



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 58 TO

FACILITY OPERATING LICENSE NO. DPR-34

PUBLIC SERVICE COMPANY OF COLORADO

FORT ST. VRAIN NUCLEAR GENERATING STATION

DOCKET NO. 50-267

1.0 INTRODUCTION

In letter dated April 23, 1987, the Public Service Company of Colorado requested a change to the Technical Specifications for Fort St. Vrain Nuclear Generating Station. The proposed change was mainly concerned with allowing the use of external test signals for testing equipment. Present Technical Specifications only allow the use of internal test signals. Both the internal and external test signals are to be calibrated to traceable NBS standards. This change is all inclusive within the Technical Specifications with the exception of the scram and rod withdrawal prohibit startup channel calibration requirements. An applied test signal, whether internal or external demonstrates functional operability and verification of channel response within a specified range and accuracy. The testing process will ensure the capability of safety systems to perform their intended function using either an external or internal test signal. Proper surveillance procedures are stated to exist to ensure that appropriate calibration and verification test methods are performed to demonstrate operability requirements.

The Fort St. Vrain proposed Technical Specifications change also requests to make some editorial changes. These changes are to revise selected tables to display requirements in vertical tables.

2.0 EVALUATION

The equipment was originally designed only with the capability for internal calibration. This was accepted by the staff. In this change, the licensee proposes that an external test signal calibrated to the same standards may also be used.

The basic process for testing the equipment remains unchanged. Only the source of the test signal is different, but the test signals will be equivalent, as they are both calibrated to traceable NBS standards.

Thus, the equipment is calibrated to an equivalent level of accuracy, and can perform it's design function acceptably.

One potential concern is that the licensee could fail to properly realign a channel after calibration with an external test signal. However, the instrumentation in the plant protective system is designed to be tested in accordance with IEEE Standard No. 279. Calibration activities are usually controlled by written procedures. The staff concludes that these design standards and the use of procedures are an acceptable means of dealing with this potential concern.

A second potential concern is that incorrect use of the external test signals could place the reactor or reactor systems in an unsafe condition. However, at Fort St. Vrain, the protective system channels are independent from control system channels. Hence, an erroneous test signal cannot cause an undesirable control system response. If an erroneous test signal is applied, the channel may test "inoperable". The licensee will then have to correct the problem within the requirements of the Technical Specifications. The staff concludes that there will not be a problem from erroneous external test signals.

The proposed Technical Specifications changes are, therefore, acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

The amendment relates to changes in the installation or use of facility components located within the restricted area. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria (c)(10) for categorical exclusion set forth in 10 CFR §51.22. Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

The staff has concluded, based on the considerations discussed above that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: January 22, 1988

Principal Contributor: R. Lasky, ICSB