UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Enclosure 1

SAFETY EVALUATION REPORT
GENERIC LETTER 83-28, ITEM 2.1 (PART 1)
EQUIPMENT CLASSIFICATION (RTS COMPONENTS)
BELLEFONTE NUCLEAR PLANT, UNITS 1,2
DOCKET NOS. 50-438/439

INTRODUCTION AND SUMMARY

On February 25, 1983, both of the scram circuit breakers at Unit 1 of the Salem Nuclear Power Plant failed to open upon an automatic reactor trip signal from the reactor protection system. This incident was terminated manually by the operator about 30 seconds after the initiation of the automatic trip signal. The failure of the circuit breakers was determined to be related to the sticking of the undervoltage trip attachment. Prior to this incident, on February 22, 1983, at Unit 1 of the Salem Nuclear Power Plant, an automatic trip signal was generated based on steam generator low-low level during plant start-up. In this case, the reactor was tripped manually by the operator almost coincidentally with the automatic trip.

Following these incidents, on February 28, 1983, the NRC Executive Director for Operations (EDO), directed the staff to investigate and report on the generic implications of these occurrences at Unit 1 of the Salem Nuclear Power Plant. The results of the staff's inquiry into the generic implications of the Salem unit incidents are reported in NUREG-1000, "Generic Implications of the ATWS Events at the Salem Nuclear Power Plant." As a result of this investigation, the Commission (NRC) requested (by Generic Letter 83-28 dated July 8, 1983[1]) all licensees of operating reactors, applicants for an operating license, and holders of construction permits to respond to generic issues raised by the analyses of these two ATWS events.

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This report is an evaluation of the response submitted by Tennessee Valley Authority, the applicant for the Bellefonte Nuclear Plant, Units 1,2, for Item 2.1 (Part 1) of Generic Letter 83-28. The actual documents reviewed as part of this evaluation are listed in the references at the end of the report.

Item 2.1 (Part 1) requires the applicant to confirm that all Reactor Trip System components are identified, classified and treated as safety-related as indicated in the following statement:

> Licensees and applicants shall confirm that all components whose functioning is required to trip the reactor are identified as safety-related on documents, procedures, and information handling systems used in the plant to control safety-related activities, including maintenance, work orders, and parts replacement.

EVALUATION

The applicant for the Bellefonte Nuclear Plant, Units 1,2 responded to the requirements of Item 2.1 (Part 1) with a submittal dated June 26, 1984[2]. The applicant stated in this submittal that all components that are required to perform the reactor trip function are classified as safety-related equipment. These components, which include the reactor protection system, the solid state protection system, and all other components whose function is defined as safety-related are outlined in TVA's Operational Quality Assurance manual as critical systems,

structures or components (CSSC). The applicable portions of this document have been incorporated in the plant procedures. TVA's corporate procedures require all maintenance or modification activities, and procurement documents to be reviewed by appropriate personnel to ensure that they are properly identified as CSSC or non-CSSC and to ensure that the applicable procedures and quality requirements will be adhered to.

CONCLUSION

Based on our review of these responses, we find the applicant's statements confirm that a program exists for identifying, classifying and treating components that are required for performance of the reactor trip function as safety related. This program meets the requirements of Item 2.1 (Part 1) of the Generic Letter 83-28, and is therefore acceptable.

REFERENCES

1. NRC Letter, D. G. Eisenhut to all Licensees of Operating Reactors, Applicants for Operating License, and Holders of Construction Permits, "Required Actions Based on Generic Implications of Salem ATWS Events (Generic Letter 83-28)," July 8, 1983.

2. Letter, D. S. Kammer, Tennessee Valley Authority, to E. Adensam, NRC, June 26, 1984.

Enclosure 2

REQUEST FOR ADDITIONAL INFORMATION RELATED TO ITEM 2.1, PART 2

We have reviewed information submitted by the applicant by letter dated June 26, 1984 in response to Generic Letter 83-28, Item 2.1 (Part 2), Vendor Interface Program against our revised review guidelines for this item as described below.

The staff is aware that the large majority of the reactor trip system components and equipment are supplied as part of the NSSS and would be covered under an existing interface program with the NSSS Vendor. Accordingly, the staff review guideline now requires that the response include a brief description of the interface program between the licensee and his NSSS vendor that is sufficient to confirm that (a) the program is currently in place and functioning; (b) the program will continue throughout the life of the plant; (c) periodic contact is made with the vendor to assure that all applicable information has been received; (d) a system of positive feedback is used with the vendor such as written licensee verification of receipt of mailed technical information; and (e) confirmation that applicable vendor information is incorporated or referenced into appropriate plant instructions and procedures.

Our evaluation of your submittal indicates:

(a) A vendor interface exists with the NSSS vendor but no description of how it functions is presented.

(b) No information is presented that would indicate that the NSSS vendor interface program will continue throughout the plant life.

(c) The submittal states that NSSS vendors supply information but does not indicate that periodic contact is initiated and maintained which assures that all applicable information is received.

(d) No information is presented regarding positive feedback means used with the vendor to assure licensee receipt of mailed vendor technical information.

(e) Information supplied in the submittal of June 26, 1984 demonstrates that an acceptable procedure for handling, evaluating and incorporating or referencing reviewed vendor technical information into plant instructions and procedures exists.

We conclude that you need to supplement your response to include a brief description of your NSSS vendor interface program that describes its functioning; confirms that the program will remain functional throughout the plant life; confirms that periodic contact with the vendor is initiated and maintained which assures that all applicable information is received; and describes a positive feedback method that is applied to assure licensee receipt of technical information issued by the vendor.

Enclosure 3

REQUEST FOR ADDITIONAL INFORMATION
RELATED TO ITEM 2.2, PART 1

By letter dated June 26, 1984, the Tennessee Valley Authority responded to Item 2.2.1 "Equipment Classification (Program For All Safety Related Components)" of Generic Letter 83-28 for the Bellefonte Nuclear Plant, Units 1 and 2. Based on our review of that response, we find additional information is needed as follows.

1. With respect to Item 2.2.1.3 of Generic Letter 83-28, the applicant states that plant activities that could affect equipment on the list of critical systems, structures or components (CSSC) are prescribed by instructions appropriate to the circumstances. However, it is not clear that these instructions, or similar instructions, apply to all activities defined in the introduction of 10 CFR 50, Appendix B, and not just to those activities that affect equipment. Also, in response to Item 2.2 of Generic Letter 83-28, the applicant refers to documentation that is required prior to performing maintenance or modification activities. The relationship of this documentation to the instructions described above is not clear. Nor, is it clear how the instructions identify a safety-related activity as safety-related. The applicant should describe in detail the procedural path that leads all personnel involved in any safety-related activity to the identification of that activity as safety-related and also to the appropriate instructions to be followed in performing the activity.

   If different procedural paths are required for different types of safety-related activities, you should describe each of these.