

TENNESSEE VALLEY AUTHORITY

NUCLEAR SAFETY REVIEW STAFF

NSRS INVESTIGATION REPORT NO. I-86-130-SQN

EMPLOYEE CONCERN: XX-85-116-003
XX-85-116-006

SUBJECT: DISREGARD OF AUDIT FINDINGS IN THE CHEMISTRY AREA

DATES OF INVESTIGATION: FEBRUARY 12-20, 1986

INVESTIGATOR: Charlie Breeding 3/14/86
C. L. BREEDING DATE

REVIEWED BY: L. E. Brock for 3/17/86
G. G. BRANTLEY DATE

APPROVED BY: W. D. Stevens 3/18/86
W. D. STEVENS DATE

8604070355 860328
PDR ADOCK 05000259
P PDR

I. BACKGROUND

A Nuclear Safety Review Staff (NSRS) investigation was conducted to determine the validity of two expressed employee concerns received by Quality Technology Company (QTC)/Employee Response Team (ERT). The concern of record, as summarized on the Employee Concern Assignment Request Form from QTC and identified as XX-85-110-003 stated:

Sequoyah - TVA has exhibited a lengthy disregard toward fulfilling commitments made to various regulatory and vendor organizations with respect to chemical and radiochemical data used to monitor and control operations of the Sequoyah plant.

At the bottom of the form was a note that states, "Findings issued by QA, NSRS, and NRC have not adequately addressed M&T control."

The second concern was identified as XX-85-116-006 and stated:

Sequoyah - Recommendations made by internal TVA organizations such as NSRS have produced little results regarding correcting practices which lead to chemical and radiochemical data of poor quality.

These two concerns were similar. Therefore, a single investigation was conducted. The ERT informed the NSRS investigation team that the Concerned Individual (CI) had contacted them after submitting these concerns and expressed the desire to withdraw them. The NSRS believes that these concerns should be investigated because of their potential safety significance.

II. SCOPE

The scope of this investigation was determined from the stated concern of record to be two issues requiring investigation:

1. TVA has disregarded commitments made in the chemical and radiochemical data area.
2. Recommendations made by internal TVA organizations have had little effect on poor quality chemical and radiochemical data.

III. SUMMARY OF FINDINGS

A. Requirements and Commitments

1. 10 CFR 20 provides "Standards for Protection Against Radiation"
2. 10 CFR 50, Appendix A, provides "General Design Criteria for Nuclear Power Plants"

3. 10 CFR 50, Appendix B, defines "Quality Assurance Criteria for Nuclear Power Plants"
4. 10 CFR 50, Appendix I, sets "Numerical Guides for ...ALARA..."
5. 10 CFR 51 defines "Licensing and Regulatory Policy and Procedures for Environmental Protection"
6. Regulatory Guide 1.21 on the subject "Measuring, Evaluating, and Reporting Radioactivity in Solid Waste and Release of Radioactivity in Liquid and Gaseous Effluents from Light-Water Cooled Nuclear Power Plants"
7. Regulatory Guide 1.112 on the subject, "Calculation of Release of Radioactivity Materials in Gaseous and Liquid Effluents from Light-Water Cooled Power Reactors"
8. Regulatory Guide 4.15 on the subject, "Quality Assurance for Radiological Monitoring Programs (Normal Operations) - Effluent Streams and the Environment"

To comply with these and other regulations, a water quality program is required to assure maintenance of high water quality at all times, through all phases of plant evolution; to reduce those impurities present which induce corrosion, fouling, and plant radiation to the lowest level acceptable through state-of-the-art treatment practices; and to ensure plant effluents meet environmental and regulatory requirements.

B. Findings

A number of audits and investigations by organizations outside of the Sequoyah Nuclear Plant (SQN) site have been made in the area of chemistry at SQN. The reports of these audits are contained in:

1. NSRS Report No. R-82-08-NPS, "Review of the Office of Power Water Quality Program," dated February 22, 1983, and a follow-up review, R-83-26-NPS, approved on February 9, 1984, reviewed the entire TVA nuclear power chemistry program (Refs. 1 and 2). These reports contained SQN specific findings. The initial report was 149 pages long. This report had its findings summarized into ten general findings that had generic application to all TVA nuclear plants and the Central Office organization. The NSRS intended for the generic findings to rectify programmatic deficiencies in the water quality program. Thus the specific findings contained in the body of the report would be rectified as better programs were put in place. The follow-up report issued a year later found that only one of the ten findings could be closed. A response to the NSRS follow-up report was written by the Nuclear Central Office (Ref. 3). This memo addressed programs that were to be in place in 1984 to resolve the generic issues raised in the NSRS report. Neither Chemistry personnel nor Compliance

personnel at SQN were aware of any commitments due to the findings in these reports. As proper corrective action had not been taken by the NCO to address each of the ten identified generic findings, those specific findings at SQN remain in a deficient condition.

2. INPO 1984 and 1985 audits (Refs. 4 and 5) of SQN had a number of findings in the chemistry area. The Chemistry Section and Compliance Section were aware of the findings and had implemented action on some of the findings.
3. NRC has issued violations in reports 50-327/85-20, 50-328/85-20, and 50-327/85-15-02 (Refs. 6 and 7) in the area of chemistry at SQN. These violations are being addressed with changes in procedures.
4. The Office of Quality Assurance has open findings as a result of report SQ-8400-14 (Ref. 8) in the chemistry area.

The Chemistry Section at SQN is aware of most of the deficiencies that outside organizations (INPO and NRC) have found to be problems in the implementation of the chemistry program at SQN. The organization within TVA that has made a review of the program at the plant and has had no action taken on their recommendations by the same SQN staff is the NSRS. The NSRS Report No. R-82-08-NPS has a number of SQN specific deficiencies included in its 149 pages. These deficiencies are not clearly identified and are not reflected in the ten generic deficiencies contained in the summary, "Conclusions and NSRS Positions" section found on page 6. The specific findings contained in the NSRS reports were discussed with the Chemistry Section management during both exit reviews and a marked-up copy of the original report (with SQN deficiencies highlighted) was provided to the Chemistry Section management prior to its follow-up review. No SQN items from this report were contained in the list of outstanding NSRS items to be resolved before startup of the SQN units (Ref. 10). These deficiencies include the following:

1. Pages 34 and 35, "TI-27 specification conflicts with FSAR commitments."
2. Pages 52 and 53, "Laboratory Quality Control Program has not been established to include all of the requirement of RG 4.15 and section III of DPM N79E2."
3. Page 65, "Not all of the analyses required for acceptance in section IV of DPM N79E2 are included in the implementing document at SQN."
4. Page 68, "NSRS recommended to station management that the SQN staff do an internal review to determine the status of programs implementation (procurement and receipt program for QA level III bulk chemicals) and take corrective actions."

DOCUMENTS REVIEWED IN INVESTIGATION I-86-130-SQJ
AND REFERENCES

1. Memo from H. N. Culver to H. G. Parris, "Special Program Management Review of the Office of Power Water Quality Program - Nuclear Safety Review Staff Report No. R-82-08-NPS," dated February 25, 1983 (GNS 830225 050)
2. Memo from H. N. Culver to H. G. Parris, "Follow-up Review of the Nuclear Safety Review Staff Special Program Review of the Office of Power Water Quality Program - Nuclear Safety Review Staff Report No. R-83-26-NPS," dated February 9, 1984 (GNS 840209 050)
3. Memo from H. G. Parris to H. N. Culver, "Follow-up Review of the Nuclear Safety Review Staff (NSRS) Special Program Review of the Office of Power Water Quality Program - Nuclear Safety Review Staff Report No. R-84-26-NPS," dated March 15, 1984
4. INPO, "Evaluation of Sequoyah Nuclear Plant," dated February 1984.
5. INPO, "Evaluation of Sequoyah Nuclear Plant," dated April 1985
6. Letter from David M. Varrelli (NRC) to H. G. Parris, "Report Nos. 50-327/85-15 and 50-328/85-15," dated April 30, 1985 (A02 850506 013)
7. Letter from Rodger D. Walker (NRC) to H. G. Parris, "Report Nos. 50-327/85-20 and 50-328/85-20," dated April 30, 1985 (A02 850624 003)
8. Memo from G. W. Killian to T. G. Campbell, "Division of Quality Assurance Audit Report, SQ-8400-14, - Sequoyah Chemistry Program," dated November 2, 1984 (L17 841102 801)
9. Letter from S. A. White to P. M. Beard (INPO) dated February 11, 1986 (S00 860205 802)
10. Memo from K. W. Whitt to H. L. Abercrombie, "Sequoyah Nuclear Plant (SQN) - Nuclear Safety Review Staff (NSRS) Followup Review of NSRS Open Items - Review No. R-86-01-SQN," dated January 30, 1986

UNITED STATES GOVERNMENT

Memorandum

TENNESSEE VALLEY AUTHORITY

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

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

DATE : March 17, 1986

SUBJECT: NUCLEAR SAFETY REVIEW STAFF INVESTIGATION REPORT TRANSMITTAL

Transmitted herein is NSRS Report No. I-85-218-SQN

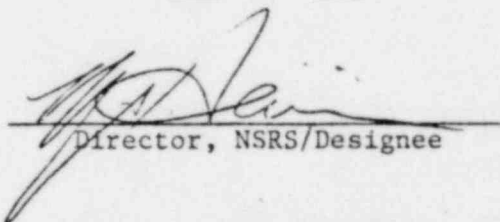
Subject: USE OF NONCONFORMING ELECTRICAL CABLE - PJJ AND PNJ TYPES

Concern No.: XX-85-027-X03 and associated prioritized recommendations for your action/disposition.

This report contains one Priority 1 [P1] recommendation which must be addressed before startup.

Should you have any questions, please contact W. D. Stevens at extension 6231-K.

Recommend Reportability Determination: Yes X No


Director, NSRS/Designee

WDS:BRP

Attachment

cc (Attachment):

W. C. Bibb, BFN
W. T. Cottle, WBN
J. P. Darling, BLN
R. P. Denise, LP6N40A-C
G. B. Kirk, SQN
M. L. Martin, WBN
D. R. Nichols, E10A14 C-K
QTC/ERT, WBN
E. K. Sliger, LP6N48A-C
J. H. Sullivan, SQN (2)

WATTS BAR NUCLEAR PLANT SITE DIRECTOR'S OFFICE			
MAR 19 '86			
	Note	Action	Reply
Pit Mgr			
Mud Mgr			
SS Mgr			
OS Mgr			
QA			
Personnel			
Finance			
Compliance			
Int Office			
TC TO ARMS			
ET FS			

RPD -



UNITED STATES GOVERNMENT

Memorandum

TENNESSEE VALLEY AUTHORITY

TO : H. L. Abercrombie, Site Director, Sequoyah Nuclear Plant
 FROM : K. W. Whitt, Director of Nuclear Safety Review Staff, E3A8 C-K
 DATE : March 17, 1986
 SUBJECT: NUCLEAR SAFETY REVIEW STAFF INVESTIGATION REPORT TRANSMITTAL

Transmitted herein is NSRS Report No. I-85-218-SQN

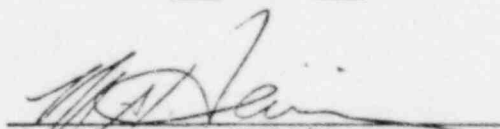
Subject: USE OF NONCONFORMING ELECTRICAL CABLE - PJJ AND PNJ TYPES

Concern No.: XX-85-027-X03 and associated prioritized recommendations for your action/disposition.

This report contains one Priority 1 [P1] recommendation which must be addressed before startup.

Should you have any questions, please contact W. D. Stevens at extension 6231-K.

Recommend Reportability Determination: Yes X No


 Director, NSRS/Designee

- WDS:BRP
 Attachment
 cc (Attachment):
 W. C. Bibb, BFN
 W. T. Cottle, WBN
 J. P. Darling, BLN
 R. P. Denise, LP6N40A-C
 G. B. Kirk, SQN
 M. L. Martin, WBN
 D. R. Nichols, E10A14 C-K
 QTC/ERT, WBN
 E. K. Sliger, LP6N48A-C
 J. H. Sullivan, SQN (2)

WATTS BAR NUCLEAR PLANT SITE DIRECTOR'S OFFICE			
MAR 19 '86			
	Notes	Action	Reply
Dir Mgr			
Asst Dir			
SS Mgr			
IS Mgr			
QA			
Personnel			
Finance			
Compliance			
Inf Office			
EC TO ARMS			
FILES			

RPD -

