

TENNESSEE VALLEY AUTHORITY

NUCLEAR SAFETY REVIEW STAFF

NSRS INVESTIGATION REPORT NO. I-86-206-SQM

EMPLOYEE CONCERN: SQP-6-003-003

SUBJECT: CONDUIT REMOVAL AND REPLACEMENT WITHOUT PROPER DOCUMENTATION

DATES OF INVESTIGATION: FEBRUARY 18-MARCH 6, 1986

INVESTIGATOR: *John Mashburn* 3/13/86
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INVESTIGATOR: *J. H. Kincaid* 3/13/86
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REVIEWED BY: *John C. Catlin SR* 3/13/86
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APPROVED BY: *W. D. Stevens* 3/13/86
W. D. STEVENS DATE

I. BACKGROUND

A Nuclear Safety Review Staff (NSRS) investigation was conducted to determine the validity of an expressed employee concern received by the 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 SQP-6-003-003, stated the following:

Conduit is currently being removed and reinstalled (rerouted) without proper documentation. Lower containment, Fan Room #1, Unit 2, approximately elev. 680'. Workplan 11882. Nuclear Power Concern. CI has no further information.

The statement of concern was later clarified and corrected by follow-up contacts between QTC and the concerned individual (CI). The workplan number was corrected to 11808, and the following concern statement was added:

At the building location noted above, old conduit was being reused. About 150 feet of 1-inch rigid conduit is involved. TVA is not allowed to re-use conduit, and that's why there is no record being made of the re-use (hence improper documentation).

II. SCOPE

- A. The scope of this investigation was defined by the stated concern as modified by the follow-up information from QTC.
- B. NSRS investigated this concern by reviews of the workplans cited, the procedures and design specifications for conduit installation and modification, plus interviews and telephone contacts with design and modifications personnel.

III. FINDINGS

A. Lack of Procedures for Conduit Rework

There was no procedure that specifically addressed reworking conduit. The workplan incorporated Sequoyah Nuclear Plant (SQN) procedure M&AI-6 which was consistent with Office of Engineering's (OE) G-40 in that both address installation of new conduit. In these procedures there appears to be a prohibition against conduit reuse in the general statement: "Materials used in the original installation of the electrical conduit systems and conduit boxes shall be new . . ." (G-40, section 2.1, and M&AI-6, section 2.1). NSRS found no engineering basis for making a prohibition against reuse of conduit and concluded that the consensus interpretation of the preceding statement is that it applies only to new work.

B. M&AI Guideline Procedures Not in Compliance with Appendix B

The lack of procedural guidance for rework was pointed out to involved personnel; and at least one voiced the opinion that it did not matter exactly what the procedures said because M&AI-6, along with other M&AI procedures, is only a guideline and not a strict prescription for work. This is the content of the scoping statement, paragraph 1.1, in the procedure. That statement negates the effectiveness of M&AI-6 as an implementing document for G-40, which is prescriptive and contains the acceptance criteria which could be used by a QC inspector. The work done under workplans that rely on these "guideline" procedures is not in conformance with Appendix B of 10 CFR 50 because Criterion V requires the following.

Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

C. Possible Sabotage and QA Record Tampering

Interviews disclosed concern that work had been sabotaged to discredit a QC inspector and that QA records had been tampered with. Follow-up questions to line management, QTC, and the TVA Inspector General's (IG) office revealed that there was activity on the part of those organizations involving the same workplans, employees, etc., as this concern investigation. Therefore, NSRS terminated its investigation of these issues to preclude the possibility of interfering with more sensitive work required to deal with possible sabotage or intimidation issues.

IV. CONCLUSIONS AND RECOMMENDATIONS

- A. The concern was not substantiated. TVA is allowed to reuse conduit; and certain reuses, such as repulling cable, are covered procedurally. There is no requirement to document reused conduit.
- B. I-86-206-SQN-01, Lack of Procedures for Conduit Rework

Conclusion

There was no procedure for reworking conduit, because rework was not in the scope of M&AI-6 or G-40, both of which address new installations.

Recommendation

Provide procedures that cover reworking conduit, including appropriate acceptance criteria. [P1]

C. I-86-206-SQN-02, M&AI Procedures Not in Compliance with Appendix B

Conclusion

Certain M&AI procedures, including M&AI-6, contain scoping statements that negate their value in the QA program, contrary to the requirement of 10 CFR 50, Appendix B, Criterion V, for prescriptive procedures with appropriate acceptance criteria.

Recommendation

Provide procedures that are more prescriptive, not guidelines, as required by Appendix B. Review other similar SQN M&AI procedures for potentially flawed scoping statements that contradict the requirements of Appendix B. [P1]

Interviews disclosed concern that work had been sabotaged to discredit a QC inspector and that QA records showed indications of tampering. It was determined that there was activity on the part of line management, QTC, and TVA's IG office involving the same workplans, employees, etc., as this concern investigation. NSRS has terminated its investigation of these issues. A copy of this report will be forwarded to the Inspector General for information relevant to his investigation.

DOCUMENTS REVIEWED IN INVESTIGATION I-86-206-SQN
AND REFERENCES

1. 10 CFR 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants"
2. General Construction Specification G-40, "Installing Electrical Conduit Systems and Conduit Boxes"
3. Sequoyah Nuclear Plant Modifications and Additions Instruction M&AI-6, "Installation of Conduit and Junction Boxes," R6, February 18, 1986
4. SNP Workplans 11808 and 11882

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