

FEB 26 1993

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92-21

Docket Nos.: 50-390 and 50-391
License Nos.: CPPR-91 and CPPR-92

Tennessee Valley Authority
ATTN: Dr. Mark O. Medford, Vice President
Nuclear Assurance, Licensing & Fuels
3B Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Gentlemen:

SUBJECT: MATERIAL TRACEABILITY AT WATTS BAR

Nuclear Regulatory Commission (NRC) Inspection Report 50-390,391/92-21 concluded that some safety-related material used at the site is not traceable from its installed location to the associated material technical requirements, which are specified in the purchase order or contract for the material. In addition, the inspection also determined that some materials have been purchased as non-safety-related, and have been installed in safety-related systems in the plant. This issue was identified as Unresolved Item URI 50-390,391/92-21-01 pending further review by the NRC.

We understand that the Tennessee Valley Authority (TVA) has a long standing corporate position on this issue, based on an S. White to H. Denton (NRC) letter, dated March 20, 1986, that traceability of TVA Level II Structural Steel materials to the point of installation is not specifically required, based on your interpretation of 10 CFR 50, Appendix B and ANSI N45.2-1971. Specifically, we understand your position to be that material traceability from receipt on-site to the segregated warehouse storage, in conjunction with the other controls in place, provides adequate assurance to confirm that the correct material has been installed in the plant.

Our review has determined that your position on material traceability does not contain sufficient detail to determine if it is in full compliance with 10 CFR Appendix B and ANSI N45.2-1971. For example, your interpretation of ANSI N45.2 would allow considerable latitude to a plant owner in determining the extent to which the standard applies, but does not address the basis or framework in which such decisions are made, the criteria the design engineer would use in making such determinations and the presence of or requirements for Quality Assurance oversight in such a process. Without such provisions, those decisions would appear to be arbitrary and vulnerable to unidentified errors. The determining factor here would be the Quality Assurance plan in effect at the time the work was being performed as well as any other Quality Assurance related commitments.

For Quality Level II Structural Steel materials, the WBN Construction Specification, N3G-881, requires traceability from the mill number to the project segregated warehouse storage. Your position is silent as to whether

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controls were in place to ensure that this material was only drawn from the appropriate storage, i.e., that segregation was maintained and that evidence existed in the form of markings on materials, drawing notations, or other pertinent technical documents to correlate the material back to the appropriate warehouse storage.

Based on the material control problems that have occurred at the site previously, we have reviewed some historical data in an attempt to determine the adequacy of your past materials controls processes. This review has identified several concerns regarding the adequacy of your material control program. These concerns stem from a review of the Employee Concerns Special Program Subcategory Reports in the material control area. Specifically:

Subcategory Report 40300 discusses several employee concerns, which alleged that materials of all kinds were being retrieved from the scrapyard and installed in safety systems in the plant. The concerns were substantiated by TVA's own investigation of the concerns.

Subcategory Report 40300 also discusses several employee concerns, which alleged that potentially incorrect valves were substituted from what was required on the drawing bill of materials, due to a very liberal interpretation of "or equal" which was specified on engineering drawings. This concern was substantiated by TVA's own investigation of the concerns.

Subcategory Report 40800 discusses employee concerns, which alleged 1) deficiencies in the segregation, labeling, and storage of materials in the construction warehouse and 2) questioned the adequacy of issued materials due to deficiencies in warehouse personnel training. TVA's investigation of these concerns resulted in a major effort to review and correct all material in this warehouse. It should be noted that the corrective action for these employee concerns are not the only time that TVA has performed an extensive review of warehousing. A similar and more extensive effort was recently completed involving the sanitization of stock materials under the site's Material Improvement Project.

The issue of material traceability was briefly discussed at a NRC/TVA Management Meeting at Watts Bar on January 5, 1993. At that meeting it was decided that your staff would provide additional information to expand and clarify the implementation of your traceability position on the subject. Based on discussion with your staff and a telecon between Mr. P. Fredrickson of the NRC and Mr. G. Pannell of your staff on February 24, 1993, this letter confirms a meeting to be held at NRC Headquarters in Rockville, MD., on April 2, 1993 at 8:30 a.m., to discuss the issue of material traceability. You are requested to review the contents of this letter, and be prepared to discuss the implementation of your past program and how it insured adequate material control. We would also expect you to address the specific problems noted in the employee concerns discussed herein. Your discussion of these

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issues should not be limited to the corrective actions taken for the employee concerns, but should include your assessment of the adequacy of your material control program in light of these recognized deficiencies.

Should you have any questions concerning this letter, please contact us.

Sincerely,

(Original signed by E. Merschoff)

Ellis W. Merschoff, Director
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cc: (See Page 4)

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