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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 73 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 AND BACKGROUND

By letter dated July 14, 1989, the licensee proposed new Technical Specifications (TS) addressing surveillance of the station batteries. These changes reflected the Technical Specification Upgrade Program (TSUP) and other relevant standards. The requested changes are discussed and evaluated in the following section.

2.0 EVALUATION

The following changes to Surveillance Requirements (SR) are evaluated:

SR 5.6.1

This section concerning the standby diesel generator surveillance is changed to consistently describe the standby diesel generator.

No other changes are made to this specification or its basis. These are purely editorial changes for clarity and are acceptable.

SR 5.6.2

This action is extensively revised to upgrade surveillance of the station batteries. The existing specification has very limited requirements, and thus the change represents substantial improvement in assuring reliable battery operation. This section generally reflects and is consistent with the proposed TSUP specifications. These were evaluated in the Technical Evaluation Report dated April 19, 1989, and found to be acceptable. Specific changes are discussed below.

SR 5.6.2.a.2 - This surveillance requirement was proposed in TSUP as a measurement of total battery terminal voltage. The current proposal specifies the total terminal voltage only in terms of the individual cell voltages based on the battery having 58 or more cells. It is the staff's understanding that the battery will always have at least 58 cells or be declared INOPERABLE. On this basis, this change is acceptable.

SR 5.6.2.b - The battery overcharge voltage criteria has been revised downwards to 145 volts. This is conservative and therefore acceptable.

SR 5.6.2.b.3 - The minimum electrolyte temperature for Station Batteries 1A and 1B was raised to 70 degrees F vice 60 degrees F in TSUP. This change is in accordance with actual load profile analyses. This variation is small and within the expected environmental tolerance of the batteries. Therefore, the staff finds this change acceptable.

SR 5.6.2.c.4.c - The required current from Battery Charger 1D was revised downward to 345 amperes. This reflects the setting of the charger's current limiter. However, this is sufficiently high to allow the Battery Charger 1D to substitute for any of the other battery chargers. Thus this change is acceptable.

SR 5.6.2.e.1 - The endpoints for the discharge test of Station Batteries 1A and 1B have been revised from the TSUP values. These changes are reflected in a revised load profile analysis. These changes are considered acceptable in that equivalent endpoints are specified, although specific parameters have changed. Thus, this change is acceptable.

SR 5.6.2.f - The margin for the performance discharge test has been revised to 95% from Station Batteries 1A and 1B vice 90% from the TSUP proposal. This is conservative and therefore acceptable.

The balance of SR 5.6.2 is the same as the TSUP proposal and was reviewed in the April 19, 1989 TER. Based on the TER and the findings above, the staff concludes the revised SR 5.6.2 is acceptable.

TABLE 5.6.2-1 and NOTES

This table is very similar to and consistent with the TSUP proposal. Two changes have been made relative to the TSUP proposal. First, the minimum acceptable specific gravity for the pilot cell has been raised to 1.210 vice 1.205 in the TSUP proposal. This is conservative because the greater specific gravity is indicative of a higher level of charge in the battery. A second change was the removal of note (6) from the TSUP proposal. This note is inappropriate for the new Lead Antimony Batteries and has been deleted. The balance of TABLE 5.6.2-1 and NOTES is as proposed in TSUP. Therefore, TABLE 5.6.2-1 and NOTES as proposed are acceptable.

SR 5.6.2 Basis

The Basis for SR 5.6.2 has been expanded and revised along the lines used in the TSUP proposal. Specific parameters have been changed to be consistent with this proposal. The revised basis is acceptable.

Summary

The staff has reviewed the licensee's proposals for improved surveillance of the station batteries and found them acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

The amendment involves a change in the surveillance requirements, and changes in requirements with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. 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 exposures. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the 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 the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: November 15, 1989