



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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ENCLOSURE

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
VOLUME 4, NUCLEAR PERFORMANCE PLAN
ON VENDOR INFORMATION
AND
REVISION 3 OF VENDOR INFORMATION
CORRECTIVE ACTION PROGRAM PLAN
WATTS BAR NUCLEAR PLANT UNIT 1
DOCKET NO. 50-390

TVA identified a number of problems with their vendor information program at Watts Bar Nuclear Plant (WBN) through condition adverse to quality (CAQ) reports, employee concerns and TVA and NRC audit findings. Specific problems identified include: (1) vendor information that was inadequately evaluated for implementation; (2) vendor information that did not match the plant configuration; (3) vendor information that was inconsistent with related TVA developed design input/output documents; (4) incorrect or out-of-date vendor documents; (5) inadequate vendor document control program; (6) manuals lost or uncontrolled; and (7) installations not approved by TVA Nuclear Engineering (NE).

TVA identified the root causes of these problems to be: (1) vendor documents were not considered as documents requiring configuration control; (2) inadequate procedural requirements to govern the receipt, review, distribution, filing, control, maintenance and use of information; and (3) a lack of attention to detail. The Vendor Information (VI) CAP was established to resolve and prevent recurrence of problems with vendor information at WBN.

2.0 EVALUATION

The VI CAP was established to provide reasonable assurance that vendor technical documents for safety-related equipment at WBN are current, complete, and appropriately updated for the life of the plant. The CAP will ensure that information in these documents is appropriately used as input to TVA design output documents, plant instructions and procedures, and the plant as-built configuration.

2.1 Vendor Technical Documents/Vendor Technical Manuals

The CAP provides for the identification of sets of vendor documentation defined as Vendor Technical Documents (VTDs). VTDs contain vendor technical information necessary to support safety-related equipment installation, operation, maintenance, and testing. These VTDs are consolidated into Vendor Technical Manuals (VTMs), which are reviewed and "Approved for Use" by Nuclear Engineering (NE). Control of the "Approved for Use" VTMs is accomplished by Document Control and Records Management for all site organizations. DCRM establishes a master set of "Approved for Use" VTMs which are updated

when affected by design changes and plant modifications. These activities assure that:

- Specific components to which each manual applies are identified;
- Manuals are complete and up-to-date (by vendor contract when possible);
- Information is provided in the manual for the identification of engineering requirements which may be contained within the manual; and
- TVA design documents are revised when appropriate to reference or incorporate upgraded vendor technical information in the vendor manual.

2.2 Drawings

Vendor supplied drawings, that provide information to support safety-related plant activities, are maintained in an as-constructed or configuration controlled status independent of the VTMs. These drawings are included in the TVA Drawing Management System and are maintained and controlled in accordance with WBN's drawing control procedures. In instances where copies of vendor drawings are contained in VTMs, the drawings are considered as "information only" copies. Only drawings which are stasured as "As Constructed" or "Configuration Control Drawings" are used for safety-related work.

2.3 Reconciliation of Plant Procedures/Instructions

Once "Approved for Use" VTMs are issued and/or revised, they are reviewed by affected plant organizations. These organizations evaluate plant instructions and procedures (e.g., operating procedures, maintenance instructions, inservice test/inspection procedures) and revise them if necessary to incorporate current information.

2.4 Confirmation of Plant Adequacy

The VI CAP provides for the confirmation of the adequacy of the installed configuration for vendor supplied features. Included in this confirmation is a review of WBN activities of the Vertical Slice Review, Special Programs and other CAPs. These reviews determine the extent of verification of vendor requirements under these activities and the components and attributes involved. The review also identifies any problems related to vendor information and the corrective action taken.

Nuclear Engineering analyses the data gathered during this review and identifies those areas/attributes for which plant adequacy is confirmed. Areas/attributes that are nonconforming with vendor engineering data are further analyzed for extent of condition and safety significance. A confirmation process is performed for those areas/attributes related to vendor engineering requirements which are not covered by analysis or other programs. This process includes a review of vendor documents against design input and output requirements. Any conflicts or omissions are identified and analyzed to determine the need to perform a physical confirmation of the adequacy of plant features.

2.5 Identified Inconsistencies

As inconsistencies are identified between vendor technical information in "Approved for Use" VTM's and existing documents or between "Approved for Use" VTM's and installed equipment, Open Item Reports (OIRs) are generated, tracked, and controlled in an open item management system. Inconsistencies requiring a design change document are entered into the WBN design control system and tracked to completion. Hardware modifications are to be implemented as required. If an OIR is determined to be a CAQ, it is tracked and controlled by the CAQ process.

2.6 Recurrence Control

Included as part of this CAP is the establishment of methods to prevent recurrence of deficiencies with vendor information. The controls consist of the development of standards and procedures to improve the control and maintenance of vendor information. Corporate TVA procedures addressing the processing and control of vendor information are being revised and strengthened. Project and site procedures are also being developed to implement the corporate guidance and requirements relative to vendor manuals and other vendor information. A long term enhancement is the preparation of a cross-reference index to be used in the development of design changes. This index will be used to assist in the location of affected vendor documents during design change development.

3.0 CONCLUSION

The staff review of the VI CAP Plan determined that the described plan establishes methods for resolving identified deficiencies with vendor information at WBN, coordination of vendor problems with other WBN CAPs and Special Programs to ensure vendor problems are resolved, confirmation of plant adequacy relative to vendor information, identification of organizational responsibilities for the implementation of the VI CAP, provisions for recurrence control to prevent future problems with vendor information and documentation of results at the completion of the CAP.

While the staff determined that the plan established methods for resolving the issues of the VI CAP, one comment is provided relative to the use of uncontrolled vendor drawings as "information only" copies. The staff finds this to be acceptable as long as TVA ensures that sufficient administrative procedures and personnel training is in place so that WBN personnel are fully aware of the proper use of "information only" drawings.

Additionally, Enclosure 2 to the letter dated March 15, 1990, submitting Revision 3 of the CAP Plan to the NRC defines specific tasks to which TVA has committed. Included as a commitment is the submittal of a revised response to NRC Notice of Violation 50-390/87-05-01 concerning specific instances where WBN failed to comply with vendor information requirements for equipment installed in the plant. NRC review and acceptance of the revised response to the NOV will be handled outside the scope of this CAP.

In conclusion, the staff finds that the VI CAP Plan, as submitted to the NRC, establishes acceptable program guidelines for resolving WBN problems in the area of vendor information. The staff concludes that with proper implementation, the CAP Plan provides reasonable assurance that vendor technical documents for safety-related equipment will be current, complete, and appropriately updated for the life of the plant and that information in these documents will be used as input to TVA design output documents, plant instructions and procedures, and the plant as-built configuration.

4.0 REFERENCES

Volume 4 of the Tennessee Valley Authority Nuclear Performance Plan, dated May 1989.

TVA letter to the NRC dated December 14, 1988, enclosing the WBN Vendor Information Corrective Action Program Plan, Revision 1.

TVA letter to the NRC dated March 15, 1990, enclosing the WBN Vendor Information Corrective Action Program Plan, Revision 3.

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