all firehoses to be properly stored in their racks. A review of previously performed firehose inspection packages revealed that no firehose stations in the annulus were found improperly stored.

Conclusion

The issue was not verified as factually accurate.

Generic Applicability

This concern (WBN-0170) was not substantiated at the site of the concern (WBN). No other site evaluations are necessary.

3.4 Element 313.04 - Environmental

Issue 313.04-1 - Hydrazine Flushed Into Holding Pond (WBN)

Two concerns at WBN regarding the disposition of hydrazine used to flush plant piping systems were not validated. The CIs were worried about environmental effects as well as personal safety. Neither of these two concerns was validated. The hydrazine in question was flushed into the site holding pond. This is a standard practice recommended by Olin Chemical Company, the supplier of the hydrazine.

Hydrazine is very reactive when placed in an environment which has a high oxygen content and exposure to sunlight, such as an open pond. The hydrazine is held in the pond until it decomposes into harmless constituents. The result is that relatively small amounts of hydrazine are discharged to the site holding pond and less than detectable levels are discharged from the pond to the environment. This method of discharging water containing hydrazine in the chemical ponds has been approved by the Environment Protection Agency.

Conclusion

This issue was not verified as factually accurate.

Issue 313.04-2 - Fuel Oil Spill Due to Inaccurate Level Indication (WBN)

Issue 313.04-3 - Fuel Oil Spill Due to Operator Error (WBN)

At WBN, two employee concerns raise issues, which were determined factually accurate and requiring corrective action, regarding two oil spills from the fifth auxiliary diesel generator unit (ADGU), seven-day storage tank, which occurred on February 21, and September 23, 1985. On these dates, fuel oil was being transferred to the fifth ADGU seven-day storage tank. The CIs allege that the spills were not completely cleaned up.

The operator at the ADGU was reassigned to another work location by the unit operator during the February transfer operation. The unit operator assumed by the indications that there was sufficient capacity remaining in the seven-day tank for off-loading of the remaining fuel oil; however, the level indicator understated the actual level of oil in the tank, which caused the spill.

Fuel oil began to overflow from the building to the yard drainage systems, which discharge into the yard holding pond. The fuel oil was subsequently cleaned up in accordance with state and National Pollutant Discharge Elimination System (NPDES) permit guidelines without incident.

In the September spill, fuel oil was being transferred from the seven-day tank, 1-AA, to the seven-day OC-S tank on the fifth diesel. There is no established procedure for this transfer operation. The unit operator indicated that the level indicator on the OC-S tank was reading incorrectly, which had a direct influence on the spill. The pathway of oil from the paved road was to a sewer drain, which discharged into the yard holding pond. Again, as in the February spill, cleanup was conducted according to state and NPDES permits without any adverse effects.

Errors by the operators and inaccurate level indicators were causes for the accidents. Maintenance Requests (MR) written to correct the level indicators were issued but could not be found. The current evaluation could find no indication that the level indicators have been fixed or that procedures have been modified to prevent future spills. CATD 31304-WBN-01 was issued to inform management of this procedural deficiency. CATD 31304-WBN-02 was written to inform management that these MRs could not be located.

Conclusion

These issues were verified as factually accurate and constitute problems requiring corrective action to prevent recurrence.

Issue 313.04-4 - Leak in Raw Water Discharge Piping (SQN)

The CI was concerned that the piping that carries raw water from the Turbine Building sump had developed a large leak to open ground and constituted an environmental problem. Physical observation of the pipe revealed a leak to the open ground. The Sequoyah maintenance section is aware of the leak and initiated Design Change Request (DCR) 2243 to replace sump discharge piping and valves from the Turbine Building to the point where water is discharged to the ponds and river. It was determined that this maintenance activity will start after the outage. The NPDES noncompliance report did not indicate any noncompliance associated with the leaking pipe. The pipe does need to be repaired, but it does not constitute an environmental problem.

Conclusion

The issue was verified as factually accurate, but does not constitute a problem requiring corrective action.

Issue 313.04-5 - Burial of Toxic Substance (SQN)

The CI was concerned about a toxic jelly-like substance being buried on site. The jelly-like substance that was mentioned by the concerned individual was buried in a pit on site. An interview with a cognizant construction person indicated that the jelly-like substance (acrylamide) is composed of toxic ingredients. When mixed, the toxic ingredients become inert and do not pose any further hazard. The inert gel's burial on site was in accordance with all pertinent federal statutes.

Conclusion

This issue was verified as factual, but does constitute a problem requiring corrective action.

Issue 313.04-6 - Use of Fuel Oil to Burn Wood (SQN)

The CI alleging that fuel oil was used to ignite wood left over from construction of the cooling towers was factual but did not constitute a problem requiring corrective action. The plant instruction SQA-120 outlines the prerequisites, procedures, permits, and reporting requirements for all open burning conducted in areas under nuclear power jurisdiction at SQN. Also, the Construction Policy Manual provides guidance in controlling air quality from open burning in accordance with local, state, and federal regulations. The use of fuel oil to ignite a fire is allowed provided that the fuel oil is not contaminated by any material which could have a noxious or otherwise hazardous effect on the environment. The fuel oil used to ignite the leftover lumber met all the requirements of SQA-120 and the Construction Policy Manual.

Conclusion

This issue was verified as factually accurate, but does not constitute a problem requiring corrective action.

3.5 Element 313.05 - Sewage Treatment (WBN)

Issue 313.05-1 - Raw Sewage Draining From Manhole Covers

This issue addresses the problems of sewage outflow from manhole covers and was substantiated. It was determined that during the WBN construction phase, the sewage processing capacity and drainage systems occasionally were strained to the point where sewage would overflow from manhole covers. Another problem which led to the outflow of raw sewage was the clogging of the grinder pumps with foreign material. These problems have been alleviated by the expansion and upgrading of the present WBN sewer system. Equipment failures have not been totally eliminated, however, and spare pumps are now stocked in Power Stores to minimize the effects of failure.

During the course of the evaluation, it was also determined that raw sewage has drained several times recently from the manhole in front of the Field Services Building. Facility Maintenance most recently investigated a complaint of sewage overflowing from the manhole on January 17, 1987, and found that foreign material (e.g., rubber gloves, cloth towels, pens/pencils, and sanitary napkins) had clogged the sewage lines and pumps. Facility Maintenance has added a monthly inspection of the manhole to its maintenance inspections

and is investigating adding a level indicator to the manhole sump. These actions were considered by the Operations CEG to be adequate to respond to the problems, after the fact. However, since the problems appeared to be of a recurring nature, it was thought that DNE should initiate a review to determine if total resolution is viable at this time. CATD 31305-WBN-01 was issued to address this discrepancy.

Conclusion

This issue was not safety-related, but was verified as factual and presents a problem for which corrective action is being taken as a result of this evaluation.

Issue 313.05-2 - Inadequate Operation of Raw Water Chlorination System

It was determined that there have been problems with this system, but repairs have been made which have improved the system performance before the evaluation of this issue was undertaken. Since June 1984, the Total Residual Chlorine (TRC) has been monitored. Despite problems with the system, adequate chlorine has been supplied to the raw water system.

The results of this monitoring at the discharge point are that the TRC analysis is within the criteria of NPDES permit and the Federal 401 certification.

Conclusion

This issue identified a problem, but corrective action was initiated before this evaluation.

Issue 313.05-3 - Dumping of Raw Sewage Into Tennessee River

This issue allegating that TVA dumped raw sewage into the Tennessee River for approximately six (6) weeks was not factually accurate. There is no report of TVA dumping raw sewage into the Tennessee River, but in May 1979 it was found that a portion of the sand filter effluent was bypassing the normal discharge route of the sewage treatment system. This bypassing was prohibited by NPDES and was curtailed upon its discovery. It was suspected that the system had been bypassed for approximately six weeks. The discharge of the bypass is directed to the site holding pond, not to the river, as the CI claimed. The system was chlorinated to bring it into NPDES specifications and a monitoring system was implemented to prevent any further abnormal discharges.

Conclusion

This issue was not verified as factually accurate.

3.6 Element 313.06 - Questionable Concrete Repair (Grout)

Issue 313.06-1 - Use of Laborers Instead of Cement Masons (WBN)

This issue allegating that there were no certified concrete finishers (cement masons) within ONP at WBN and that nonqualified laborers were used by the Modifications Mechanical Section to perform "dry packing" of grout was factual but does not constitute a problem requiring corrective action. Dry packing packing is a procedure used to consolidate a particular type of grout. The CI believed that a cement mason or a person qualified to perform dry packing was necessary to perform any repair work.

Subsequent investigation has determined that there are no requirements that a worker be certified to do dry packing for finish work. All of the work performed had been inspected and there were no rejections. NSRS Report I-85-453-WBN validates this concern, but since the repairs were cosmetic and did not affect structural integrity, they did not recommend any corrective actions. ECTG concurs with the NSRS report findings and conclusions.

Conclusion

This issue was verified as factual, but it does not constitute a problem requiring corrective action.

Generic Applicability

This concern was not substantiated for the site of the concern (WBN). No other site evaluations are necessary.

Issue 313.06-2 - Use of Grout for Concrete Repairs

WBN

Two concerns raise the issue of the use of grout instead of concrete for repairs. In one concern, grout was used to fill in a substantial hole in the floor of a stairwell in the WBN Turbine Building. The hole was large enough to require filling with concrete to ensure it would be in compliance with Construction Specification G-34; however, grout was used. A sample of the grout was tested to determine if the grouted area was structurally sound. This test determined that the grout was adequately strong and would not need to be replaced.

The other concern is associated with the use of grout to install sleeves in wall penetrations. This CI also stated that the forms used for the work were improperly constructed. As far as the construction of the forms is concerned, the forms had slipped, allowing a slight sagging of grout in one area and chambers were not used above a doorway. A cognizant Mechanical Engineer from ONP Modifications Unit, when interviewed, was aware of the problem, and since structural integrity was not affected, these problems were not considered valid. The use of grout instead of cement to install the sleeves in the wall penetrations is not specifically disallowed. The installations were performed prior to the issuance of M&AI-19, "Repair of Concrete." Test samples of the grout showed that they met compressibility requirements. The structural integrity of the grout used was acceptable, however, inspection of the sleeves revealed that expansion material that should have been installed with the sleeves was not installed. This problem, requiring corrective action, which was not identified by the two concerns, was revealed during the ECTG evaluation of this issue raised by the concerns. The areas involved were chipped out and replaced. CATD 31306-WBN-01 was issued concerning the failure of ONP personnel to properly install expansion material in through-wall penetrations in the Turbine Building. The CATD also requests an inspection of all work done prior to the incorporation of M&AI-19 to ensure compliance with M&AI-19.

SQN

The concerns identified two specific concrete areas in the WBN Turbine Building that were not properly repaired. These areas were not determined to be a concern at SQN.

However, a general evaluation was performed of other civil areas, including backfill installation, structural concrete placement, and grouting, since there was a potential of similar problems existing at SQN. Problems requiring corrective actions, which were not identified by the two concerns, were revealed during the ECTG evaluation of this issue raised by the concerns.

It was determined that SQN's Maintenance and Addition Instruction (M&AI)-17 did not incorporate proper procedures for the mixing of grout. Previous repair work, even if not covered by now existing instructions, was fully documented and FCRs were issued when necessary to ensure compliance to appropriate regulations (G-2 and G-34). CATD 31306-SQN-01 illustrates the discrepancies with M&AI-17.

Further problems with M&AI-17 were discovered. In one instance a concrete surface was wet sacked for 12 hours prior to concrete replacement. Even though it was determined not to be detrimental to bonding in this case, it could have prevented superior bonding of the surfaces. In another case where surface wetting was required, the wetting time was reduced or waived contrary to Construction Specifications G-34 and G-51. Additionally, in this case the core-drilled holes were not scarified to enhance bonding. CATD 31306-SQN-02 was written concerning the quality of grout which was installed prior to incorporation of changes in M&AI-17. CATD 31306-SQN-03 regards the wet sacking of concrete which could have been detrimental to superior bonding. And, CATD 31306-SQN-04 details problems with workplans which used M&AI-17 as the controlling document. The work performed was in reality controlled by G-34 which is not referenced in M&AI-17.

BFN

The issue was evaluated and not found to be a problem at BFN. However, problems requiring corrective actions which were not identified by the two concerns, were revealed during the ECTG evaluation of this issue raised by the concerns. There were no indications that grout had been used in the Turbine Building or safety-related structures where replacement concrete would have been required. It was determined that repair work relating to concrete had been minimum and primarily of a cosmetic nature. There were problems in reconciling M&AI-34 with the requirements of G-2 and G-51. This discrepancy has been documented by a BFN CAR and is still open at the time of this report. CATD 31306-BFN-01 was written to track closure of this discrepancy. Procedures applicable to structural concrete placement, backfill, grouted anchor installation, grouting, and dry packing of base plates had not been developed. A deviation had previously noted that ONP had failed to coordinate and establish the requirements of General Construction Specifications that apply to modifications and nonroutine maintenance activities. CATD 31306-BFN-02 was issued regarding this deviation.

Conclusion

This issue was not verified as factually accurate, but as a result of this evaluation, several problems requiring corrective action, which were not identified by an employee concern, were identified at WBN, SQN, and BFN.

3.7 Element 313.07 - Sequoyah Nuclear Plant (SQN) Insulation

Issue 313.07-1 - Improper Use of Fiberglass Insulation

SQN

The issue regarding fiberglass insulation at the bottom of the steam line next to the steam generator was found to have been previously evaluated by NSRS. An inspection by NSRS and Plant Metallurgical Engineering personnel found only metallic mirror insulation on the steam lines inside of containment. In response to Concern SQN-85-001-002 (December 1985 timeframe) NSRS Investigation Report SQN-85-001-002 had already addressed the specific concern. It had been determined that the requirements of Regulatory Guide 1.36 were met, and therefore the concern had not been substantiated.

This employee concern regarding SQN insulation (December 1985 timeframe) was not factually accurate. Before this concern, NCR SQN MEB 8411 (November 27, 1984) and NSRS Investigation I-85-106-SQN (September 25 - October 8, 1985) addressed the use of nonmetallic thermal insulation on austenitic stainless steel systems.

NCR SQN MEB 8411 also confirmed the use of foam plastic insulation on small stainless steel piping. This use was not in the area of the subject concern. However, the engineering analysis determined that this instance had no adverse effects on safety systems and recommended that the insulation be used "as is."

At the time of Concern SQN-85-001-002, NCR SQN MEB 8411 and NSRS Investigation Report I-85-106-SQN had adequately addressed the issue of nonmetallic thermal insulation on austenitic stainless steel systems.

ECTG concurs with NSRS Investigation Report SQN-85-001-002 that the concern was not accurate and that the subject of nonmetallic thermal insulation on austenitic stainless steel was adequately addressed in NSRS Investigation Report I-85-106-SQN.

WBN and BLN

The issue regarding fiberglass insulation was evaluated for generic applicability to BLN and WBN. NSRS Investigation Report SQN-85-001-002 was not found to be a generic problem at BLN. BLN is not at the stage of construction which dictates the ordering and installation of Regulatory Guide (RG) 1.36 approved insulation and BLN has already committed to compliance to RG 1.36. SQN-85-001-002 is therefore not valid for BLN.

The recommendations of NSRS Investigative Report I-85-106-SQN had previously been completed at WBN, and WBN was in compliance with RG 1.36. Therefore, Employee Concern SQN-85-001-002 was not factual at WBN.

BFN

NSRS Investigation Report SQN-85-001-002 also addressed the RG 1.36 requirements concern at BFN. This report concurs with the NSRS findings for this issue. This issue is factually accurate for BFN and represents a problem for which corrective action is being taken as a result of the evaluation. NSRS found that BFN has installed nonmetallic insulation which was not ordered or specified by RG 1.36. NSRS made a recommendation that BFN take actions to determine if conformance with RG 1.36 is adequately documented.

Recommendation I-85-106-SQN-03 stated that:

> Because this type of insulation is also used at Browns Ferry Nuclear Plant, NSRS recommends BFN staff conduct a review to determine if their conformance with RG 1.36 is adequately documented.

The current evaluation found through review of procurement requirements and through interviews with Maintenance and Engineering personnel that action on this NSRS recommendation has not been completed. BFN Licensing reviewed the NRC commitments data base and has informed ECTG that BFN has not committed to comply with RG 1.36. However, BFN has issued Standard Practice BF 16.2 to require that nonmetallic insulation used on austenitic stainless steel and purchased after September 18, 1986, be purchased to the requirements of RG 1.36. Although BFN has not committed to RG 1.36, concern SQN-85-001-002 was substantiated at BFN based on the fact that nonmetallic insulation has been installed. CATD 31307-BFN-01 was issued to address this discrepancy.

Conclusion

This issue was verified as not factually accurate at SQN, WBN, BLN. This issue was verified as factual and corrective action is required at BFN.

3.8 Element 313.08 - Inadequate Performance of the High Pressure Coolant Injection (HPCI) System (BFN)

Issue 313.08-1 - High Pressure Coolant Injection System Unreliable

The concern regarding the reliability of the HPCI system had been previously evaluated by NSRS. This report concurs with the NSRS findings.

A review of NSRS Investigative Report I-84-16-BFN written on the HPCI reliability problem, along with a review of supporting documentation, reveals that there was a problem prior to February 1984. The NSRS report initiated DCR 2040 which instituted changes in the location of critical governor control circuits. Also, several other changes were completed to increase the HPCI system reliability.

Scram data from January 1983 and Surveillance Instruction (SI) data collected since January 1984 concerning the HPCI system was evaluated. This data showed that there has only been one instance per plant where the HPCI system failed in 3 years of use. Therefore, due to the demonstrated operational reliability of HPCI since 1984, the issue is no longer factually accurate.

Conclusion

This issue was factually accurate, but corrective action for the problem was completed before the evaluation of this issue was undertaken.

Generic Applicability

This concern was not substantiated at the site of the concern (BFN). Additionally, BFN is the only TVA plant with HPCI.

3.9 Element 313.09 - Plant Improvements/Suggestions

The issues in this element are based on employee suggestions that were previously evaluated and answered by the responsible line managers. Each employee suggestion was addressed by evaluating the adequacy of the initial response as well as the adequacy of the implementation of the response. This evaluation methodology led to the suggestions being sorted into the following five groups:

a. Suggestion was determined not to be feasible and no action was required.

b. Suggestion was adequately addressed by methods other than those suggested.

c. Suggestion was accepted and implemented.

d. Suggestion was accepted and implementation is in progress.

e. Suggestion did not receive an adequate response or was not followed through properly.

All issues were evaluated at WBN, with the exception of issue 313.09-26, which was also evaluated at SQN.

a. Not Feasible

The following suggestions were determined to be not feasible. ECTG concurs with the evaluation of these suggestions by responsible personnel.

Issue 313.09-1 - Install Wall Mounted Telephones

Installing wall phones in the TSOB, FSB, IOB and Office Buildings was rejected by a supervisor as too expensive.

Issue 313.09-2 - Assign Designated Parking Space for Employees Who Do Not Use Sick Leave

Designated parking for people who do not use sick leave was also rejected. The WBN Local Joint Cooperative Conference has stated that this would discriminate against people who legitimately have to use their sick leave.

Issue 313.09-3 - Not Enough Room for Complaints on Forms

The suggestion is that there be more room on the employee concerns forms to describe the safety problem. This was rejected because employees can write on the back of the forms or attach additional sheets as necessary.

Issue 313.09-4 - Paving Additional Area by Power Stores

Paving and fencing the area behind power stores and adjacent to the loading dock was rejected for security reasons. The view of this area from the watch tower must be unobstructed.

Issue 313.09-5 - Install Floor Drain

Installation of a floor drain or a way to drain spills in the nonreclaim waste tank room was rejected since the room is designed to contain small spills and/or leaks.

Issue 313.09-6 - Paint Bridge Crane and Reverse Osmosis Room Floor

Painting the bridge crane in the unit 1 Reactor Building to assist in decontamination if it should ever become necessary was rejected. The crane at SQN was painted and this paint chipped off into the reactor vessel. This introduction of foreign material into the reactor vessel more than offsets any advantages of easier decontamination of the bridge crane.

The CI wanted to paint the floor of the reverse osmosis room to assist in decontamination if it ever becomes necessary. This suggestion was rejected because there is no piping with radioactive fluid in the room.

Issue 313.09-7 - Install Emergency Lighting in Restroom

The CI suggested installation of emergency lights in the upper level Field Service Building (FSB) restroom. The suggestion is rejected since TVA requirements are that emergency lighting need only be installed in corridors.

Issue 313.09-8 - Fabricate Test Hoses and Leave at Test Site in Locked Box

The individual believes that locked boxes should be provided to store test equipment. This suggestion was disapproved because of the potential for flooding in the area.

Conclusion

Issues 313.09-1 through 8 were not verified as factual.

Generic Applicability

These concerns were WBN specific plant suggestions. No other site evaluations were necessary.

b. Alternate Methods

This section contains suggestions which were not implemented as proposed by the employees, but have been addressed by alternate methods or methods already in existence.

Issue 313.09-9 - Need for Additional Vehicles

This suggestion addresses the needs of the Instrument Maintenance Section (IMS) and engineering. These shops need additional vehicles to run errands and one vehicle large enough to carry six people legally. The responsible supervisors have indicated that a larger vehicle has been obtained and that more efficient use of present vehicles has alleviated this problem.

Issue 313.09-10 - Need Plant Drawing of Service Outlets Permanently Posted

This suggestion refers to a permanently posted plan drawing showing service air, demineralized water, service water and welding outlets for each floor elevation. This would save time in locating these connections. The response to this suggestion is that it is the foreman's responsibility to indicate the position of these outlets. A complete set of drawings already exists in the Modifications Building and is available for viewing by personnel.

Issue 313.09-11 - Better Control of TLD and Dosimeter Badges

The CI suggested better control of TLDs and dosimeter badges. It seems that this CI's TLD had been tampered with. A Radiological Awareness Report (RAR) was issued as a result of this incident. The RAR issued a notice warning personnel about the consequences of tampering with TLDs. The RAR also instructed HP to increase its frequency of inventory of the TLD dosimeter rack from monthly to weekly.

Issue 313.09-12 - Placement of Plexiglass Cover Around Crane Mast

Placement of a plexiglas cover around the unit 1 bridge crane lifting mast to reduce personnel contamination is the next suggestion. ALARA section's response was that temporary, removable shielding would be more flexible and would allow access to the equipment switches. This response is based on established procedures at SQN, which specify a preference for temporary shielding.

Issue 313.09-13 - Change Guard Shack Location to Alleviate Traffic Problems

The CI would like a military-type guard shack installed at the Nuclear Power parking lot to reduce the possibility of a head-on collision during shift change. This problem had previously been identified, and a memorandum was issued directing all outgoing traffic to use a different gate, thus solving the problem.

Issue 313.09-14 - Issue Technical Instruction Listing Instruments Needing Calibration

An individual would like a technical instruction (TI) issued that identifies all technically specified instruments that need calibration. WBN does not have such a TI; however, the information is already available through the permanent plant instrumentation data base using the PRIME Instrument Calibration Status Program (PICSP).

Issue 313.09-15 - Engineers Should Order Spare Parts

The CI believes that, since engineers review and change parts lists, they should also be responsible for ordering the spare parts. The individual thinks this would curtail delays in spare parts procurement. The response to this suggestion is that both the "hands on" experience of the crafts and the involvement of the engineers in equipment changes and substitutions are essential in ordering spare parts. The following actions have been taken to improve parts procurement activities:

1. Spare parts for stock are being made part of contracts for new equipment.

2. A signoff is required, stating that spare parts have been ordered before approval of the workplan.

3. A dedicated procurement group consisting of engineers from the various maintenance disciplines has been formed to address procurement related activities.

4. Each maintenance group has an engineering aide assigned to spare parts procurement activities.

A general foreman in Instrument Maintenance stated that the actions taken since the employee concern originated have significantly improved the spare parts ordering process.

Issue 313.09-16 - Relocate Oil Gauge on Reactor Coolant Pumps (RCP)

An individual has indicated that the oil gauges on the RCPs should be moved to allow easier and safer reading of the oil levels. This problem is associated with a similar problem at SQN which was rectified by a SQN DCR. Due to differences in design of WBN RCP oil reservoirs, this modification is not applicable to WBN. However, indication was given that a DCR would be initiated to improve oil level annunciation in the control room.

Conclusions

Issues 313.09- 9, 11, 12, 15, 16 were verified as factual and present problems for which corrective actions are being taken as a result of the evaluations.

Issues 313.09 - 13, 14 were verified as factual and identify a problem, but corrective actions for the problems were identified before the evaluations were undertaken.

Issue 313.09 - 10 was verified as not factually accurate.

Generic Applicability

These concerns were WBN specific plant suggestions. No other site evaluations are necessary.

c. Implementation Completed

This section contains suggestions that received positive responses from management and action that partially or fully implements the suggestion has been completed.

Issue 313.09-17 - Confidentiality of Employee Concern Program

The individual is concerned about the security or confidentiality of the employee concern program because of the computer system not logging off when it has timed out. It was determined that the information viewed by the CI was not employee concerns related. However, the problem of the computer not logging off when it times out has been identified. Site Automated Data Processing Unit has implemented provisions which will alleviate this problem.

Issue 313.09-18 - Enlarge Window at Tool Issue Room

This employee suggestion addresses lack of space at the MTE tool room issue counter. The solution to this problem was two Maintenance Requests (MRs) which would place in service a second window at the tool counter. This second window was already in place at the time of the suggestion, but due to problems, it was not in service. The window was observed to be open at the subject location by the evaluator.

Issue 313.09-19 - Install Permanent Test Connections

This suggestion deals with attaching permanent instrument connections to the instrument lines in the boric acid evaporator room. There are presently pipe plugs in these lines and installation of the connectors would facilitate calibrations. A Maintenance Request was issued to address this problem and the work was completed on September 30, 1985.

Issue 313.09-20 - Paint Area Indicating Placement of Temporary Differential Pressure Transmitters

The CI wants permanent locations marked off for the connections to the temporary transmitters used in tests. This suggestion has been implemented.

Issue 313.09-21 - Allow Access to Cables in Raceway

The CI would like to have access to the time response cables inside the raceway for the output signal of the DP transmitters located in the accumulator rooms instead of the loose parts monitoring junction boxes inside the polar crane wall. It was suggested to replace pipe caps with instrument fittings and mark location of transmitters with paint. This would reduce the time needed to perform a frequently run test and therefore reduce radiation exposure. The suggestions have been implemented.

Issue 313.09-22 - Paint Stencils on Stretcher Blankets

The CI is concerned about the problem of removal of stretcher blankets. This individual wants all the blankets stenciled to help alleviate this problem. The suggestion has been adequately addressed by the Industrial Safety Department. They have stenciled all stretcher blankets and also put seal type devices on the stretcher cabinets to discourage unnecessary opening.

Issue 313.09-23 - Fabricate Four-wheel Cart to Carry Welding Equipment

The CI stated that fabrication of a four-wheel cart to hold a power pack welder and an argon tank would allow easier and faster access to any part of the plant. A welder in Mechanical Maintenance has indicated that the cart has been built and is in use.

Conclusions

Issues 313.09-17 thru 23 were verified as factual and present problems for which corrective actions have been taken as a result of the evaluations.

Generic Applicability

These concerns were WBN Specific Plant suggestions. No other site evaluations are necessary.

d. Implementation in Process or Planned

The suggestions in this section have received positive responses from management, and action is in process or planned to implement the employee suggestion in part or in full.

Issue 313.09-24 - Steam Generator Floor Grating needs to be Extended

The employee suggested extension of the floor grating near the steam generator manways between the top and bottom of the pressurizer to create a better and safer work area. This concern is also evaluated in several other subcategory and element reports (90900, 30108, 31105). A Workplace Hazard Assessment (WHA) was performed on the area and found that a significant safety hazard exists at the lower platform. At the time of this report, Engineering Changes Notices (ECN) have been issued to remedy this problem.

Issue 313.09-25 - Assign Responsibility for Filter Paper Change to Health Physics

This suggestion is that HP take responsibility for changing the filter paper on the system 90 Continuous Air Monitors (CAM)s. At the time of the suggestion, HP and Instrument Maintenance personnel were involved with the filter change. The CI believes that since HP is there already, let them go ahead and change the filter paper. This would reduce radiation exposure. This suggestion was accepted and HP has assumed responsibility for changing the filter paper on the CAMs. CATD 31309-WBN-03 was issued to track closure of this item.

Issue 313.09-26 - Provide Cameras and Photos to Assist in Work in High Radiation Areas

WBN

This issue is raised by two employee suggestions. The first would like WBN to buy a Polaroid and a portable video camera. These cameras could be used to take pictures of high radiation areas where maintenance work would be done. This would reduce exposure times and would better coordinate the maintenance activities. The second suggestion would like to see photographs and drawings, maps, etc., used in the preplanning of work to help efficiency and reduce exposure. The response to these suggestions is that Maintenance has a Polaroid camera and the training office has a video camera. The use of visual aids is an excellent practice to increase efficiency and help ALARA. At the present time, high quality radiation survey maps are being developed and a book of over 800 photographs of all areas likely to become radiological areas is being published. Interviews with Mechanical and Instrument Maintenance Supervisors, as well as with the HP/ALARA supervisors, indicated that visual aids would be used when necessary for preplanning jobs.

SQN

The suggestion to provide Polaroid and video cameras was also evaluated for SQN. These cameras should be used to photograph potentially high radiation areas so that when maintenance work is being planned in these areas the photographs could be used as visual aids to help maintenance efficiency and ALARA concerns. Interviews with personnel in the HP and ALARA sections determined that they already possess several still cameras. These personnel also stated that, prior to initial criticality, the entire plant was photographed and mapped and that these photographs and maps were available for use by anyone. Also, any steam generator work is monitored by a closed-circuit television system. It has been determined that SQN uses the camera equipment it has available to good advantage . Engineering and HP work well together when it is

determined that visual aids should be used in plant work. Therefore, this issue is not validated for SQN.

Conclusions

Issues 313.09- 24, 25 were verified as factual and present problems for which corrective actions are being taken as a result of the evaluations.

Issue 313.09-26 was verified as factual at WBN and identifies a problem, but corrective action for the problem was initiated before this evaluation was undertaken.

Issue 313.09-26 was not verified as factually accurate for SQN.

Generic Applicability

Issue 313.09-25 was a WBN specific plant suggestion. No other site evaluation is necessary.

Issue 313.09-26 was not substantiated at SQN or WBN. No other site evaluations are necessary.

e. Inadequate Responses

This section contains suggestions that received responses that were determined to be inadequate, or inappropriate actions were taken to resolve the issues. CATD 31309-WBN-01 was sent to the WBN Site Director to reflect the overall poor responsiveness by plant management to suggestions by plant personnel and also to say that several section supervisors' responses were found to be incomplete.

Issue 313.09-27 - Need to Install Clamp to Hold Ramp

The CI stated that the access ramp to door A-56 is stored in such a way that it could easily fall and hurt someone. The individual would like a rack or some type of fastening device used to more securely fasten the ramp to the wall. An MR was supposed to be written on this suggestion; however, it has not been done. The item was placed on the OISL but it was removed in December 1986. At the time of this report, the work has not been completed. CATD 31309-WBN-02 was written to track closure of this concern.

Issue 313.09-28 - Need Shields to Cover Electrical Panels

This suggestion is that shields be installed to prevent dirt and debris from getting into two panels in the Additional Equipment Building. It was determined that this was a very good suggestion, and an MR was initiated to install protective coverings over the panels.

An Instrument Maintenance General Foreman (IMGF) who wrote the original MR says that the request was rejected, but he could not remember why. No record of the MR could be found. A temporary plywood shield now covers the panels and the same IMGF who initiated the original MR has stated that a sheet metal cover may be installed later. CATD 31309-WBN-04 was issued to track closure of this concern.

Issue 313.09-29 - Install Drain on Heating and Cooling Coils

The CI suggests installation of air connections on the heating and cooling coils to facilitate draining the water to prevent freezing during the winter months. The response concurred with the suggestion but indicated that this was a low priority item and would be placed on the Additional Items List (AIL) for Mechanical Maintenance. Interviews with the acting Mechanical Maintenance Supervisor indicates that this work has not been done and it could not be found on the AIL. Also, this suggestion could not be found on the OISL and, at the time of this report, it had not been completed. CATD 31309-WBN-05 was written to track closure of this concern.

Issue 313.09-30 - Recommendation to Reduce Door Maintenance

The CI recommended a method of reducing maintenance on Door A-57. The present door is an automatic door to assist its opening due to pressure differentials across it. The CI suggested that the door be replaced by a manual door and that HVAC penetrations be used to eliminate the pressure differentials. The response to the suggestion was that this was a very good solution, and that if maintenance ever became a problem, a DCR would be prepared to implement the employee's suggestion. Problems with the door have been substantiated and the door is in the process of being redesigned. However, the architect who is doing the redesign has stated that he is unaware of the employee's design suggestion. There had been no resolution of this conflict at the time of this report. CATD 313.09-WBN-06 was written to track closure of this concern.

Issue 313.09-31 - Relocate Control Box to Access Room

The suggestion is that a control station box be moved from inside containment to the access room for ALARA purposes. The ALARA/HP section evaluated this suggestion and, based on SQN data, determined that a substantial man-rem reduction would ensue if the box were moved. An accurate cost estimate for moving the box could not be obtained, and a cost feasibility study was to be conducted. The item was placed on the HP OISL for tracking but was removed from this list in July 1986. At the time of this report a final resolution of this issue had not been achieved. CATD 313.09-WBN-07 was written to track closure of this concern.

Conclusion

Issues 313.09-27 through 31 were verified as factual and present problems for which corrective actions are being taken as a result of the evaluations.

Generic Applicability

These concerns were WBN specific plant suggestions. No other site evaluations are necessary.

4.0 COLLECTIVE SIGNIFICANCE

A collective assessment of the element-level findings (section 3.0) led to the identification of two subcategory-level findings which reflected adversely on management effectiveness:

a. There has been a lack of corporate control over the implementation of Design/Construction standards and requirements into operations activities at BFN and SQN relative to concrete and grout repairs.

b. There have been instances of inadequate corrective action response and follow through by line managers at WBN and BFN.

Implementation of Design/Construction Standards and Requirements

With respect to the first finding, it was determined that M&AI-34 at BFN had not fully implemented the requirements of Construction Specifications G-2 and G-51 for grout repairs. This discrepancy had been documented by a CAR before the current evaluation and is still open. At SQN, portions of M&AI-17 were found to be inconsistent with the requirements of Construction Specifications G-34 and G-51. These examples were similar to findings presented in Subcategory Reports 30100 (Containment Paint Coatings, Element 301.07), 30200 (5 Percent Low Voltage, Element 302.02), and 30400 (Problems in Following Procedures Related to Electrical Aspects of Plant Construction) where upper-tier requirement documents had not been properly incorporated into site implementing procedures.

Inadequate Corrective Action Response and Follow-Through

Four examples from this subcategory support the second finding. First, a recommendation by NSRS regarding a plant instruction for CSSC cleaning solvents was not adequately addressed by WBN line management. Second, two fuel oil spills occurred at WBN in 1985 within seven months of each other due in part to the same faulty tank level indicator. The current evaluation found no indication two years after these spills that the faulty level indicator has yet been fixed. Third, BFN line management had not completed action in an NSRS recommendation to determine if conformance with Regulatory Guide 1.36 is adequately documented.

Finally, five out of 31 employee suggestions at WBN received inadequate responses from line management.

5.0 ROOT CAUSE, PRELIMINARY ANALYSIS

Sections 3.0 and 4.0 discussed the specific findings for each of the element evaluations of this subcategory and their collective significance. This section presents the results of an independent review and analysis done on these specific element-level findings to identify the most frequently occurring and widespread root causes at the subcategory level. Patterns of recurring findings called symptoms were derived from the elements. These symptoms were tested for root causes, and the root causes for all elements were then analyzed collectively to identify which occurred most frequently and at the most sites. Details of the symptoms and root causes derived for each element are presented in Attachment D, "Summary of Symptoms and Root Causes."

A review and analysis of the symptoms and root causes taken collectively pointed to five significant subcategory level-root causes as follows: |R2

a. Adequate systems, processes, or administrative controls are lacking to ensure that commitments are reflected in procedures and processes for CSSC cleaning solvents and concrete/grout repairs (WBN, SQN, BFN).

b. There are inadequate communications between functional groups with respect to concrete and grout activities (WBN, SQN, BFN).

c. Procedures for fuel oil transfer operations and concrete repairs are incomplete or fail to incorporate all technical requirements (WBN).

d. There have been errors in judgment by qualified personnel during fuel oil transfer evolutions (WBN).

e. Inadequate communication within functional groups regarding employee suggestions (WBN) |R2

Corrective Action Tracking Documents (CATDs) were not issued specifically on these subcategory-level root causes. It was believed that corrective action being taken already by line management as part of the commitments made in the Nuclear Performance Plan were helping to address those root causes. However, line management was expected to use the subcategory-level root cause information as an aid in preparing corrective action responses to subcategory-level CATDs that would preclude recurrence of the deficiency noted. The ECTG's process for judging the adequacy of line corrective action responses to subcategory-level CATDs included a determination of how well the applicable root causes were addressed by the responses.

The significant root causes for all subcategories in the Operations category provided part of the input for determining programmatic areas of weakness at the category level and the associated causes. In the Operation Category report, these programmatic weaknesses and associated causes are presented along with a discussion of how they are being corrected through implementation of the Nuclear Performance Plan and other corrective action programs. |R2

6.0 CORRECTIVE ACTION

6.1 Corrective Action at Element Level

6.1.1 Element 313.03 - Housekeeping

NPS

CATD No. 31303-NPS-01

CATD 31303-NPS-01 was sent to DNE corporate management noting that no corporate program exists to address the controlled use of chemicals and their labeling requirements. The acceptable response received from DNE was as follows:

"DNE will revise DPM N73E1, 'Specification Standards of Materials Commonly Associated With Maintenance Which May Come in Contact with Reactor Coolant,' to require positive identification of all containers which hold approved CSSC cleaning solvents. This corrective action plan has been coordinated with Mark Koss."

WBN

CATD No. 31303-WBN-01

The corrective action necessary to resolve this issue is tracked by CATD 31303-WBN-01. This CATD requests WBN to institute a procedural change requiring proper labeling of all CSSC approved cleaners. The acceptable response received from WBN line management was as follows:

"Watts Bar Nuclear Plant (WBN) will revise Technical Instructions (TI) 35 (a PORC reviewed instruction), for the control of materials that can be used on critical structures, systems and components (CSSC). This will include the use of cleaning solvents. Implementation of the instruction will ensure that materials which may come into contact with CSSC equipment will be labelled accordingly. Implementation of TI-35 will be through the Power Stores Supervisor and coordinated with other section supervisors. Power Stores will place labels on materials approved for use on CSSC equipment.

"In the interim, until corrective action is completed, a memorandum will be routed to all section supervisors to reemphasize the requirements of TI-35. This memorandum will be issued by March 3, 1987."

6.1.2 Element 313.04 - Environment

WBN

CATD No. 31304-WBN-01

Evaluation of this issue at WBN resulted in two CATDs. One CATD (CATD 31304-WBN-01) is associated with the oil transfer from the seven-day tank 1-AA to the seven day OC-S tank in the fifth diesel. No procedure governs this task and an oil spill resulted from this activity. The acceptable WBN line response was as follows:

"The oil spill that occurred upon oil being transferred from 1A-A 7-day tank to the fifth diesel 7-day tank was not a result of a lack of procedure, but was a result of improper tank level indication as noted CATD 31304-WBN-02. This is a simple process and does not need a written procedure. A precaution has been added to System Operating Instruction (SOI) 18.1 to manually "stick" the level before transferring fuel oil. This will be accomplished until the level indicator has been proven to be accurate."

CATD No. 31304-WBN-02

The other CATD (CATD 31304-WBN-02) would require WBN to discover the location of two MRs (MRs A-400390, A-575520).

Without these MRs it is impossible to determine if adequate corrective action was taken to preclude future oil spills. The acceptable WBN line response was as follows:

"The tracking and retrievability of Maintenance Requests (MRs) is accomplished by two computer software packages. One package is the Maintenance Request Scheduling (MRS). After the maintenance planner receives an MR, the MR is put into MRS. The MR will stay on MRS until all work and testing is complete, and is reviewed and approved by the responsible section. If the MR is CSSC or non-CSSC/limited Quality Assurance (QA) corrective maintenance, the MR is forwarded to the plant master file. On MRS the MR is listed by MR number. On the other software package, Nuclear Plant Document Control Scheduling (NPDCS), the MR is listed by the equipment identifier.

"A task group will be formed to evaluate the adequacy of the WBN computerized data systems pertaining to maintenance activities. This task group will make recommendations to modify the systems in the areas identified that would require enhancements and better utilize the system available.

"The following items will be considered as a minimum: (1) Data input and output formats; (2) File identifiers (for entry/retrieval); (3) "Keyword" usefulness; (4) Input/output procedures; (5) System for assuring that needed files are computerized. This task group shall consist of at least members from the maintenance sections, and the Document Control Unit (DCU)."

6.1.3 Element 313.05 - Sewage Treatment

WBN

CATD No. 31305-WBN-01

CATD 31305-WBN-01 was issued to DNE to address the recurring problem of raw sewage overflowing from manholes in front of the WBN Field Services Building. DNE was requested to inititate a review to determine if total resolution is viable at this time.

The response from line management for CATD 31305-WBN-01 was that "TVA recognizes this condition as one which requires further engineering evaluation to determine what (if any) corrective action is required. Problem Identification Report (PIR) WBNWBP87107 has been written to address this condition, and to document any corrective actions determined by DNE to be necessary.

"Sewage disposal systems are unique for each plant. Each lift station is designed for its unique set of requirements. This PIR does not represent a generic condition."

6.1.4 Element 313.06 - Questionable Concrete Repair (Grout)

WBN

CATD No. 31306-WBN-01

CATD 31306-WBN-01 was issued concerning the failure of ONP personnel to properly install expansion material in through-wall penetrations in the Turbine Building. The CATD also requests an inspection of all work done prior to the incorporation of M&AI-19 to ensure compliance with M&AI-19.

This CATD replaced Notice of Immediate Action (NIA) 13 OP313 and tracked the response to this NIA. The response from line management concerning this CATD is as follows:

"In regard to Notice of Immediate Action 13 OP313 attached to the referenced memorandum, we have the following comments:

(A) "As referenced in the note on the first page of the Notice of Immediate Action 13 OP313, the corrective actions were performed as indicated in memorandum T14 860508 803. The work was performed on MR A477751 and is complete."

(B) "The inspection of grout/concrete repairs performed prior to implementation of MAI-19 revealed that all areas and operations were adequately performed. However, one pipe support which should have been inspected by MAI-17 failed to have an inspection performed on placement. The work was performed under MR A534205 and was for a pipe support for the condensate booster pump B suction line located 11 feet west of T8 line and on E-line at elevation 685 in the Turbine Building. It was performed on August 8, 1985. The material used was borrowed from the Division of Construction (sample 9889) with acceptable results. Inspection of this non-load bearing, non-QA support in a noncategory I building shows acceptable performance and, therefore, was evaluated by engineering personnel to be used-as-is. Structural integrity is not compromised.

"All protective coatings have been performed under MI-270.10 with no deficiencies. All structural concrete placement activities were performed under approved procedures.

"Inspection of backfill operations found two discrepancies both in a non-QA area. The first area was work performed around June 5, 1984, at the Hypochlorite Building for a hypochlorite line added/reworked under workplan 3997 (FCR FS-339). Nonconformance reports 5659 and 5668 were written against this work. The area was reworked and an acceptable relative density of 98.6 percent obtained. The second area was work performed around December 13, 1984, under workplan 4864 (FCR FS 578) for a conduit encasement in the switchyard for hydrogen analyzers. The fill area was very shallow with a total of three cubic yards of [grout type] 1032 used. The area has been evaluated by engineering personnel to be used-as-is. Structural integrity has not been compromised."

The memorandum T14 860508 803 referenced in Part (A) of the response was a letter to plant master files, WBN ONP, from the Modifications Manager. The letter described engineering evaluations performed on areas of the Turbine Building identified in concern IN-86-221-002 and IN-86-221-003. The deletion of the expansion material from three areas was considered not acceptable from an engineering standpoint. These three areas were chipped out and replaced according to MR A477751.

SQN

The concerns from WBN were evaluated for SQN. Even though the original concerns at WBN were not validated at SQN, the following four CATDs were prompted from an evaluation of SQN Maintenance and Additions Instructions (M&AI) and previously performed work. CATD 31306-SQN-01 illustrates the problems with M&AI-17. This CATD determines that core-drilled holes were not scarified and that 12 hour wet sacking requirements of G-34 and G-51 were reduced or waived. The next CATD (-02) concerns the quality of grout which was installed prior to incorporation of changes in M&AI-17. The third CATD (-03) regards the wet sacking of concrete which could have been detrimental to superior bonding. The last CATD (-04) details problems with workplans which used M&AI-17 as the controlling document. The work performed was in reality controlled by G-34 which is not referenced in M&AI-17.

The following responses were received by ECTG from line management in regards to the four CATD's written at SQN. References that are referred to are listed in RIMS document S02 861209 932.

"In response to Reference 1, the following corrective actions are being submitted to you for review:

CATD No. 31306-SQN-01

"Revisions have been made to M&AI-17 to clarify toughening requirements for core-drilled holes and to remove the section which allows a waiver of wetting criteria. These changes have been approved by DNE and will prevent future violations of G-34 and G-51 requirements.

"In view of the fact that the roughness of a scarified surface is not generally counted on for carrying loads and no grout failures have been noted, I conclude that no CAQ exists for past installations of grout per M&AI-17."

CATD No. 31306-SQN-02

"A lack of in-process testing on past installations is not considered detrimental to the quality of those installations for the following reasons:

1. "M&AI-17 has historically required the use of Five-Star grout or equal and the "or equal" option has never been exercised.

2. "Qualification test results from Singleton Materials Engineering Laboratory indicate acceptability of the material over a wide range of water contents.

"As stated in Memorandum S02 860825 801 and Memorandum S02 860808 931 a lack of indications of grout failures from reviews of maintenance history and visual inspections is sufficient evidence to conclude acceptability of past installations.

"Additionally, a memorandum has been sent to DNE requesting clarification/revision of Construction Specifications to account for problems encountered with operating plant conditions.

"Future installations of grout will be improved because of revisions to M&AI-17 and better coordination with DNE."

CATD No. 31306-SQN-03

The response from line management for CATD 31306-SQN-03 was that "this requires no additional action since no problems detrimental to quality were identified. However, the addition of civil inspectors and the active involvement of the Modifications civil engineer in these types of activities give me confidence that our work performance will continue to improve."

CATD No. 31306-SQN-04

The response from line management for CATD 31306-SQN-04 was that "repairs to be performed by the workplans in Memorandum S03 861126 807 and Memorandum S02 861023 969 would be considered cosmetic in nature and would have been performed using grout. No indications of repairs were found; thus, no actions are required. References to General Construction Specification No. G-34 are included in Modifications and Additions Instruction M&AI-21 (concrete placement and repair), which is currently in the revision cycle."

BFN

CATD Nos. 31306-BFN-01, 02

Two CATDs were issued to BFN line management to identify BFN's failure to incorporate stipulations of General Construction Specification G-51. CATD 31306-BFN-01 was written because of BFN's failure to respond to a Corrective Action Report (CAR) documenting that M&AI-34 did not fully implement construction specification G-51 requirements. CATD 31306-BFN-02 noted that qualification of certain grout installations had not been included in a line management response to QA audit deviations for grouting and drypacking.

The response from line management for CATD 31306-BFN-01 is as follows:

"A revision to Modification Addition Instruction (MAI-34) was submitted to Plant Operations Review Committee (PORC) for approval on 12/15/86, clarifying the curing of dry-pack. The MAI was approved by PORC on 2/13/87. It now requires curing compound to be applied only for interior use. Since Modifications does not anticipate performing this activity on the exterior of site structures requiring cold weather protection, these requirements are not included. Should the situation arise, MAI-34 will be revised to include these requirements. Since G-51 does not specify the use of commercial premixed grouts in dry-pack form, the BFN, DNE Civil Engineering Branch will initiate a Supplemental Revision Notice (SRN) for G-51 to allow commercially premixed grout to be used in dry-pack form. These items must be resolved prior to unit 2 startup."

The response from line management for CATD 31306-BFN-02 is as follows:

"Modification Addition Instruction (MAI)-34 has been revised to incorporate comments generated from Division of Nuclear Engineering's (DNE) review, Immediate Temporary Change Procedure (ITCP) MAI 34-04, and corrective action as required per CATD 31306-BFN-01. This revision was PORC approved February 13, 1987.

"An initial evaluation of nonload bearing dry pack applications was conducted January 15, 16, 1987 to qualify all dry pack operations performed without adequate inspection and testing requirements as stated in G-51 Specification. This evaluation was made in response to QBF-A-85-0008-D02 and noted in memorandum R05 860611 812. Due to negative results

of this evaluation, a second evaluation program requiring additional inspections for dry pack installation is presently being developed by DNE and Modifications. "Conduit penetrations which were grout or dry packed without proper documentation, adequate instructions or procedural references was addressed in BF-CAR-86-0056. As part of the corrective action for this CAR, an evaluation qualifying grouted conduits at BFN is provided in memorandum B22 870406 001. MAI-27, Installation of Conduit, is being revised to incorporate proper grouting and dry packing instructions as noted on the 41B4800 series drawings. This revision includes acceptance criteria and documentation for future installations.

"The items must be resolved before unit 2 startup."

6.1.5 Element 313.07 - Sequoyah Nuclear Plant (SQN) Insulation

The original concern was a problem with possible fluoride/ chloride contamination of stainless steel in the Sequoyah Plant.

Although no discrepancies were found at SQN, WBN or BLN, a CATD (CATD 31307-BFN-01) was issued at BFN.

BFN

CATD No. 31307-BFN-01

The CATD reports that Browns Ferry has not evaluated the level of fluoride and chloride in the nonmetallic insulation used on austenitic stainless steel safety-related piping. The acceptable response received from BFN line management was as follows:

Basis For Action Plan

"Regulatory Guide 1.36 sets maximum levels of fluorides and chlorides in insulation for use on safety-related stainless steel piping. Non-metallic insulation currently purchased or contracted for by TVA for BFNP is specified to meet Regulatory Guide 1.36 requirements. Possibly some non-metallic insulation is stored at BFNP which does not meet 1.36 requirements.

"Limited document search (for piping 2 1/2" nominal diameter and larger) reveals that non-metallic insulation was used on stainless steel piping on the SLC SYS (63) and the EECW SYS (67). No documentation is available to establish compliance to Regulatory Guide 1.36.

Proposed Corrective Action Plan

1. "Establish onsite storage procedures to ensure that no unqualified insulation is available for use on stainless steel CSSC piping.

2. "Complete Document Review (for piping 2" nominal diameter and smaller) in order to complete identification of CSSC stainless steel piping with non-metallic insulation.

3. "Document that non-metallic insulation installed on CSSC stainless steel piping meets requirements of Regulatory Guide 1.36 or replace with qualified insulation, where required. A "walkdown" verification will probably be necessary for this documentation. Documentation will be provided on a safety analysis.

4. "Provide TVA drawings and construction specification for BFNP to document and control insulation installed on CSSC stainless steel piping. (The drawing and specification provision is also a corrective action response to BF-CAR-87-0012).

"Items 1, 2, and 3 to be completed before U2C5 startup approximately October 1, 1987, for unit 2 only. The balance of the work to be completed by June 30, 1988."

6.1.6 Element 313.09 - Plant Improvements/Suggestions

WBN

CATD No. 31309-WBN-01

The concerns of 313.09 generated seven CATDs, all at WBN. These CATDs indicate a poor response by plant management to suggestions by plant personnel. The first CATD (CATD 31309-WBN-01) was sent to the WBN Site Director to reflect this overall indication and to say that several section supervisors' responses were found to be incomplete. The CATD suggests that when the initial response indicates that the suggestion will be implemented, a final response should be provided when work is complete or when a final resolution is reached. Additionally, several cases were noted in the CATD where open items were not placed on the Outstanding Items Status List (OISL) for tracking as required

by plant instructions, and two items that were placed on the OISL were reported as removed without a final resolution being obtained. The acceptable response received from WBN was as follows:

"Memorandums from the plant manager to the site director and the section supervisors will be sent to address the problems associated with the Employee Suggestions Program. These memorandums will identify the lack of properly tracking employee suggestions, the need to adequately followup on commitments, and to provide a documented final resolution."

NOTE: This corrective action was determined to be adequate since the specific cases of inadequate resolution of employee suggestions are addressed in responses to CATDs 313.09-WBN-02 thru 07. Additionally, ONP's Management Development and Training program places a strong emphasis on communication up and down the line as indicated in the response to subcategory CATD 31300-NPS-02. R2

CATD No. 31309-WBN-02

CATD 31309-WBN-02 responds to a particular concern (WBN-MDM-3). The CATD states that an MR was to be written to have a locking device installed to secure the access ramp at door A-56. This MR was not written and the item was removed from the OISL without the work being done. The acceptable response received from WBN Modifications was as follows:

"Modifications has initiated MR-A-594909 to have a locking device installed. The corrective action for this CATD will be the disposition of MR-A-594909."

CATD No. 31309-WBN-03

CATD-31309-WBN-03 was issued to Health Physics. This CATD concerns the responsibility for changing the filter papers in the Continuous Air Monitors (CAMs). This responsibility is not covered by any plant instruction and the response to concern WBN-240 has not been completed. The acceptable response received from WBN Health Physics was as follows:

"HP-TSIL-15 "Surveillance of CAMS and ARMS" will be revised to denote that Radiological Control Operations has the responsibility to change filter papers on Continuous Air Monitors (CAMS)."

CATD No. 31309-WBN-04

The next CATD concerns Instrument Maintenance. CATD 31309-WBN-04 involves the installation of permanent sheet

metal protective covers. The protective covers were a concern of a CI in Employee Concern WBN-245. An MR (MR-A-413317) was written; however, the work was never done. The acceptable response received from WBN Instrument Maintenance was as follows:

"A review of MR-A-413317 determined that the installation of a permanent protective cover would require a design change. A design change request (DCR) will be initiated by March 30, 1987 and submitted for plant management review and prioritization. As an interim measure, a temporary plywood cover has been installed to protect the panels."

CATD No. 31309-WBN-05

The fifth CATD (CATD 31309-WBN-05) involves the Mechanical Maintenance Department. The Mechanical Maintenance Supervisor had agreed with the suggestion in concern WBN-0026, and had indicated that the drain plugs that would facilitate draining heating and cooling coils would be installed. However, this item is not on the section's OISL and has not been done. The acceptable response received from WBN Mechanical Maintenance was as follows:

"This employee suggestion (WBN-0026) has been kept in a hold file pending DNE manpower to evaluate FCRs/DCRs for modifications not involving personnel safety or affecting startup. It was inadvertently not added to the Mechanical Maintenance AIL list as committed in the supervisor's response. It has recently (January 24, 1987) been added to the AIL as Item MM8743, and to the OISL as Item J-0087. An FCR/DCR will be drafted and submitted for plant management review and prioritization. If present plant policies continue, implementation of this change will be an AFL1 item."

CATD No. 31309-WBN-06

CATD 31309-WBN-06 is associated with the design of door A-57. Employee concern WBN-85-002PI suggested an alternate design for this door if redesign should become necessary. The door is now in the process of redesign without regard to the employee's suggestion. The acceptable response received from WBN DNE was as follows:

"The design change proposals in Design Change Request DCR-0682 address the employee suggestions in WBN-85-002PI except for the elimination of the air pressure differential across the A-57 door. DCR-0682 is presently under technical evaluation. Design for this modification should be scheduled for completion of the Auxiliary Building work which is required for Group 6 in the current fuel load milestone schedule.

"Operations will submit a Design Study Request (DSR) to Design by April 10, 1987 to investigate the changes required to eliminate or deal with the air pressure differential across the A-57 door."

CATD No. 31309-WBN-07

The last CATD, CATD 31309-WBN-07, notes that the Health Physics supervisor had indicated that further evaluation would be performed on suggestion WBN-0295, and that the item was to placed on the OISL for tracking. This item was later removed from the OISL and the final response was not provided. The acceptable response received from WBN Health Physics was as follows:

"Employee suggestion WBN-0295 suggests that Control Station Box 1-JB-293-3117 be relocated for ALARA purposes. Rad Con will coordinate with other engineering groups to ascertain a cost estimate for relocating 1-JB-293-3117. Other panels to be included in this assessment will include 1-L-437 and 1-L-331. Upon attaining cost estimate Rad Con will perform an ALARA review, including cost-benefit analysis. If appropriate, Rad Con will submit a Design Change Request (DCR).

"Estimated completion date to coordinate activities: March 15, 1987. Estimated completion date for ALARA review: 15 days after receipt of cost estimate."

6.2 Corrective Action at Subcategory Level

CATDs 31300-NPS-01 and 31300-NPS-02 were sent to corporate management to address the two subcategory-level findings of this report as presented in section 4.0. The first CATD notes the lack of corporate control over implementation of Design/Construction standards and requirements relative to concrete and grout repairs, at BFN and SQN. The second CATD addresses the numerous examples of inadequate corrective action response and follow-through by line managers at WBN and BFN.

The response to subcategory CATD 31300-NPS-01 is as follows:

"The Division of Nuclear Engineering (DNE) has initiated a Specification Improvement Program (SIP), in part, as a result of DNQA Audit Deviation QBF-A-85-0008-D10. In summary, the audit finding states that ONP/DNE has failed to coordinate and establish the applicable requirements of the general construction specifications that are to be applied to modification and non-routine maintenance activities at the operating nuclear plants.

"The SIP will involve the development of master specifications and project-specific Engineering Requirements (ER) specifications from the existing general construction specifications. The ER specification will provide the engineering requirements for new construction, modification and non-routine maintenance on a given subject. A computerized tracking system will be developed that will identify all DNC, DNQA, and ONP site procedures that derive technical guidance from a master specification or ER specification so that when an engineering specification is revised the corresponding procedures are identified for revision.

"The SIP Program Manual, which will identify the SIP scope and schedules, will be issued by July 1, 1987. The scope requires the generation of 67 master specifications and corresponding ER specifications for each site. Other master specifications will be generated as user needs are identified over time."

CATD No. 31300-NPS-02

The response to subcategory CATD 31300-NPS-02 is as follows:

"All conditions adverse to quality are now covered under NQAM Generic Procedure Part I Section 2.16. This procedure and all lower tiered implementing documents address the identification, documentation, evaluation, correction, and reporting of conditions adverse to quality for all TVA's nuclear facilities.

"As part of ONP's Management Development and Training Program, strong emphasis has been put on communications up and down the line. An awareness campaign promoting the theme "Talking and Listening" has been initiated throughout ONP. This campaign is designed to reinforce the message that communication among employees is essential to the success of our program and that open and candid communication is the way to recognize and resolve our problems.

"These programs along with site specific programs are geared toward employee communications. Although this will not completely eliminate the problem, it should go a long way toward keeping employees apprised of their suggestions and the status of any corrective action.

As problems are identified in specific areas or sites, they will be addressed at that time by the appropriate management."

This corrective action is adequate as the NQAM Generic Procedure Part I, Section 2.16 referenced in the above response is a new program for addressing conditions adverse to quality (CAQs) and was implemented in March 1987. R2

7.0 ATTACHMENTS

Attachment A - Subcategory Summary Table

Attachment B - Listing of Concerns by Element/Issue

Attachment C - Checklist for Root Cause Analysis

Attachment D - Summary of Symptoms and Root Causes

Attachment E - Graph of Symptoms versus Root Cause

Attachment F - Bar Charts of Symptoms

Attachment G - Bar Charts of Root Cause

Attachment H - CATDs

Attachment I - List of Evaluators

ATTACHMENT A

31300
Revision 2

SUBCATEGORY SUMMARY TABLE

EMPLOYEE CONCERN SUBCATEGORY: 313

ATEGORY: OP PLANT OPER. SUPPORT

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	REF. SE CAT SUBCAT Section/Iss
BFN-86-019-00101	OP	31308	N	BFN	1 Y N N N 2 SS NA NA NA		NSRS	DURING THE EXIT INTERVIEW THE CI EXP RESSED HIS CONCERN ABOUT THE INABILI TY OF THE HPCI SYSTEM TO OPERATE PRO PERLY. THE CI HAD BEEN DIRECTLY INV OLVED IN SEVERAL INSTANCES WHERE THE TURBINE/PUMP DID NOT OPERATE SATISF ACTORILY DURING HPCI OPERATIONS.	3.8 313.08-
IN -85-136-00101 T50074	OP	31305	N	WBN	1 N N N Y 2 NA NA NA NO	IN-85-136-001	QTC	SEWAGE TREATMENT PLANT OPERATION - S EWAGE PLANT OPERATION HAS NEVER BEEN ADEQUATE ON THE PLANT-SITE. FLOW P ATHS & FINAL DESTINATION ARE QUESTIO NABLE. EXAMPLE: M-H COVER (RIGHT AT MAIN ENTRANCE OF NUCLEAR POWER OFFI CE BUILDING) LIFTING ITSELF UNDER PR ESSURE AND RAW SEWAGE FLOWING. 35 A CRE POND GETTING POLLUTED. C/I IS N OT SURE, IF THE FILTER BEDS ARE WORK ING PROPERLY.	3.5 313.05-
IN -85-136-00201 T50074	OP	31305	N	WBN	1 N N N Y 2 NA NA NA NO	IN-85-136-002	QTC	SEWAGE TREATMENT PLANT - RAW WATER C HLORINATION SYSTEM HAS NEVER FUNCTIO NED PROPERLY. PROPER DOSAGE IS NOT GIVEN. SYSTEM DOES NOT WORK. PROBL EM HAS BEEN UNCORRECTED FOR LAST 3 Y EARS. PERMANENT SOLUTION NEEDS TO B E FOUND. CHLORINATION INJECTION PUM PS REPLACED 3 TIMES AND STILL NOT WO RKING.	3.5 313.05-
IN -85-307-00101 T50021	OP	31305	N	WBN	1 N N N Y 2 NA NA NA NO		QTC	SEWAGE TREATMENT PLANT FACILITIES, R AW SEWAGE BUBBLING OUT OF MANHOLES & RUNNING OVER SIDEWALKS & ROADS WHER E EMPLOYEES WORK. (THIS IS A RECURR ING OR CONTINUOUS PROBLEM)	3.5 313.05-
IN -85-509-00101 T50043	OP	31301	N	WBN	1 N N N Y 2 NA NA NA NO	IN-85-509-001	QTC	OCCASIONALLY MAINTENTANCE PEOPLE (NA MES & DISCIPLINE KNOWN) HAVE TO WORK BY THEMSELVES ON VARIOUS TYPE OF JO BS. IT SHOULD BE POLICY TO SEND AT LEAST TWO PEOPLE ON EACH JOB. IN CA SE OF AN INJURY, THE OTHER PERSON CO ULD GET HELP.	3.1 313.01-

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

REFERENCE [redacted] ECPS132J-ECPS132C
FREQUENCY [redacted] REQUEST
ONP - ISSS [redacted] WM

TENNESSEE VALLEY AUTHORITY
OFFICE OF NUCLEAR POWER
EMPLOYEE CONCER[redacted]OGRAM SYSTEM (ECPS)
EMPLOYEE CONCERN INFORM[redacted]N BY CATEGORY/SUBCATEGORY

ATEGORY: OP PLANT OPER. SUPPORT
SUBCATEGORY: 313 HOUSEKEEPING

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION	REF. SI CAT SUBCAT Section/Iss
									3.3
IN -85-675-00101 T50063	OP	31303	N	WBN	1 N N N Y 2 NA NA NA NO	IN-85-675-001	QTC	UNIT 1 CONTAINMENT WAS NOT READY FOR FUEL LOAD IN MARCH '85. CONTAINMENT WAS "FILTHY" (HOUSEKEEPING) AND THERE WAS A PIPE STAND IN CONTAINMENT. CONTAINMENT WAS SUPPOSED TO BE READY FOR FUEL LOAD. CI HAD NO FURTHER DETAILS.	313.03 313.03
IN -85-753-00101 T50075	OP	31305	N	WBN	1 N N N Y 2 NA NA NA NO	IN-85-753-001	QTC	RAW SEWAGE IS DRAINING FROM A CONCRETE STRUCTURE IN FRONT OF THE FIELD SERVICES BUILDING	3.5 313.05
IN -85-758-00201 T50073	OP	31303	S	WBN	1 N N N Y 2 NA NA NA NO	IN-85-758-002	QTC	CLEANLINESS IN THE AUX. BUILDING IS NOT WHAT IT SHOULD BE. THERE IS DUST, DIRT AND GRIME EVERYWHERE. (UNIT 1) NO ADDITIONAL INFORMATION AVAILABLE. NO FOLLOW-UP REQUIRED.	3.3 313.03
02	SF	91001	S	WBN	1 N N N Y 2 NA NA NA NO				
IN -85-872-00101 T50089	OP	30108	S	WBN	1 N N Y Y 2 NA NA NO NO	IN-85-872-001	QTC	THE FLOOR GRATING NEEDS TO BE EXTENDED IN THE AREA NEAR THE STEAM GENERATOR MANWAYS AND BETWEEN THE TOP AND BOTTOM OF THE PRESSURIZER. THIS INCREASED WORK SPACE WOULD BENEFIT THE CRAFTS AND HEALTH PHYSICS. IT WOULD ALSO CREATE A MUCH SAFER WORKING AREA.	3.9 313.09
02	OP	31309	S	WBN	1 N N N Y 2 NA NA NA NO				
03	SF	90906	S	WBN	1 N N N Y 2 NA NA NA NO				
IN -85-940-X0101 T50095	OP	31304	N	WBN	1 N N N Y 2 NA NA NA NO	IN-85-940-X01	QTC	HYDRAZINE REMAINING IN PIPING SYSTEMS (AFTER HYDRAZINE CLEANING) IS FLUSHED INTO THE SETTLEING POND. HOW MUCH HYDRAZINE HAS BEEN PUMPED INTO THE POND? WHO IS RESPONSIBLE FOR PUTTING IT THERE? WHAT HEALTH HAZARDS EXISTS? DATA AND INDIVIDUAL RESPONSIBLE FOR LAST "DUMP" ARE KNOWN TO QTC. CI HAS NO FURTHER INFORMATION. NO FOLLOW UP IS REQUIRED.	3.4 313.04

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

TEGORY: OP PLANT OPER. SUPPORT
SUBCATEGORY: 313 ENVIRONMENTAL

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	REF. SECTI CAT - O SUBCAT - 3 Section/Issu
N -86-018-00101 T50262	OP	31304	N	WBN	1 N N N Y 2 NA NA NA NO		QTC	DIESEL OIL SPILL ENTERED THE STORM D RAIN AND ENDED UP IN THE RETENTION P ONDS. A CLEANUP ATTEMPT WAS MADE, B UT CI FEELS THE CLEANUP WAS NOT COMP LETE AND MUCH OF THE OIL WAS FLUSHED INTO THE RIVER. NO FURTHER INFORMA TION IN FILE. NUCLEAR POWER DEPARTM ENT CONCERN.	3.4 313.04-2 313.04-3
N -86-055-00101 T50113	OP	31304	N	WBN	1 N N N Y 2 NA NA NA NO	IN-86-055-001	QTC	1984 FUEL FROM THE DIESEL GENERATOR SPILLED INTO THE POND DUE TO OPERATO R ERROR AND COULD NOT BE CLEANED UP COMPLETELY. CI HAS NO MORE INFORMAT ION. NUCLEAR POWER CONCERN. NO FOL LOW UP REQUIRED.	3.4 313.04-2 313.04-3
N -86-190-00401 T50133	OP	31304	N	WBN	1 N N N Y 2 NA NA NA NO	IN-86-190-004	QTC	IN THE SUMMER/FALL OF 1984, TVA EMPL OYEES (NAMES KNOWN) PUMPED SEVERAL T HOUSAND GALLONS OF WATER/HYDRAZINE F ROM A SUMP AT ELEV. 685' (TURBINE BL DG.) TO ELEV. 713', WHERE IT WAS PUM PED TO AN OUTSIDE DRAIN. WHERE THIS FLUID WENT IS UNKNOWN. CI HAS NO A DDITIONAL INFORMATION. NUCPWR CONCE RN, UNIT #2. NO FOLLOW UP REQUIRED.	3.4 313,04-1
N -86-197-00101 T50125	OP	31302	N	WBN	1 N N N Y 2 NA NA NA NO	IN-86-197-001	QTC	DOOR A-62 ON UNIT 1 NEEDS A DIFFEREN T TYPE OF GRASPING DEVICE. WHEN THE RE IS A DIFFERENTIAL AIR PRESSURE BE TWEEN THE TWO SIDES OF THE DOOR, IT IS VERY DIFFICULT TO GRAB THE ROUND DOOR KNOB AND PULL TO OPEN. THIS HA S BEEN DOCUMENTED AS A SAFETY SUGGES TION, WITH NO RESPONSE RECEIVED. CI HAS NO ADDITIONAL INFORMATION. NUC PWR. DEPT CONCERN. NO FOLLOW UP RE QUIRED.	3.2 313.02-2

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY

EGORY: OP PLANT OPER. SUPPORT
SUBCATEGORY: 313 QUESTIONABLE CONCRETE REPAIR (GROUT)

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	REF. SECTI(CAT - 0(SUBCAT - 3. Section/Issu
I -86-217-00101 T50132	OP	31306	N	WBN	1 N N N Y 2 NA NA NA SR	I-85-453-WBN	QTC	THERE ARE NO CERTIFIED CONCRETE FINISHERS WITHIN A TVA GROUP (KNOWN). CI STATED THAT CONCRETE FINISHERS MUST BE CERTIFIED (BY TESTING) TO PERFORM "DRY PACKING", BUT HIS WORK IS BEING PERFORMED BY OTHER CRAFT (KNOWN). NUC PWR DEPT. CONCERN. CI HAS NO ADDITIONAL INFORMATION. NO FOLLOW UP REQUIRED.	3.6 313.06-1
I -86-221-00201 T50200	OP	31306	N	WBN	1 Y N Y Y 2 NO NA NO NO	IN-86-221-002	QTC	TURBINE BUILDING, ELEV. 676', STRAIGHT OUT OF THE ELEVATOR, DOWN A SET OF STEPS, AND TO THE RIGHT - CI STATED THAT THE CONCRETE/GROUT USED TO INSTALL SLEEVES IN THE WALL PENETRATIONS WAS IMPROPERLY PREPARED AND THE FORMS WERE NOT INSTALLED CORRECTLY. NUC. POWER DEPT. CONCERN. CI HAS NO ADDITIONAL INFORMATION.	3.6 313.06-2
N -86-221-00301 T50134	OP	31306	N	WBN	1 Y N Y Y 2 NO NA NO NO	IN-86-221-003	QTC	TURBINE BLDG, EL. 676', STRAIGHT OUT OF THE ELEVATOR, DOWN A SET OF STEPS, AND TO THE LEFT - A HOLE IN THE FLOOR APPROX. 2' DEEP BY 3' WIDE X 3 1/2-4' LONG WAS FILLED WITH GROUT, IN LIEU OF CONCRETE. NUC PWR. DEPT. CONCERN. CI HAS NO ADDITIONAL INFORMATION. NO FOLLOW UP REQUIRED.	3.6 313.06-2
N -86-221-00401 T50134	OP	31303	N	WBN	1 N N N Y 2 NA NA NA SR	I-85-484-WBN	QTC	UNIT #1 CONTAINMENT - CRAFTS (KNOWN) USING CLEANING FLUIDS THAT ARE NOT LABELLED "CSSC APPROVED". NUC PWR DEPT CONCERN. CI HAS NO ADDITIONAL INFORMATION. NO FOLLOW UP REQUIRED	3.3 313.03-4
II-86-A-0022 01	OP	31304	N	SQN	1 N N Y N 2 NA NA NO NA		NRC	AN ANONYMOUS ALLEGER STATED THAT OVER THE PAST YEAR (SINCE ABOUT JANUARY 1985) THE PIPING FOR ROUTING THE RAW WATER FROM THE TURBINE BUILDING SUMP AT SEQUOYAH HAS HAD A LARGE LEAK TO THE OPEN GROUND WHEN THE TURBINE BUILDING SUMP PUMPS OPERATE. THIS MATTER APPLIES TO SEQUOYAH ONLY.	4.4 313.04-4

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION	REF. SECTI CAT - 0 SUBCAT - 3 Section/Issue
II-86-A-0100	01	OP	31304	N SQN	1 N N Y N 2 NA NA NO NA		NRC	THE ALLEGER STATED THAT DURING 1974 OR 1975, TOXIC CHEMICALS WERE BURIED ON SITE IN A PIT. THIS CHEMICAL WAS A JELLY-LIKE SUBSTANCE USED TO FINISH CONCRETE. TRUCK LOADS OF THE CHEMICAL WERE DUMPED INTO THE PIT. ON ONE OCCASION, THE MATERIALS WERE IN CARDBOARD BOXES AND PLASTIC TRASH BAGS WHICH WERE DUMPED INTO THE PIT. ALSO, ANOTHER ENVIRONMENTAL CONCERN WAS EXPRESSED BY THE ALLEGER RELATED TO THE USE OF FUEL OIL TO BURN WOOD LEFT OVER FROM THE CONSTRUCTION OF THE COOLING TOWERS.	3.4 313.04-5 313.04-6
MM-85-001	01	OP	31302	N SQN	1 N N Y N 2 NA NA NO NA		OECP	LIGHTS OUT IN STAIRWELL IN O & PS BUILDING.	3.2 313.02-1
MM-85-002	01	OP	31302	N SQN	1 N N Y N 2 NA NA NO NA		OECP	LIGHTS OUT AGAIN IN STAIRWELL IN O & PS BUILDING. PM PROGRAM NEEDED	3.2 313.02-1
QM-86-001-00101 T50240		OP	31303	N SQN	1 N N Y N 2 NA NA NO NA	SQM-86-001-001	QTC	CI FEELS THE VACUUM CLEANERS ARE TOO BIG TO PROPERLY CLEAN IN SMALL AREAS AND ARE TOO HEAVY TO MANEUVER EASILY OR QUICKLY THEREFORE LOSING TIME TO DO THE JOB. NUCLEAR POWER CONCERN. CI HAS NO FURTHER INFORMATION. NO FOLLOW UP REQUIRED.	3.3 313.03-1
QN-85-001-00201		OP	31307	N SQN	1 Y Y Y Y 2 SS SS SS SS	SQN-85-001-002	NSRS	THERE IS FIBERGLASS INSULATION AT THE BOTTOM OF EACH STEAM LINE NEXT TO THE STEAM GENERATOR. CI HAS BEEN TOLD THAT THERE SHOULD BE NO INSULATION OTHER THAN MIRROR INSIDE CONTAINMENT. DECEMBER 1985 TIMEFRAME.	3.7 313.07-1
IBN-MDM-2	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	WE NEED WALL PHONES IN AREAS (TSOB, FSB, IOB, & OFFICE BUILDINGS) IF YOU ARE IN THESE AREAS YOU HAVE TO USE SOMEONE'S PHONE ON THEIR DESK.	3.9 313.09-1

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

REFERENCE [redacted] ECPS132J-ECPS132C
FREQUENCY [redacted] REQUEST
ONP - ISS[redacted] RWM

TENNESSEE VALLEY AUTHORITY
OFFICE OF NUCLEAR POWER
EMPLOYEE CONCE[redacted]OGRAM SYSTEM (ECPS)
EMPLOYEE CONCERN INFOR[redacted]N BY CATEGORY/SUBCATEGORY
SUBCATEGORY: 313 PLANT IMPROVEMENTS/SUGGESTIONS

RUN TIME - 13:
RUN DATE - 04/[redacted]

ATEGORY: OP PLANT OPER. SUPPORT

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	REF. SI CAT SUBCAT Section/Issu
WBN-MDM-3	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	ACCESS RAMP JUST INSIDE DOOR A56 (AU X BUILDING) IS LEANED UP AGAINST PIP ES WHEN NOT IN USE. THIS COULD EASIL Y BE KNOCKED OVER AND CAUSE INJURIES . IT SHOULD HAVE SOME TYPE OF CLAMP OR A MEANS TO CHAIN IT TO THE WALL.	3.9 313.09-
WBN-0026	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	CI SUGGESTS A BETTER WAY TO DRAIN HE ATING AND COOLING COILS.	3.9 313.09-
WBN-0040	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	CI SUGGESTS DESIGNATED PARKING SPACE IN FRONT OF PLANT FOR THOSE PEOPLE WHO USE NO SICK LEAVE.	3.9 313.09-
WBN-0057	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	THESE FORMS ARE NOT PROPERLY DESIGNE D TO ALLOW PROPER AMOUNT OF ROOM TO DESCRIBE MOST SAFETY CONCERNS.	3.9 313.09-
WBN-0059	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	CI CONCERNED THAT THE SECURITY OR CO NFIDENCE OF THE EMPLOYEE CONCERNS PR OGRAM COULD BE BREECHED, AND THAT TH E PRACTICE OF THE COMPUTER NOT LOGGI NG OFF WHEN IT TIMES OUT IS INEFFICI ENT.	3.9 313.09-
WBN-0063	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	THE INST. SHOP NEEDS TWO VEHICLES, O NE SMALL CAR FOR ERRANDS FOR ENG. AN D IMS. A SECOND VEHICLE CAPABLE OF C ARRYING SIX PEOPLE WITH SEAT BELTS F OR EVERYONE AND MTE THAT WOULD BE NE EDED. THE VEHICLE WE HAVE NOW WILL ONLY CARRY TWO PEOPLE LEGALLY DUE TO ONLY TWO SEAT BELTS BEING IN THE CA R.	3.9 313.09-
WBN-0127	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	A PLAN VIEW DRAWING FOR EACH FLOOR E LEV. SHOWING ONLY WALLS, COLUMN LINE S, AND SYMBOLS FOR LOCATIONS OF 1) S ER AIR, 2) DEMIN WATER, 3) SER WATER , 4) WELDING MACHINE OUTLETS, AND PE RMANENTLY POSTED AT CONVENIENT LOCAT IONS WOULD BE VERY HELPFUL AND SAVE ALOT OF TIME SPENT LOOKING FOR THEM.	3.9 313.09-

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

TENNESSEE VALLEY AUTHORITY
OFFICE OF NU[redacted]AR POWER
EMPLOYEE CONCERN P[redacted]M SYSTEM (ECPS)
EMPLOYEE CONCERN INFORMATIO[redacted] CATEGORY/SUBCATEGORY
SUBCATEGORY: 313 PLANT IMPROVEMENTS/SUGGESTIONS

EGORY: OP PLANT OPER. SUPPORT

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION	REF. SECTI CAT - 0 SUBCAT - 3 Section/Issue
BN-0131	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	CI SUGGESTS PAVING AND FENCING AREA BEHIND POWER STORES ADJACENT TO LOADING DOCK.	3.9 313.09-4
BN-0134	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	INSTALL FLOOR DRAIN OR A WAY TO DRAIN SPILLS IN THE NON RECLAIN WASTE TANK ROOM ON EL 670 OF THE TURBINE BUILDING.	3.9 313.09-5
BN-0135	01	OP	31309	N WBN	1 N N Y Y 2 NA NA SR SR		OECP	WBN SHOULD INVEST IN BOTH POLAROID CAMERAS AND PORTABLE VCR CAMERAS FOR PERIODS OF TIME WHEN MODIFICATION OR MAINTENANCE WORK IS TO BE DONE IN A HIGH RADIATION AREA. PICTURES OR MOVIES COULD BE REVIEWED BEFORE HAND BY ALL WHO WILL WORK ON ITEM TO HELP KEEP EXPOSURE DOWN AND TO HELP COORDINATE BETWEEN GROUPS GOING INTO AREA.	3.9 313.09-26
BN-0170	01	OP	31303	N WBN	1 N N N Y 2 NA NA NA SR		OECP	FIRE HOSE HAS BEEN PULLED FROM RACK AT EL.801 AZ 260 IN ANNULUS, HOSE IS PILED ON TOP OF CONTAINMENT PURGE ISOLATION VALVE.	3.3 313.03-5
BN-0192	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA SR		OECP	FAB FOUR WHEEL CART TO HOLD POWPAK WELDER & HALF OR 1/4 SIZE ARGON TANK - THIS WILL ALLOW ACCESS TO ANY PORT OF PLANT IN LESS THAN 30 MINUTES FOR WELD REPAIR AND WILL HELP LIMIT ALARA.	3.9 313.09-23
BN-0211	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	THERE IS INSUFFICIENT WINDOW SPACE AT THE M&TE TOOL ROOM ISSUE COUNTER. ENLARGE EXISTING WINDOW OR ADD ANOTHER WINDOW FOR MORE EFFICIENT SERVICE.	3.9 313.09-18

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

FERENCE - [redacted]S132J-ECPS132C
EQUENCY - [redacted]UEST
P - ISSS - [redacted]

TENNESSEE VALLEY AUTHORITY
OFFICE OF NU[redacted]AR POWER
EMPLOYEE CONCERN P[redacted]M SYSTEM (ECPS)
EMPLOYEE CONCERN INFORMATI[redacted] CATEGORY/SUBCATEGORY
SUBCATEGORY: 313 PLANT IMPROVEMENTS/SUGGESTIONS

EGORY: OP PLANT OPER. SUPPORT

REF. SECTI
CAT - 0
SUBCAT - 3

CONCERN NUMBER	CAT	SUB CAT	SHRD	PLT LOC	1 REPORT APPL 2 SAF RELATED BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION	Section/Issue
3N-0220	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA SR		OECP	IN THE BORIC ACID EVAPORATOR ROOM TH ERE ARE PIPE PLUGS IN THE INSTRUMENT LINES THAT MUST BE REMOVED AND THEN INSTRUMENT CONNECTIONS MADE TO DO A CALIBRATION. CI SUGGESTS THAT PERMA NENT FITTINGS WITH CAPS BE INSTALLED . THIS WILL REDUCE TIME FOR ALARA.	3.9 313.09-19
3N-0226	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	CI SUGGESTS THAT (TLD AND DOSIMETRY) BADGES BE TAKEN UP AND PUT IN A SAF E PLACE WHERE THEY CAN BE WATCHED AN D CONTROLLED BY SOMEONE, TO BE ISSUE D TO EMPLOYEE.	3.9 313.09-11
BN-0228	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA SR		OECP	CI SUGGESTS THAT THE BRIDGE CRANE IN THE UNIT #1 REACTOR BUILDING BE PAI NTED AS THIS WOULD HELP KEEP RADIOAC TIVE CONTAMINATION FROM BECOMING FIX ED CONTAMINATION. ALSO, PAINTING TH E CRANE WOULD MAKE IT EASIER TO DECO N IF EVER NEEDED.	3.9 313.09-6
BN-0229	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA SR		OECP	CI SUGGESTS THAT THE REVERSE OSMOSIS ROOM FLOOR BE PAINTED. THIS WOULD MAKE THE FLOOR EASIER TO DECON IF IT EVER NEEDS TO BE DECON.	3.9 313.09-6
BN-0233	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA SR		OECP	SUGGEST PUTTING A PLEXIGLASS COVER A ROUND THE UNIT 1 BRIDGE CRANE LIFTIN G MAST. THIS WOULD HELP CUT THE RAD IATION DOSE RATES DOWN AND HELP TO K EEP PERSONNEL FROM BECOMING CONTAMIN ATED.	3.9 313.09-12
BN-0246IS	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	THE PRESENT GUARD SHACK TO NUCLEAR P OWER LOT HAS 2 LANES OF TRAFFIC TO A SINGLE LANE WITH POSSIBLE HEAD ON C OLLISION. REPLACE THE EXISTING GUAR D SHACK WITH A MILITARY STYLE BUILDI NG, TWO LANES ON EACH SIDE, WITH CAR S TO STOP ON THE INSIDE.	3:9 313.09-13

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

TENNESSEE VALLEY AUTHORITY
OFFICE OF N[redacted]AR POWER
EMPLOYEE CONCERN P[redacted]AM SYSTEM (ECPS)
EMPLOYEE CONCERN INFORMATI[redacted]Y CATEGORY/SUBCATEGORY
SUBCATEGORY: 313 PLANT IMPROVEMENTS/SUGGESTIONS

EGORY: OP PLANT OPER. SUPPORT

REF. SECTI
CAT - 0
SUBCAT - 3

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	Section/Issue
BN-0251	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA SR		OECP	THE OIL LEVEL GAGES ON THE RCP'S ARE LOCATED ON THE PUMP ITSELF. IT SHO ULD BE MOVED OUTSIDE OF WALL TO MAKE READING SAFER.	3.9 313.09-16
BN-0286PS	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	THERE ARE NO EMERGENCY LIGHTS IN THE RESTROOM ON UPPER LEVEL OF FSB.	3.9 313.09-7
BN-0290	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA SR		OECP	PHOTOGRAPHS AS WELL AS DRAWINGS, MAP S, ETC.. SHOULD BE USED IN ALL JOB P RE-PLANNING FOR BETTER EFFICIENCY & ALARA	3.9 313.09-26
BN-0295	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA SR		OECP	CI SUGGESTS THAT CONTROL STATION BOX 1-JB-293-3117 BE MOVED FROM INSIDE CONTAINMENT TO THE ACCESS ROOM ON EL 713 FOR ALARA PURPOSES.	3.9 313.09-31
BN-239IS	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	CI WOULD LIKE TO SEE A TI ISSUED IDE NTIFYING ALL TECH SPEC INSTRUMENTS W HICH ARE CALIBRATED.	3.9 313.09-14
BN-240	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA SR		OECP	THE RESPONSIBILITY FOR CHANGING FILT ER PAPER ON SYSTEM 90, RADIATION CON TINUOUS AIR MONITORS, SHOULD BE ASSI GNED TO HP RATHER THAN INSTR. MAINT. DUE TO SOURCES INVOLVED AND HP HAS TO BE PRESENT ANYWAY. THIS IS ALREA DY DONE BY HP AT SQN AND BFN. INVOL VING ONE CRAFT WOULD REDUCE EXPOSURE S.	3.9 313.09-25
BN-244NS	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	SINCE PARTS LISTS ARE REVIEWED AND C HANGED THE ENGINEERS SHOULD BE RESPO NSIBLE FOR ORDERING PARTS. THERE IS A BIG DELAY IN RECEIVING PARTS DUE TO THIS REVIEW AND CHANGE PROCEDURE. IF THE ENGINEERS ORDERED PARTS THE DELAY SHOULD BE ELIMINATED.	3.9 313.09-15

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

FERENCE [redacted]S132J-ECPS132C
EQUENCY [redacted]QUEST
IP - ISSS - RMM

TENNESSEE VALLEY AUTHORITY
OFFICE OF N[redacted]AR POWER
EMPLOYEE CONCERN P[redacted]AM SYSTEM (ECPS)
EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY
SUBCATEGORY: 313 PLANT IMPROVEMENTS/SUGGESTIONS

TEGORY: OP PLANT OPER. SUPPORT

REF. SECTI
CAT - 0
SUBCAT - 3

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	Section/Issue
BN-245	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	PANEL'S 1-L-398 AND 1-RE-90-403 IN A DDITIONAL EQUIPMENT BUILDING 729 NEE DS A SHIELD MADE OF ANY ACCEPTABLE M ATERIAL TO BE PLACED ABOVE THE PANEL S TO PROTECT THE SENSITIVE INTERNALS FROM DEBRIS AND DUST FALLING THROUG H GRATING FROM ABOVE.	3.9 313.09-28
BN-85-002PI	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	CI HAS RECOMMENDED METHOD OF REDUCIN G MAINTENANCE COSTS ON DOOR A57 (DOO R BETWEEN AUX. BUILDING AND SERVICE BUILDING ON EL 713.	3.9 313.09-30
BN-85-004	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA NO		OECP	PAINT STENCILS ON ALL TVA STRETCHER BLANKETS. THERE HAS BEEN AN ONGOING PROBLEM OF STRETCHER BLANKETS BEING REMOVED.	3.9 313.09-22
BN-85-008	01	OP	31309	N WBN	1 N N N Y 2 NA NA NA SR		OECP	CI HAS RECOMMENDED METHOD OF REDUCIN G RADIATION EXPOSURE (ALARA) FOR TES T WHICH IS CONDUCTED ON A FREQUENT B ASIS. CI SUGGESTS FABRICATING AND L EAVING COMPONENTS IN A LOCKED CABINE T IN THE VICINITY OF THE EQUIPMENT B EING TESTED.	3.9 313.09-08 313.09-19 313.09-20 313.09-21
NI -85-064-00701 T50221	OP	31305	N WBN	1 N N N Y 2 NA NA NA NO		QTC	CI WAS TOLD BY ANOTHER TVA EMPLOYEE THAT TVA DUMPED RAW SEWAGE INTO THE RIVER AT WATTS BAR NUCLEAR PLANT FOR APPROXIMATELY 6 WEEKS. THIS OCCURR ED SEVERAL YEARS AGO. DETAILS KNOWN TO QTC, WITHHELD DUE TO CONFIDENTIA LITY. NO FURTHER INFORMATION CAN BE RELEASED. CI HAS NO FURTHER INFORM ATION. CONST. DEPT. CONCERN.	3.5 313.05-3

56 CONCERNS FOR CATEGORY OP SUBCATEGORY 313

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

MISCELLANEOUS

List of Concerns by Element/Issue

The Miscellaneous Subcategory (31300) is comprised of 56 concerns grouped into nine elements addressing 52 issues.

Element 313.01 - Personnel Safety (working alone)

Issue 313.01-1 - Personnel Working Alone

IN-85-509-001

Element 313.02 - Personnel Safety (Hardware)

Issue 313.02-1 - Burned Out Lights in Stairwell

RMM-85-001
RMM-85-002

Issue 313.02-2 - Difficulty in Opening Door

IN-86-197-001

Element 313.03 - Housekeeping

Issue 313.03-1 - Vacuum Cleaners Too Large

SQN-86-001-001

Issue 313.03-2 - Containment Not Clean Enough for Fuel Loading

IN-85-675-001

Issue 313.03-3 - Unit #1 Auxiliary Building and Containment Not Clean

IN-85-675-001
IN-85-758-002

Issue 313.03-4 - Cleaning Fluid Containers Not Labeled

IN-86-221-004

Issue 313.03-5 - Fire Hose Not Properly Stowed

WBN-0170

Element 313.04 - Environmental

Issue 313.04-1 - Hydrazine Flushed Into Holding Pond.

IN-85-940-X01
IN-86-190-004

Issue 313.04-2 - Fuel Oil Spill Due to Inaccurate Level Indication

IN-86-055-001
IN-86-018-001

Issue 313.04-3 - Fuel Oil Spill Due to Operator Error

IN-86-055-001
IN-86-018-001

Issue 313.04-4 - Leak in Raw Water Discharge Piping

RII-86-A-0022

Issue 313.04-5 - Burial of Toxic Substance

RII-86-A-0100

Issue 313.04-6 - Use of Fuel Oil to Burn Wood

RII-86-A-0100

Element 313.05 - Sewage Treatment

Issue 313.05-1 - Raw Sewage Draining From Manhole Covers

IN-85-136-001
IN-85-307-001
IN-85-753-001

Issue 313.05-2 - Inadequate Operation of Raw Water Chlorination System

IN-85-136-002

Issue 313.05-3 - Dumping of Raw Sewage Into Tennessee River

WI-85-064-007

Element 313.06 - Questionable Concrete Repair (Grout)

Issue 313.06-1 - Use of Laborers Instead of Cement Masons

IN-86-217-001

Issue 313.06-2 - Use of grout for concrete repairs

IN-86-221-002
IN-86-221-003

Element 313.07 - SQN Insulation

Issue 313.07-1 - Improper Use of Fiberglass Insulation

SQN-85-001-002

Element 313.08 - BFN High Pressure Coolant Injection (HPCI) System

Issue 313.08-1 - High Pressure Coolant Injection System Unreliable

BFN-86-019-001

Element 313.09 - Plant Improvements/Suggestions

Issue 313.09-1 - Install Wall Mounted Telephones

WBN-MDM-2

Issue 313.09-2 - Assign Designated Parking Space For Employees Who Do Not Use Sick Leave

WBN-0040

Issue 313.09-3 - Not Enough Room For Complaints on Forms

WBN-0057

Issue 313.09-4 - Paving Additional Area by Power Stores

WBN-0131

Issue 313.09-5 - Install Floor Drain

WBN-0134

Issue 313.09-6 - Paint Bridge Crane and Reverse Osmosis Room Floor For Easier Decontamination

WBN-0228
WBN-0229

Issue 313.09-7 - Install Emergency Lighting In Restroom

WBN-0286PS

Issue 313.09-8 - Fabricate Test Hoses and Leave at Test Site in Locked Box

WBN-85-008

Issue 313.09-9 - Need For Additional Vehicles

WBN-0063

Issue 313.09-10 - Need Plant Drawing of Service Outlets Permanently Posted

WBN-0127

Issue 313.09-11 - Better Control of TLD and Dosimeter Badges

WBN-0226

Issue 313.09-12 - Placement of Plexiglass Cover Around Crane Mast

WBN-0233

Issue 313.09-13 - Change Guard Shack Location to Alleviate Traffic Problems

WBN-0246IS

Issue 313.09-14 - Issue Technical Instruction Listing Instruments Needing Calibration

WBN-239IS

Issue 313.09-15 - Engineers Should Order Spare Parts

WBN-244-NS

Issue 313.09-16 - Relocate Oil Gauge on RCPs

WBN-0251

Issue 313.09-17 - Confidentiality of Employee Concerns Program

WBN-0059

Issue 313.09-18 - Enlarge Window at Tool Issue Room
WBN-0211

Issue 313.09-19 - Install Permanent Test Connections

WBN-0220
WBN-85-008

Issue 313.09-20 - Paint Area Indicating Placement of Temporary Differential Pressure Transmitters

WBN-85-008

Issue 313.09-21 - Allow Access to Cables in Raceway

WBN-85-008

Issue 313.09-22 - Paint Stencils on Stretcher Blankets

WBN-85-004

Issue 313.09-23 - Fabricate Four-wheel Cart to Carry Welding Equipment

WBN-0192

Issue 313.09-24 - Steam Generator Floor Grating Needs to be Extended

IN-85-872-001

Issue 313.09-25 - Assign Responsibility for Filter Paper Change to Health Physics

WBN-240

Issue 313.09-26 - Provide Cameras and Photos to Assist in Work in High Radiation Areas

WBN-0135
WBN-0290

Issue 313.09-27 - Need to Install Clamp to Hold Ramp

WBN-MDM-3

Issue 313.09-28 - Need Shields to Cover Electrical Panels

WBN-245

Issue 313.09-29 - Install Drain on Heating and Cooling Coils

WBN-0026

Issue 313.09-30 - Recommendation to Reduce Door Maintenance

WBN-85-002PI

Issue 313.09-31 - Relocate Control Box to Access Room

WBN-0295

Checklist for Root Cause Analysis

1. Procedure lacks specifics to perform task.
2. Personnel lack sufficient training in the applicability/use of procedure.
3. Lack of understanding regulatory requirements or commitments.
4. Lack of adequate system, process, or administrative controls to ensure commitments are reflected in procedures or processes.
5. Inadequate communication within functional group.
6. Inadequate communication between functional groups.
7. Management Assumed Risk.
8. Procedures incomplete or failed to incorporate all technical requirements.
9. Error in judgment by qualified individuals.
10. Unqualified individuals performing the task.
11. Insufficient time to perform task.
12. Inadequate prerequisites defined to ensure satisfactory completion of task.
13. Personnel performed task knowingly in violation of procedure/process.
14. Personnel error in following procedures.
15. Failed to identify root cause of previous deficiencies.
16. Failed to take appropriate action to preclude reoccurrence.
17. Inadequate process to detect adverse trends.
18. Inadequate acceptance criteria defined to ensure satisfactory task completion.
19. Management attentiveness to trends.
20. Lack of accessibility to documentation.
21. Inadequate controls for review of results to ensure compliance with commitments.
22. Timeliness of changes to commitments or changes to licensing/regulatory requirements.
23. Isolated incident.
24. Random error.
25. Other - i.e., equipment related failure.

SUMMARY OF SYMPTOMS AND ROOT CAUSES

Element 313.03, Housekeeping

For this element, the potential for negative findings at the subcategory level was exhibited by the symptom of inadequate material control at WBN (cleaning solvents). The testing of the symptom pointed to the following two root causes for WBN:

a. Procedures incomplete or failed to incorporate all technical requirements

b. Inadequate acceptance criteria defined to ensure satisfactory task completion

Element 313.04, Environmental

For this element, the potential for negative findings at the subcategory level was exhibited by the following symptoms: (a) inadequate design for fuel oil storage tank level indicators, (b) inadequate work control (fuel oil transfer), (c) inadequate operational controls (fuel oil transfer), and (d) operational error (fuel oil transfer). These four symptoms were determined for WBN only, and they led to the following root causes:

a. Error in judgment by qualified individual.

b. Inadequate controls for review of results to ensure compliance with commitments.

c. Lack of adequate system, process, or administrative controls to ensure commitments are reflected in procedures or processes.

d. Inadequate acceptance criteria defined to ensure satisfactory task completion.

e. Personnel lack sufficient training in the applicability/use of procedure.

f. Procedures incomplete or failed to incorporate all technical requirements.

Element 313.06, Questionable Concrete Repair (Grout)

For this element, the potential for negative findings at the subcategory level was exhibited by the following two symptoms: (a) inadequate control of repair activities at WBN (concrete and grout), and (b) failure of ONP at SQN and BFN to recognize the need to comply with specifics of general construction specifications with respect to concrete and grout. As these symptoms were tested for root cause, the appropriate root causes and applicable plant sites were judged to be as follows:

a. Lack of understanding regulatory requirements or commitments (WBN)

b. Lack of adequate system, process, or administrative controls to ensure commitments are reflected in procedures or processes (WBN, SQN, BFN)

c. Inadequate communication between functional groups (WBN, SQN, BFN)

d. Procedures incomplete or failed to incorporate all technical requirements (WBN)

e. Unqualified individual performing the task of grout repairs (WBN)

Element 313.09, Plant Improvements/Suggestions

For this element, the potential for negative findings at the subcategory level was exhibited by the symptom of incomplete resolution of employee suggestions at WBN. The testing of this symptom led to the following root causes for WBN:

a. Inadequate communication within functional group

b. Insufficient time to perform task (priorities prevent suggestions from being done)

No analysis for root cause was required in the remaining elements of the subcategory because no symptoms of problems were readily apparent.

The analysis of the symptoms and root causes for these elements is depicted graphically in Attachments E, F, and G. Attachment E is a plot of each element's symptoms versus the root causes pointed out by the symptom. Root cause numbers on the horizontal axis correspond to the 25 items on the "Checklist for Root Cause Analysis" found in Attachment C. Attachment F contains bar graphs showing the number of times each of the symptoms identified for the subcategory occurs for the various plants. Symptom numbers on the horizontal axis in this attachment correspond to the symptoms as listed in Attachment E. Attachment G contains bar graphs showing the number of times each root cause appears in the subcategory for the various plants.

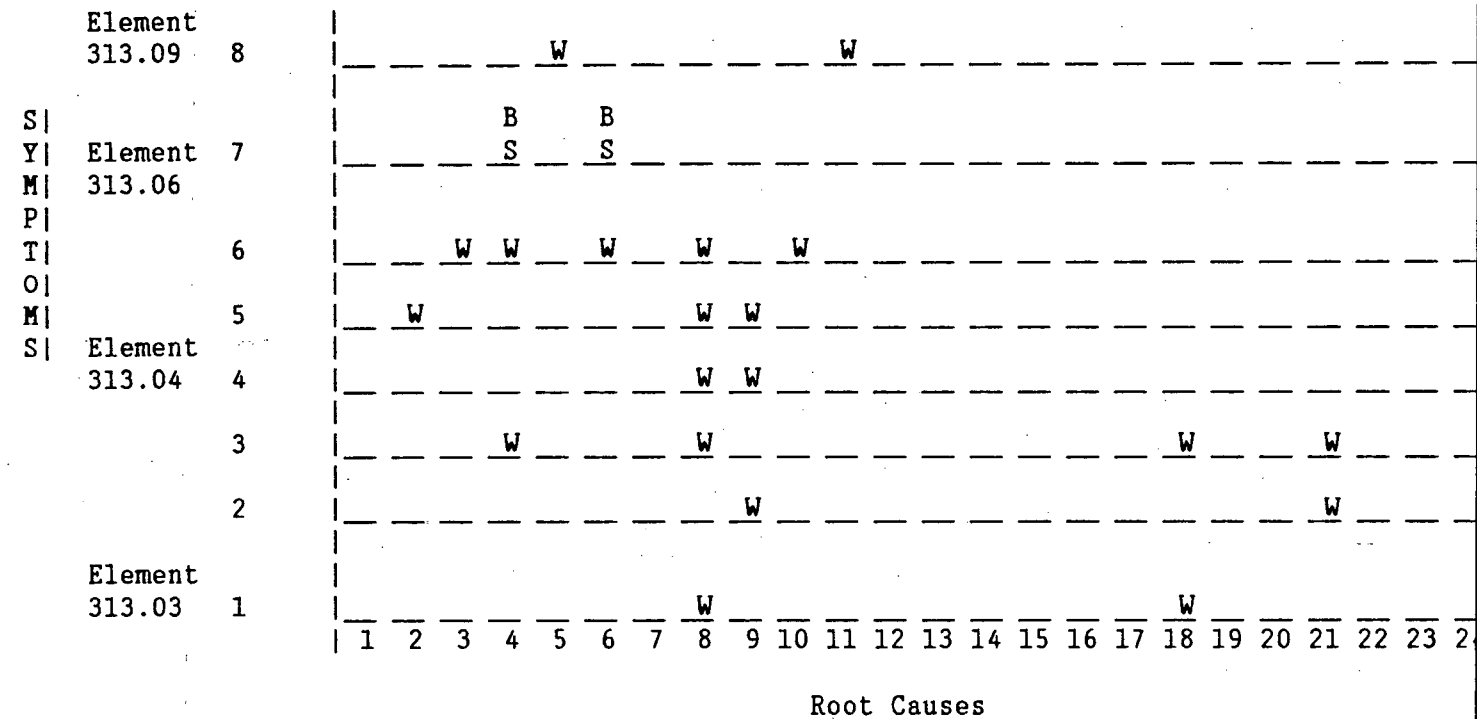
Several observations can be made in studying these attachments. It can be seen from Attachments E and F that BFN and SQN have a common symptom. This symptom is failure of ONP to recognize the need to comply with specific General Construction Specifications with respect to concrete and grout. Next, Attachments E and G show that there were two root causes which occurred at each of the three TVA nuclear power plants (WBN, SQN, BFN): (a) lack of adequate system, process, or administrative controls to ensure commitments are reflected in procedures or processes, and (b) inadequate communication between functional groups. WBN had several other root causes which appear more than once. Root causes which appear three times at WBN are: (a) procedures incomplete or failed to incorporate all technical requirements, and (b) error in judgment by qualified individual. A last root cause was indicated twice for WBN. This root cause was inadequate controls for review of results to ensure compliance with commitments.

ATTACHMENT E
SYMPTOMS VS ROOT CAUSES
SUBCATEGORY 313

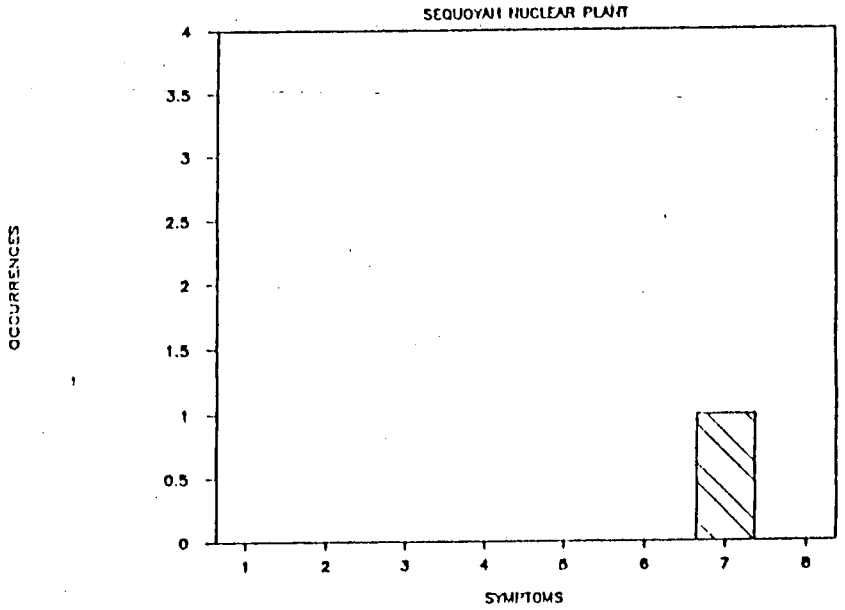
Symptoms

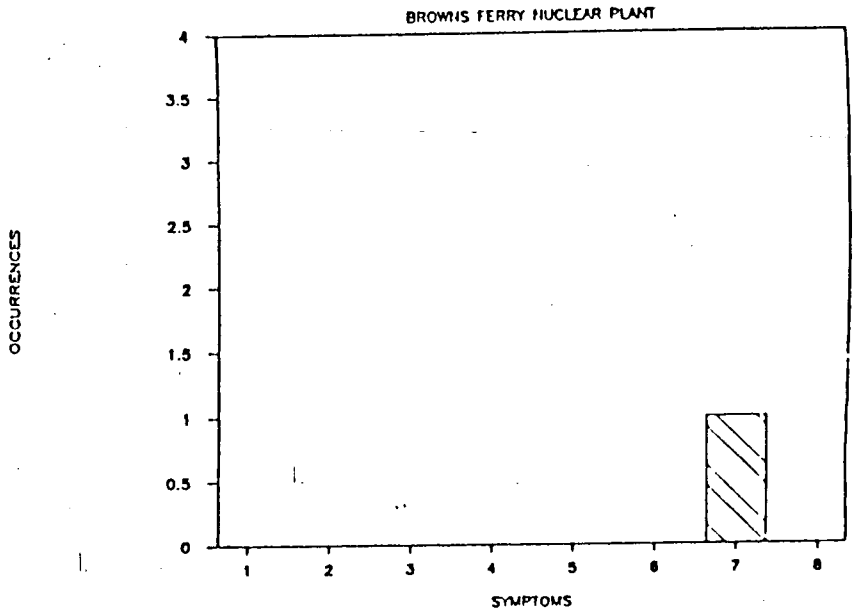
1. Inadequate material control (cleaning solvents)
2. Inadequate design for fuel oil storage tank level indicators
3. Inadequate work control (fuel oil transfer)
4. Inadequate operational controls (fuel oil transfer)
5. Operational error (fuel oil transfer)
6. Inadequate control of repair activities (concrete and grout)
7. Failure of ONP to recognize need to comply with specifics of general construction specifications with respect to concrete and grout
8. Incomplete resolution of employee suggestions

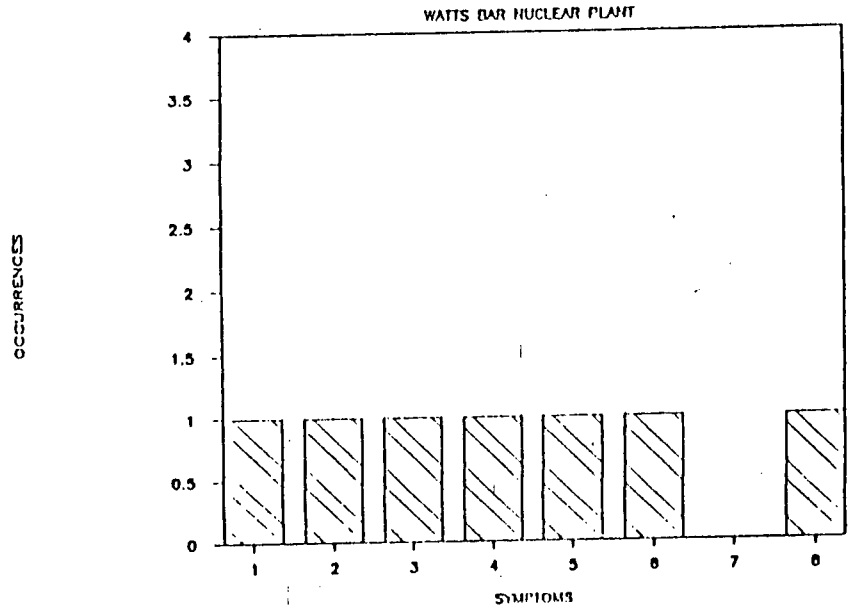
KEY: W = WBN
S = SQN
B = BFN
L = BLN

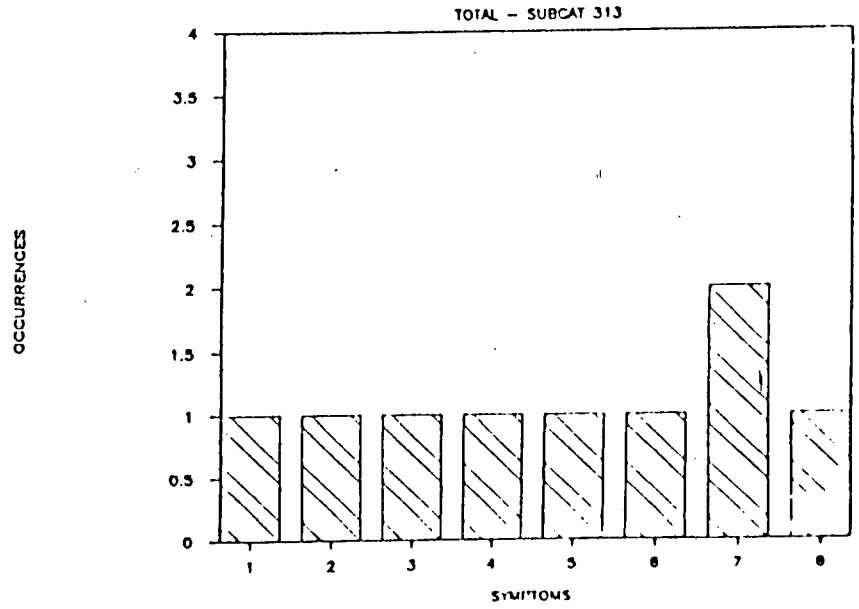


OCCURRENCES VS SYMPTOMS





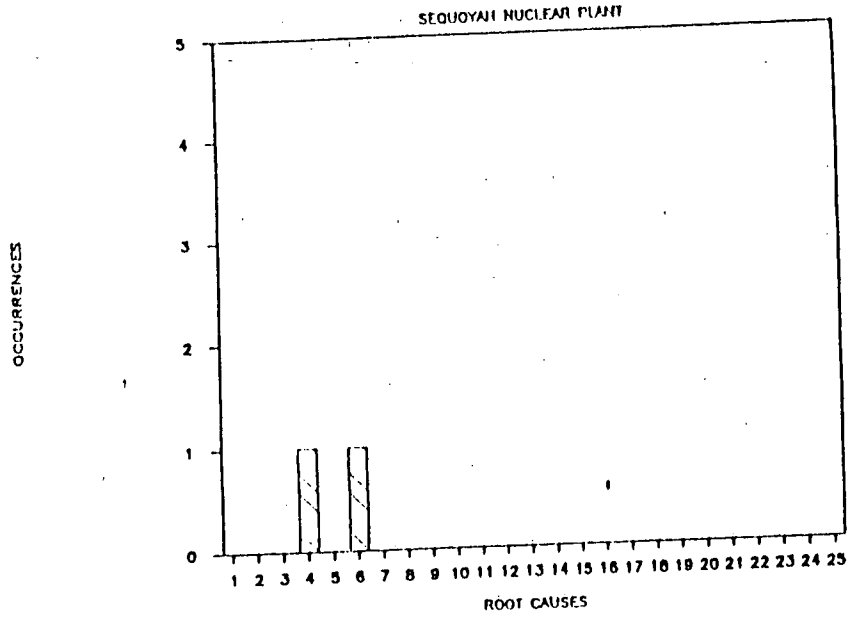


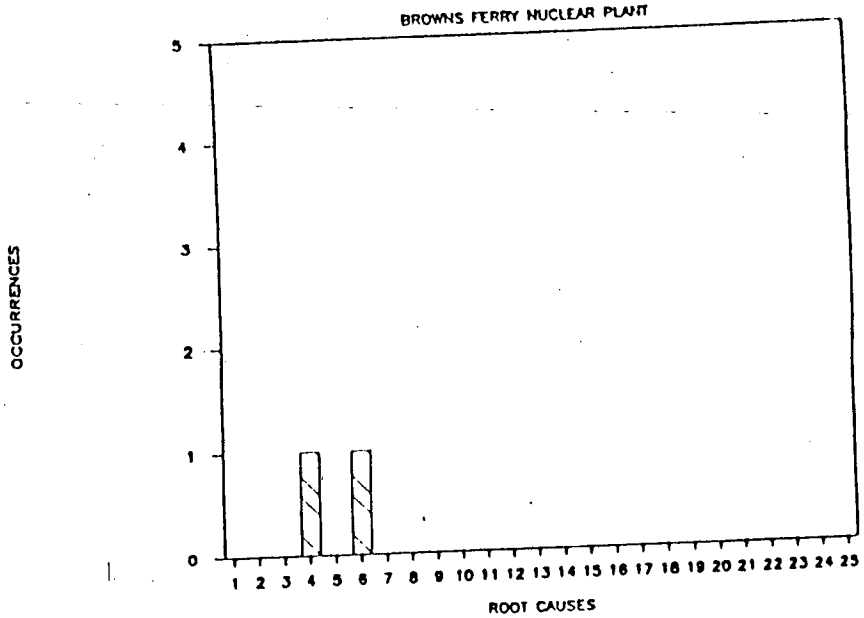


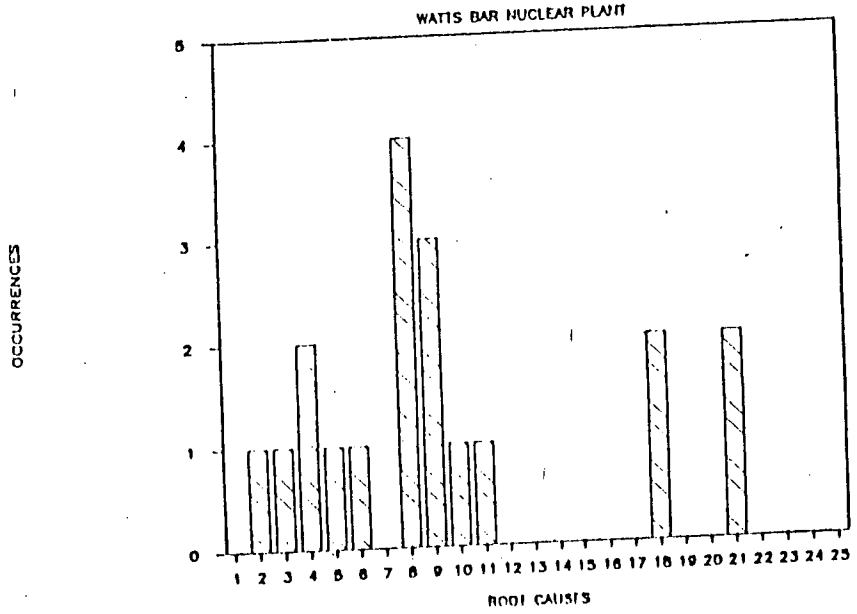
ATTACHMENT F

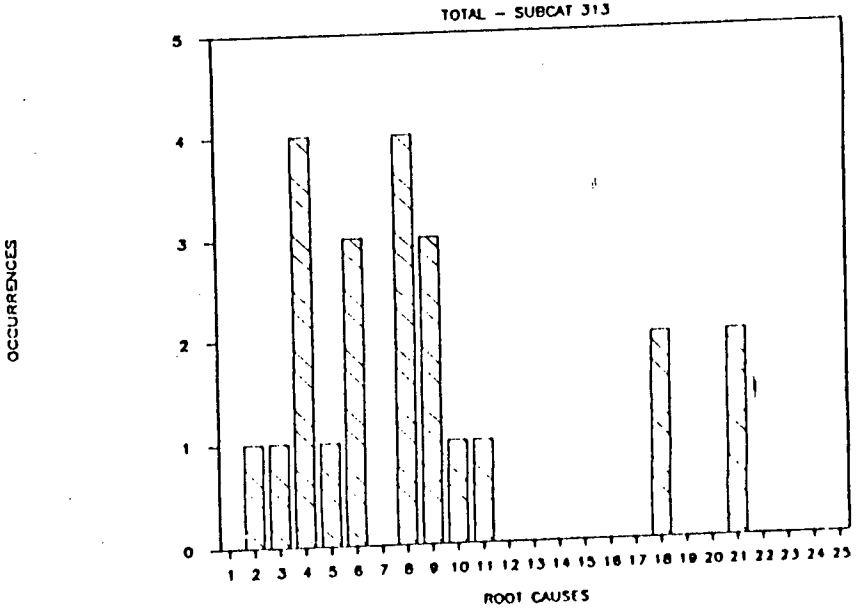
31300 Revision 2

OCCURRENCES VS ROOT CAUSES









ATTACHMENT G
31300
Revision 2

CORRECTIVE ACTION TRACKING DOCUMENTS (CATDs)

CATD Number	Response Received/Approved
31300-NPS-01	Yes
31300-NPS-02	Yes
31303-NPS-01	Yes
31303-WBN-01	Yes
31304-WBN-01	Yes
31304-WBN-02	Yes
31305-WBN-01	Yes
31306-WBN-01	Yes
31306-SQN-01	Yes
31306-SQN-02	Yes
31306-SQN-03	Yes
31306-SQN-04	Yes
31306-BFN-01	Yes
31306-BFN-02	Yes
31307-BFN-01	Yes
31309-WBN-01	Yes
31309-WBN-02	Yes
31309-WBN-03	Yes
31309-WBN-04	Yes
31309-WBN-05	Yes
31309-WBN-06	Yes
31309-WBN-07	Yes

ECTG Corrective Action Tracking Document (CATD)

INITIATION

Applicable ECTG Report No.: 31300

1. Immediate Corrective Action Required: ☐ Yes ☑ No
2. Stop Work Recommended: ☐ Yes ☑ No
3. CATD No. 31300-NPS-01
4. INITIATION DATE 04/20/87
5. RESPONSIBLE ORGANIZATION: TVA Corporate Management
6. PROBLEM DESCRIPTION: ☑ QR ☐ NQR As noted in the findings and collective significance sections of report 31300, there has been a lack of corporate control over the implementation of Design/ Construction standards and requirements into operations activities at BFN and SQN relative to concrete and grout repairs.

☐ ATTACHMENTS

7. PREPARED BY: NAME Eric G. Shewbridge DATE: 04/20/87
8. CONCURRENCE: CEG-H W. R. Sagan DATE: 5-8-87
9. APPROVAL: ECTG PROGRAM MGR. R. D. Gill for DATE: 5/11/87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: see attached

During closeout process verify CAQR initiated. WWM 7/13/87

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: I41 870709 947 DATE:
12. CONCURRENCE: CEG-H: W. R. Sagan DATE: 7-13-87
ECTG PROGRAM MANAGER W. R. Sagan for DATE: 7-13-87

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE _____ TITLE _____ DATE _____

4377T

ECTG Corrective Action Tracking Document (CATD)

INITIATION

Applicable ECTG Report No.: 31300

1. Immediate Corrective Action Required: ☐ Yes ☑ No
2. Stop Work Recommended: ☐ Yes ☑ No
3. CATD No. 31300-NPS-02
4. INITIATION DATE 04/20/87
5. RESPONSIBLE ORGANIZATION: TVA Corporate Management
6. PROBLEM DESCRIPTION: ☐ QR ☑ NQR As noted in the findings and collective significance sections of report 31300, there have been instances of inadequate corrective action response and follow-through by line managers at WBN and BFN. See repat for details.

☐ ATTACHMENTS

7. PREPARED BY: NAME Eric G. Shewbridge DATE: 04/20/87
8. CONCURRENCE: CEG-H W.K. Sorrell DATE: 5-8-87
9. APPROVAL: ECTG PROGRAM MGR. [illegible] for DATE: 5/11/87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN:

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: T 4187070894 DATE: —
12. CONCURRENCE: CEG-H: W.K. Sorrell DATE: 7-10-87
ECTG PROGRAM MANAGER W.K. Sorrell for DATE: 7-10-87

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE _____ TITLE _____ DATE _____

4377T

ECSP Corrective Action Tracking Document (CATD)

INITIATION Applicable ECSP Report No.: 313.03 WBN-(Draft)

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. 31303-NPS-01 4. INITIATION DATE 2-2-87
5. RESPONSIBLE ORGANIZATION: DNE-Corporate
6. PROBLEM DESCRIPTION: ☒ QR ☐ NQR During evaluation of a concern in fact sheet number 313.03 WBN, relating to the controlled use and labeling of chemical cleaning agents, solvent etc. It was found that each TVA site has a site specific program to address this issue however, no corporate program exists to address the control use of chemicals and their labeling requirements for use such as, system compatibility etc.

☐ ATTACHMENTS

7. PREPARED BY: NAME [signature] DATE: 2-9-87
8. CONCURRENCE: CEG-H [signature] DATE: 2/10/87
9. APPROVAL: ECTG PROGRAM MGR. [signature] for DATE: 2/11/87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN:

See Attached CAP.

During the close out process insure that a CAQR was initiated. WEL 3-18-87

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: [signature] DATE: 3/7/87
12. CONCURRENCE: CEG-H: [signature] DATE: 3-9-87
SRP: DATE:
DATE:
DATE:
DATE:
ECTG PROGRAM MGR: DATE:

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE TITLE DATE

3075T

ECSP Corrective Action Tracking Document (CATD)

INITIATION

Applicable ECSP Report No.: 313.03 WBN-(Draft)

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. 31303-WBN-01
4. INITIATION DATE 12-23-86
5. RESPONSIBLE ORGANIZATION: Chemical Engineering-WBN
6. PROBLEM DESCRIPTION: ☒ QR ☐ NQR See attached fact sheet for 313.03 WBN. WBN Standard Practice WB9.47 does not adequately address positive identification of containers which hold approved CSSC cleaning solvents and tie together TI-35 and the SILs. This issue was previously recommended by NSRS report I-85-484-WBN-01.

☒ ATTACHMENTS

7. PREPARED BY: NAME Richard Gunnels DATE: 2-2-87
8. CONCURRENCE: CEG-H Thomas F. Huth DATE: 2/10/87
9. APPROVAL: ECTG PROGRAM MGR. D.W. Stewart, for DATE: 2/4/87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN:

SEE ATTACHED CAP

During close out process issue CAQR was initiated WBL 3-19-87

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: SEE ATTACHED CAP DATE:
12. CONCURRENCE: CEG-H: D.E. Supervisor DATE: 3-7-87
SRP: DATE:
DATE:
DATE:
DATE:
ECTG PROGRAM MGR: DATE:

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE | TITLE | DATE

3075T

ECSP Corrective Action Tracking Document (CATD)

INITIATION

Applicable ECSP Report No: 313.04-WBN

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. 31304-WBN-01 4. INITIATION DATE 1-27-87
5. RESPONSIBLE ORGANIZATION: Operations
6. PROBLEM DESCRIPTION: ☐ QR ☒ NQR
Oil was being transferred from the seven-day tank 1-AA to the seven-day OC-S tank in the fifth diesel. No procedure exists to perform this task. An oil spill resulted from this activity.

☒ ATTACHMENTS

7. PREPARED BY: NAME Willie R. Mills, Jr. DATE: 1-27-87
8. CONCURRENCE: CEG-H Thomas F. Hutton for WRL DATE: 1-27-87
9. APPROVAL: ECTG PROGRAM MGR. Duke Power for DATE: 1-31-87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN:

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: Whitney L. Dale DATE: 2/7/87
12. CONCURRENCE: CEG-H: Thomas F. Hutton for WRL DATE: 2/18/87
SRP: DATE:
DATE:
DATE:
DATE:
ECTG PROGRAM MGR: DATE:

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE | TITLE | DATE

ECSP Corrective Action Tracking Document (CATD)

INITIATION — Applicable ECSP Report No: 313.04-WBN

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. 31304-WBN-02 4. INITIATION DATE 1-27-87
5. RESPONSIBLE ORGANIZATION: Maintenance
6. PROBLEM DESCRIPTION: ☐ QR ☒ NQR
An extension MR search failed to find an MR initiated in February, 1985 MRs A400390 and A575520. Without these MRs it was impossible to determine if adequate corrective action was taken to preclude future oil spills.

☒ ATTACHMENTS

7. PREPARED BY: NAME Willie R. Mills, Jr. DATE: 1-27-87
8. CONCURRENCE: CEG-H Thomas F. Hutton for WRL DATE: 1-27-87
9. APPROVAL: ECTG PROGRAM MGR. DW Stewart for DATE: 1-31-87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN:
SEE ATTACHED CAP

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: Whiting S. Delle DATE: 2/13/87
12. CONCURRENCE: CEG-H: Thomas F. Hutton for WRL DATE: 2/18/87
SRP: DATE:
DATE:
DATE:
DATE:
ECTG PROGRAM MGR: DATE:

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE | TITLE | DATE

2371T

ECSP Corrective Action Tracking Document (CATD)

INITIATION Applicable ECSP Report No.: 31305-WBN Fact Sheet R2

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. 31305-WBN-01 4. INITIATION DATE 3-24-87
5. RESPONSIBLE ORGANIZATION: DNE
6. PROBLEM DESCRIPTION: ☐ QR ☒ NQR There is a recurring problem of raw sewage overflowing from manholes in front of the Field Services Building (most recent occurence in January, 1987). DNE should initiate a review to determine if total resolution is viable at this time.

☒ ATTACHMENTS

7. PREPARED BY: NAME R E [signature] DATE: 3/25/87
8. CONCURRENCE: CEG-H for Thomas F. Huth DATE: 3/25/87
9. APPROVAL: ECTG PROGRAM MGR. [signature] for DATE: 3/25/87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: See Attached
T41 870422 804 / 326 870410 015

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: [signature] 870410 [illegible] DATE: 4-6-87
12. CONCURRENCE: CEG-H: W. K. [signature] DATE: 4/23/87
SRP: ______ DATE: ______
DATE: ______
DATE: ______
DATE: ______
ECTG PROGRAM MGR: ______ DATE: ______

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE ______ TITLE ______ DATE ______

3865T

ECSP Corrective Action Tracking Document (CATD)

Applicable ECSP Report No.: (NIA 13 OP313) 313.06-WBN

INITIATION

1. Immediate Corrective Action Required: ☐ Yes ☐ No
2. Stop Work Recommended: ☐ Yes ☐ No
3. CATD No. 31306-WBN-01
4. INITIATION DATE 11-21-86
5. RESPONSIBLE ORGANIZATION: WBN Site
6. PROBLEM DESCRIPTION: ☐ QR ☐ NQR See the notice of immediate action number 13 OP313 transmitted to WBN, Site Director, RIMS T25 860715 958 (attached)

☐ ATTACHMENTS

7. PREPARED BY: NAME Don Nixon — DATE: 11-21-86
8. CONCURRENCE: CEG-H Thomas F. Huth — DATE: 11-21-86
9. APPROVAL: ECTG PROGRAM MGR. T25 860725 958 — DATE:

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: See memo from George Toto, Site Director, WBN, RIMS T14 860818 930 (attached)

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: T14 860818 930 — DATE: 11-21-86
12. CONCURRENCE: CEG-H: Thomas F. Huth — DATE: 11-21-86
SRP: — DATE:
— DATE:
— DATE:
— DATE:
ECTG PROGRAM MGR: — DATE:

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE _____ TITLE _____ DATE _____

NOTICE OF IMMEDIATE ACTION

ORIGINAL CONCERN, CATEGORY, OR SUBCATEGORY NO.

IMMEDIATE ACTION 13 OP313

IF APPLICABLE 31300

DATE/TIME July 23, 1986 7:00 a.m.

DETAILS - UNIT, SYSTEM, LOCATION, TIME, CONDITION, ETC.

During the evaluation conducted by ECTG personnel at WBN and included in Report 313.06, the discrepancies listed on the attached were noted, and the conditions should be evaluated by WBN.

It should be noted that WBN Modification Engineering personnel has already implemented a portion of the corrective actions. However, this form should be completed for ECTG tracking purposes.

INITIATING EVALUATOR	Donald E. Nikon NAME	07-24-86 DATE
RECEIVED BY: CEG-H	Thomas F. Hurst NAME	07-24-86 DATE
REVIEWED BY:	M U Rutovi ECTG MANAGER/ASST.	7/25/86 DATE
TRANSMITTED TO:	W. T. Cottle, Site Director, WBNP LINE ORGANIZATION	7/24/86
*RECEIVED BY:		/

*NOTE: Please sign and send a copy to the ECTG Manager, noting corrective actions taken (e.g., NCRs, SCRs, CARs, MRs, etc.).

1273T

ATTACHMENT

Notice of Immediate Action 13 [illegible] 13

1. Based on the dimensions of the repairs in the following areas, replacement concrete should have been used in lieu of grout to have been in compliance with Construction Specification G-[illegible] All six of the repair areas are located in the Turbine Building

   a. 8' west of T9 and 16.5' north of H-line, elevation 685.75

   b. Approximately 5' south of G-line and approximately 3' west of T6, elevation 694.50

   c. Approximately 4'6" north of E-line and approximately 5'3" east of T6, elevation 707

   d. Approximately 2' north of F-line and approximately 3' west of T6, elevation 694.50

   e. Approximately 4'6" north of E-line and approximately 3' west of T6, elevation 696

   f. Approximately 4'6" north of E-line and approximately 3' west of T6, elevation 694

2. Required expansion material for the repairs noted in d, e, and f above was omitted.

3. Evidence that form work had sagged approximately 1 inch in one corner of area d above.

4. Chamfers had been omitted for repairs over doorways (b and d above).

   Note: Items 3 and 4 were not considered a problem since structural integrity is not affected.

Perceived Corrective Actions as Noted in Report 313.06

The three areas identified where expansion material had been omitted should be removed and formed correctly to include the required expansion material. Replacement material for the repairs should be replacement concrete of the specified class required by Construction Specification C-34 as implemented through instruction MAI-19.

The remaining areas as noted above should receive an engineering evaluation since nonconformance condition reports are not required for nonsafety-related areas. Any additional work relative to these repairs will depend on the results of the evaluation.

Note: Refer to letter (T14 860508 [illegible]03) to plant master files, WBN ONP from the Modifications Manager, dated April 29, 1986. This letter implemented the above corrective actions.

other structural repairs performed by ONP before the implementation date of instruction MAI-19 should be inspected for conformance with the requirements of MAI-19. Any nonsafety-related repair areas not conforming to requirements should receive an engineering evaluation and/or reworked as deemed necessary. Any areas found not to meet requirements in a safety-related area should be documented and dispositioned by way of a NCR.

In the event work has been performed by ONP personnel in other civil areas including backfill installation, protective coatings, and placement of structural concrete, these areas and/or implementing instructions should be evaluated by engineering to assure compliance with paragraph 17.2.3.3 of the TVA Topical Report, TVA-TR75-1A.

ECSP Corrective Action Tracking Document (CATD)

INITIATION Applicable ECSP Report No.: 313.06-SQN

1. Immediate Corrective Action Required: ☒ Yes ☐ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. 31306-SQN-01
4. INITIATION DATE 11-21-86
5. RESPONSIBLE ORGANIZATION: SQN Site Director
6. PROBLEM DESCRIPTION: ☒ QR ☐ NQR Based on a review of M&AI-17, portions were not consistent with the requirements of Construction Specifications G-34 and G-51 in that core drilled holes were not required to be scarified before installing the repair material (grout). Additionally, the 12-hour surface wetting criteria was allowed by the instruction to be reduced or waived which is contrary to G-34 and G-51 requirements where grout or drypack mortar is used.

☐ ATTACHMENTS

7. PREPARED BY: NAME Don Nixon DATE: 11-21-86
8. CONCURRENCE: for CEG-H Thomas F. Hurth DATE: 11/21/86
9. APPROVAL: ECTG PROGRAM MGR. DWStevenson Jr. DATE: 11-24-86

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: See Attached

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: 8038612 11 806 DATE: —
12. CONCURRENCE: CEG-H: W.R. Lagergren DATE: 3-20-87
SRP: _____ DATE: _____
_____ DATE: _____
_____ DATE: _____
_____ DATE: _____
ECTG PROGRAM MGR: _____ DATE: _____

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

_____ SIGNATURE _____ TITLE _____ DATE

ECSP Corrective Action Tracking Document (CATD)

INITIATION

Applicable ECSP Report No.: 313.06-SQN

1. Immediate Corrective Action Required: ☒ Yes ☐ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. 31306-SQN-02
4. INITIATION DATE 11-21-86
5. RESPONSIBLE ORGANIZATION: SQN Site Director
6. PROBLEM DESCRIPTION: ☒ QR ☐ NQR Even though implementation of in-process testing according to G-51, section 8.0, was a part of the corrective action given in Corrective Action Report SQ-CAR-86-04-022 the impact as to the effect in regard to quality has not been addressed for those installations of grout conducted previously where the in-process testing was not performed.

☐ ATTACHMENTS

7. PREPARED BY: NAME Don Nixon DATE: 11-21-86
8. CONCURRENCE: for CEG-H Thomas J. Huth DATE: 11/21/86
9. APPROVAL: ECTG PROGRAM MGR. DW Beaumont for DATE: 11-24-86

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN:

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR 8703 861211 806 DATE: —
12. CONCURRENCE: CEG-H: W. R. Rogers DATE: 3-20-87
SRP: DATE:
DATE:
DATE:
DATE:
ECTG PROGRAM MGR: DATE:

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE TITLE DATE

ECSP Corrective Action Tracking Document (CATD)

INITIATION Applicable ECSP Report No.: 313.06-SQN

1. Immediate Corrective Action Required: ☒ Yes ☐ No
2. Stop Work Recommended: ☐ Yes ☒ No Originally NIA
3. CATD No. 31306-SQN-03 4. INITIATION DATE 11-21-86
5. RESPONSIBLE ORGANIZATION: Modifications
6. PROBLEM DESCRIPTION: ☒ QR ☐ NQR Based on a review of workplans 11910 and 10821, concrete surfaces were wet sacked for 12 hours before concrete placement. This is contrary to the requirements of Construction Specification G-2, paragraph 14.2.1. This paragraph stipulates that section 7.3 for cleaning lift joints and bonding new concrete to old shall apply to all horizontal construction joints. Paragraph 7.3.8 of section 7.3 in turn stipulates that superior bonding is obtained if the surface of the lift in place is dry. Note: This is not considered a problem detrimental to quality since the workplans revealed that surfaces were scarified. Even though superior bonding may have not been obtained, acceptable bonding should have occurred if all surface water was removed.

☐ ATTACHMENTS

7. PREPARED BY: NAME Don Nixon/Tom Huth DATE: 11-21-86
8. CONCURRENCE: CEG-H William Lagergren DATE: 11-21-86
9. APPROVAL: ECTG PROGRAM MGR. T25 860725 956 DATE: 11-21-86
   Originally a notice of immediate action.

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: This requires no additional action since no problems detrimental to quality were identified. However, the addition of civil inspectors and the active involvement of the Modifications civil engineer in these types of activities give me confidence that our work performance will continue to improve.

Based on CAP no QR problem exist

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR. S02 860813 944 DATE: 11-21-86
12. CONCURRENCE: CEG-H: W. P. Lagergren DATE: 3-20-87
    SRP: _____ DATE: _____
    _____ DATE: _____
    _____ DATE: _____
    _____ DATE: _____
    ECTG PROGRAM MGR: _____ DATE: _____

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE	TITLE	DATE

2685T

ECSP Corrective Action Tracking Document (CATD)

INITIATION Applicable ECSP Report No.: 313.06-SQN

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No Originally NIA
3. CATD No. 31306-SQN-04 4. INITIATION DATE 11-21-86
5. RESPONSIBLE ORGANIZATION: Modifications
6. PROBLEM DESCRIPTION: ☐ QR ☒ NQR Workplans 11910 and 10821 specified that voids (if any) be repaired according to M&AI-17. This instruction does not incorporate or give reference to Construction Specification G-34 which is the controlling specification for concrete repair.

☐ ATTACHMENTS

7. PREPARED BY: NAME Don Nixon/Tom Huth DATE: 11-21-86
8. CONCURRENCE: CEG-H William Lagergren DATE: 11-21-86
9. APPROVAL: ECTG PROGRAM MGR. T25 860725 956 DATE: 11-21-86
   Originally a notice of immediate action.

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: Repairs to be performed by the workplans in references 1 and 2 would be considered cosmetic in nature and would have been performed using grout. No indications of repairs were found; thus, no actions are required. References to General Construction Specification No. G-34 are included in Modifications and Additions Instruction M&AI-21 (concrete placement and repair), which is currently in the revision cycle.

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: S02 860813 944 DATE: 11-21-86
12. CONCURRENCE: CEG-H: W.R. Lagergren DATE: 3-20-87
    SRP: _____ DATE: _____
    _____ DATE: _____
    _____ DATE: _____
    _____ DATE: _____
    ECTG PROGRAM MGR: _____ DATE: _____

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE	TITLE	DATE

TELECOPIER # 8763

FACSIMILE SERVICE REQUES

VERIFY # 3037

ECTG C.3
Attachment A
Page 1 of 1
Revision 2

ECSP Corrective Action Tracking Document (CATD)

INITIATION Applicable ECSP Report No.: 313.06-BFN

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. 31306-BFN-01 4. INITIATION DATE 11/20/86
5. RESPONSIBLE ORGANIZATION: ONP-BFN
6. PROBLEM DESCRIPTION: ☒ QR ☐ NQR M&AI-34, RO (07-25-86) does not incorporate all specific criteria stipulated in Section 6.0 of TVA General Construction Specification G-51, "Grouting and Dry Packing of Base Plates and Joints," relative to curing and protection of dry pack installations. This instruction also indicates that Five-Star only, be utilized for dry pack. The use of a pre-mixed grout in dry pack form is not specifically addressed in G-51. Additionally, the foreman is permitted by the instruction to verify the 14-day wet curing process relative to a dry pack installation. This is not consistent with Quality Assurance Program Policy (QAPP)-10.0, R3, "Inspection," paragraph 6.2. This paragraph states: ". . . . . utilize trained and certified individuals to perform the activity being inspected."

   Note: The ECTG evaluation noted that Corrective Action Report Number BF-CAR-86-032 was initiated on 03-05-86 to document that M&AI-34 did not fully implement construction specification requirements. However the above was based on a review of the instruction effective 07-25-86.

☒ ATTACHMENTS

7. PREPARED BY: NAME Donald E. Nixon DATE: 11-20-86
8. CONCURRENCE: CEG-H [signature] DATE: 12/2/86
9. APPROVAL: ECTG PROGRAM MGR. [signature] DATE: 12/3/86

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: See attached CAP Rev. 1

☒ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: [signature] DATE: 5-8-87
12. CONCURRENCE: CEG-H: [signature] DATE: 6-16-87
    SRP: _____ DATE: _____
    _____ DATE: _____
    _____ DATE: _____
    ECTG PROGRAM MGR: _____ DATE: _____

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE TITLE DATE

ECSP Corrective Action Tracking Document (CATD)

INITIATION Applicable ECSP Report No.: 313.06-BFN

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. 31306-BFN-02 4. INITIATION DATE 11/20/86
5. RESPONSIBLE ORGANIZATION: ONP-BFN
6. PROBLEM DESCRIPTION: ☒ QR ☐ NQR QA Audit Deviation QBF-A-85-0008-D02 noted the following:

Deviation: "BFN Modifications and Additions Instructions do not adequately address and implement the applicable acceptance criteria and inspection requirements contained in the General Construction Specifications as required by TVA Topical Report TVA-TR75-1A, Section 17.2.10 and N-QQAM, Part II, Section 5.3."

Deviation Details (in part): "BFN has failed to incorporate or reference in modifications and additions instructions the required inspection and testing to be performed for grouting and drypacking of base plates and joints . . . ."

The BFN response (RIMS R05 860611 812) to the above deviation noted that Modifications was interfacing with the Office of Engineering (OE) to qualify all drypack operations performed without adequate inspection and testing requirements as stated in G-51.

The ECTG evaluation noted that grout had been used to some extent. Qualification of the previous grout installations are not included in the above response

☒ ATTACHMENTS

7. PREPARED BY: NAME David E. Nicol DATE: 11-20-86
8. CONCURRENCE: CEG-H NRB Timothy L. Hurst DATE: 12/2/86
9. APPROVAL: ECTG PROGRAM MGR. D.W. Stewart for DATE: 12/5/86

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: See attached CAP Rev. 1

☒ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: Alan Thorne for DATE: 5-8-87
12. CONCURRENCE: CEG-H: W.K. Long DATE: 6-16-87
SRP: DATE:
DATE:
DATE:
ECTG PROGRAM MGR: DATE:

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE

Revision 2

ECSP Corrective Action Tracking Document (CATD)

INITIATION Applicable ECSP Report No: 313.07-BFN

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. 31307-BFN-01 4. INITIATION DATE 10/16/86
5. RESPONSIBLE ORGANIZATION: BFN
6. PROBLEM DESCRIPTION: ☒ QR ☐ NQR Browns Ferry has not evaluated the level of fluorides and chlorides in the nonmetallic insulation used on austenitic stainless steel safety-related piping.

☒ ATTACHMENTS

7. PREPARED BY: NAME R. E. Jones DATE: 11-10-86
8. CONCURRENCE: CEG-H W.R. Longan DATE: 11-10-86
9. APPROVAL: ECTG PROGRAM MGR. D.W. Stahlman for DATE: 11-10-86

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: - BASIS FOR ACTION PLAN - Regulatory guide 1.36 sets maximum levels of flourides and chlorides in insulation for use on safety related stainless steel piping. Non-metallic insulation currently purchased or contracted for by TVA for BFNP is specified to meet Reg. Guide 1.36 requirements. Possibly some non-metallic insulation is stored at BFNP which does not meet 1.36 requirements.
Limited document search (for piping 2 1/2" nominal diameter and larger) reveals that non-metallic insulation was used on stainless steel piping on the SLC SYS (63) and the EECW SYS (67). No documentation is available to establish compliance to Reg. Guide 1.36.
See Attachment A for Corrective Action plan.

☒ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: D.C. Hall for DATE: 3-20-87
12. CONCURRENCE: CEG-H: W.R. Longan DATE: 3-31-87
SRP: _____ DATE: _____
_____ DATE: _____
_____ DATE: _____
_____ DATE: _____
ECTG PROGRAM MGR: _____ DATE: _____

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE	TITLE	DATE

2099T

ECSP Corrective Action Tracking Document (CATD)

INITIATION

Applicable ECSP Report No.: 313.09-WBN Draft

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. 31309-WBN-01
4. INITIATION DATE 02/09/87
5. RESPONSIBLE ORGANIZATION: WBN Site Director
6. PROBLEM DESCRIPTION: ☐ QR ☒ NQR The section supervisor's response to plant improvements and suggestions in many cases was found to be incomplete. When the initial responses indicated that the suggestion would be implemented or that further evaluation was needed, a final response was not documented and provided to the employee when work was completed or a final resolution was reached. Additionally, several cases were noted where open items were not placed on the OISL for tracking as required by WB-2.1.10 and two of the items that were placed on the OISL were removed without a final resolution being obtained.

☒ ATTACHMENTS

7. PREPARED BY: NAME W. J. Elliott DATE: 2/9/87
8. CONCURRENCE: CEG-H Thomas F. Huth, Jr. for WRL DATE: 2/9/87
9. APPROVAL: ECTG PROGRAM MGR. [signature] for DATE: 2/10/87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN:

SEE ATTACHED CAP

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR. SEE ATTACHED CAP DATE: 2-20-87
12. CONCURRENCE: CEG-H: [signature] DATE: 2-20-87
SRP: DATE:
DATE:
DATE:
DATE:
ECTG PROGRAM MGR: DATE:

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE	TITLE	DATE

3368T

ECSP Corrective Action Tracking Document (CATD)

Applicable ECSP Report No.: 313.09 WBN Draft

INITIATION

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. 31309-WBN-02
4. INITIATION DATE 1-23-87
5. RESPONSIBLE ORGANIZATION: Modifications - WBN
6. PROBLEM DESCRIPTION: ☐ QR ☒ NQR In response to employee suggestion WBN-MDM-3, indication was given that an MR would be written to have a locking device installed to secure the access ramp when it is not in use at door A56. This item has been removed from the OISL, however, the required action has not been taken.

☒ ATTACHMENTS

DATE: 1-27-87

7. PREPARED BY: NAME W. T. Elliott DATE: 2/9/87
8. CONCURRENCE: CEG-H [signature] DATE: 2/10/87
9. APPROVAL: ECTG PROGRAM MGR. [signature]

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: See attached See next sheet

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: [signature] DATE: 2-15-87
12. CONCURRENCE: CEG-H: [signature] DATE: 2-20-87

SRP: DATE:

DATE:

DATE:

DATE:

ECTG PROGRAM MGR:

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE TITLE DATE

3368T

ECSP Corrective Action Tracking Document (CATD)

INITIATION

Applicable ECSP Report No.: 313.09 WBN Draft

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. 31309-WBN-03
4. INITIATION DATE 1-23-87
5. RESPONSIBLE ORGANIZATION: Radiological Control/Health Physics - WBN
6. PROBLEM DESCRIPTION: ☐ QR ☒ NQR Responsibility for changing filter papers on Continuous Air Monitors (CAMs) is not presently covered by any plant instruction.

☒ ATTACHMENTS

7. PREPARED BY: NAME W. D. Elliott DATE: 2/9/87
8. CONCURRENCE: CEG-H /s/ Thomas F. Hutton for DATE: 2/9/87
9. APPROVAL: ECTG PROGRAM MGR. D. Williams DATE: 2/10/87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN:

SEE ATTACHED CAR

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: Whitaker DATE: 2/14/87
12. CONCURRENCE: CEG-H: W. R. Bryan DATE: 2-20-87
SRP: DATE:
DATE:
DATE:
DATE:
ECTG PROGRAM MGR: DATE:

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE | TITLE | DATE

3370T

ECSP Corrective Action Tracking Document (CATD)

INITIATION

Applicable ECSP Report No.: 313.09-WBN Draft

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. 31309-WBN-04
4. INITIATION DATE 01-26-87
5. RESPONSIBLE ORGANIZATION: Instrument Maintenance - WBN
6. PROBLEM DESCRIPTION: ☐ QR ☒ NQR On employee suggestion WBN-245, the response indicated that MR-A-413317 was issued to install a permanent sheet metal protective cover. This work was never completed.

☒ ATTACHMENTS

7. PREPARED BY: NAME W. T. Elliott DATE: 1-27-87
8. CONCURRENCE: CEG-H for Thomas F. Hurlbut DATE: 2/9/87
9. APPROVAL: ECTG PROGRAM MGR. [signature] DATE: 2/10/87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN:

"SEE ATTACHED CAP"

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: [signature] DATE: 2/5/87
12. CONCURRENCE: CEG-H: [signature] DATE: 2-20-87
SRP: DATE:
DATE:
DATE:
DATE:
ECTG PROGRAM MGR: DATE:

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE _____ TITLE _____ DATE _____

ECSP Corrective Action Tracking Document (CATD)

INITIATION Applicable ECSP Report No.: 313.09-WBN Draft

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. 31309-WBN-05
4. INITIATION DATE 01-26-87
5. RESPONSIBLE ORGANIZATION: Mechanical Maintenance - WBN
6. PROBLEM DESCRIPTION: ☐ QR ☒ NQR Supervisor's response to employee suggestion WBN-0026, concerning freeze protection of the heating and cooling coils, was to agree and indicated that the suggestion would be implemented. The item is not on the section's OISL and the work has not been completed.

☒ ATTACHMENTS

7. PREPARED BY: NAME W. T. Elliott DATE: 1-27-87
8. CONCURRENCE: CEG-H for Thomas F. Hutchins DATE: 2/9/87
9. APPROVAL: ECTG PROGRAM MGR. [signature] for DATE: 2/10/87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN:

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: [signature] DATE: 2/15/87
12. CONCURRENCE: CEG-H: [signature] DATE: 2-20-87
SRP: DATE:
DATE:
DATE:
DATE:
ECTG PROGRAM MGR: DATE:

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE TITLE DATE

3370T

ECSP Corrective Action Tracking Document (CATD)

INITIATION — Applicable ECSP Report No.: 313.09-WBN Draft

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. 31309-WBN-06
4. INITIATION DATE 01-26-87
5. RESPONSIBLE ORGANIZATION: DNE - WBN
6. PROBLEM DESCRIPTION: ☐ QR ☒ NQR The response to employee suggestion WBN-85-002PI indicated that an alternate design of door A57 which was suggested by an employee would be considered if maintenance of the door became a problem. The door is being redesigned without consideration of the employee's suggestion.

☒ ATTACHMENTS

7. PREPARED BY: NAME W. T. Elliott DATE: 1-27-87
8. CONCURRENCE: CEG-H for Thomas F. Hyatt DATE: 2/9/87
9. APPROVAL: ECTG PROGRAM MGR. D. W. Hunt for DATE: 2/10/87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: See T41 870216 887 | J+ 2/20

SEE ATTACHED CAP Rev.

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: SEE ATTACHED CAP Rev. DATE: 2-20-87
12. CONCURRENCE: CEG-H: DATE: 2-20-87
SRP: DATE:
DATE:
DATE:
DATE:
ECTG PROGRAM MGR: DATE:

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE | TITLE | DATE

ECSP Corrective Action Tracking Document (CATD)

INITIATION

Applicable ECSP Report No.: 313.09 WBN Draft

1. Immediate Corrective Action Required: ☐ Yes ☒ No
2. Stop Work Recommended: ☐ Yes ☒ No
3. CATD No. 31309-WBN-07
4. INITIATION DATE 02/09/87
5. RESPONSIBLE ORGANIZATION: Radiological Control/Health Physics - WBN
6. PROBLEM DESCRIPTION: ☐ QR ☒ NQR The Supervisor's initial response to employee suggestion WBN-0295 indicated that further evaluation would be performed and the item was placed on the OISL for tracking. This item was later removed from the OISL and the final response was not provided.

☒ ATTACHMENTS

7. PREPARED BY: NAME W.J. Elliott DATE: 2/9/87
8. CONCURRENCE: CEG-H Thomas J. Hutto DATE: 2/9/87
9. APPROVAL: ECTG PROGRAM MGR. [illegible] DATE: 2/10/87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN:

☐ ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: [illegible] DATE: 2/15/87
12. CONCURRENCE: CEG-H: [illegible] DATE: 2-20-87
SRP: DATE:
DATE:
DATE:
DATE:
ECTG PROGRAM MGR: DATE:

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE _____ TITLE _____ DATE _____

3370T

List of Evaluators by Element/Plant

Element 313.01

WBN

R. Gunnels

Element 313.02

WBN	SQN
J. Manual	J. Manuel
R. Gunnels	

Element 313.03

WBN	SQN
R. Gunnels	J. Manual

Element 313.04

WBN	SQN
W. Mills	W. Mills

Element 313.05

WBN

W. Mills
R. Jones

Element 313.06

WBN	SQN
D. Nixon	D. Nixon T. Elliott

BFN

D. Nixon

Element 313.07

WBN	SQN
R. Jones	R. Jones

BFN	BLN
R. Jones	R. Jones

Element 313.08

BFN

D. Smith

Element 313.09

WBN	SQN
T. Elliott	T. Massey R. Jones

Enclosure 3

fitting on one end (for connection to Service Air) and a different type fitting on the other end (for connection to the MSA Breathing Air Manifold). The air lines would also be identified with a special sleeving material, which has been secured for this purpose. The type of fitting to be used on the MSA Breathing Air Manifold has not been settled. Discussions are underway with MSA at this time. If the solution can be used, no adapter is necessary to ensure that an uncontaminated air line will be used.

Administratively, HP-TSIL-19 and RCI-4 will require revision and are scheduled for the second and third quarter of 1987 respectively. Because corrective action does not require immediate implementation, we propose to maintain the present schedule for instruction review/rewrite. When revised, the instructions will reflect RAD CON control of designated air lines for MSA Breathing Air Manifolds which are identifiable by special sleeving and a unique fitting on one end. The MSA Breathing Air Manifold will be changed accordingly. Additionally, RAD CON personnel will certify correct installation prior to use of the MSA Breathing Air Manifold. To prevent the inadvertent disconnection of a MSA Breathing Air Manifold from Service Air, RCI-4 will also stipulate that a hold order be placed on Service Air valves in use for supplying air to the manifolds.

"Completion Dates

Assuming changing the coupling on the MSA Breathing Air Manifold is permissible and a suitable coupling is obtained before April 30, 1987, HP-TSIL-19 and RCI-4 will be revised before September 30, 1987. At this point, all action should be completed."

6.2 Corrective Action at Subcategory Level

01 and 02 MWM 8/7/87

CATD 30500-NPS-~~03~~ being sent to TVA corporate management under Report 30500, "Accessibility," adequately addresses the first finding of this subcategory as presented in section 4.0 of this report, i.e., lack of corporate guidance and design input criteria with respect to ALARA consideration. The problem of management accountability as cited in the second subcategory-level finding is discussed in the Operation Category Report as one of the root causes found throughout the category's major findings. Because of this higher-level treatment of the topic of management accountability, no subcategory-level CATD is being issued under this report.

B. Civil drawings 46W421-3 R13 (architectural floor plan, elevation 713.0), 46W423-8 R10 (architectural wall sections) and 46W425-7 R7 (architectural miscellaneous details-hot shop facilities) were reviewed for specific information on subject wall.

C. Reviewed the Concrete Tracking System Master Report to determine applicable concrete pour cards. Reviewed pour cards GS BC 76, 101, 111, 121, 125A, 126, 129, 130, 135, 142, 145, 147, and GSBG 144. Also, workplans 2814 and 2835, which provided instructions required to perform work, were reviewed for any additional quality control requirements.

D. Interviewed cognizant design, architectural, and nuclear engineers. Interviews were also conducted with the Construction Superintendent, knowledgeable Civil Engineering Unit (CEU) personnel and the site ALARA Engineer. ALARA (As Low As Reasonably Achievable) identifies a program whose purpose is to hold radiation exposure to a minimum.

E. Performed field walkdown with cognizant CEU personnel to visually inspect subject wall.

3.2.2 Issue 1.2.2 - Concrete

A. An attempt was made to coordinate with Quality Technology Company (QTC) to obtain further detailed information.

B. Interviewed cognizant CEU personnel.

C. Performed field walkdowns with cognizant CEU personnel of affected areas.

3.2.3 Issue 1.2.3 - Gatehouse

A. Reviewed existing WBN - PMO response to the subject concern.

B. Interviewed cognizant CEU personnel.

C. ECN 4039, FCR F2602 and FCR 2603 R1 were reviewed to determine a complete description of the changes. A review was also performed of memorandum SDP 830617 002 from Special Design Project to Watts Bar Design Project dated June 17, 1983 and memorandum OQA 830527 002 from J. W. Anderson to M. N. Sprouse dated May 27, 1983.