



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 45 TO FACILITY OPERATING LICENSE NO. NPF-57

PUBLIC SERVICE ELECTRIC & GAS COMPANY

ATLANTIC CITY ELECTRIC COMPANY

HOPE CREEK GENERATING STATION

DOCKET NO. 50-354

1.0 INTRODUCTION

By letter dated October 10, 1991, the Public Service Electric & Gas Company and Atlantic City Electric Company (the licensees) submitted a request for changes to the Hope Creek Generating Station, Technical Specifications (TS). The requested changes would separate the surveillance requirements associated with the buried fuel oil transfer piping's cathodic protection system from those used to determine diesel generator operability.

2.0 EVALUATION

TS 4.8.1.1.2 delineates surveillance requirements that are to be performed to demonstrate operability of the Diesel Generators. TS 4.8.1.1.2.g delineates the surveillance requirements necessary to verify that the impressed current cathodic protection system for the buried portion of the fuel oil transfer piping is operable. Since this surveillance requirement is currently a sub-item of TS 4.8.1.1.2, literal interpretation of the TS could preclude maintenance on the cathodic protection system (if that maintenance requires that the system be made inoperable) and/or potentially result in a station shutdown due to failure of the cathodic protection system causing all the Diesel Generators to be declared inoperable.

The cathodic protection system was installed by the licensee to protect the buried fuel oil transfer piping from external corrosion. Installation and testing of this system is included in the guidance provided by Regulatory Guide 1.137 (Revision 1, October 1979). The licensee has proposed removing the cathodic protection system surveillance requirements from TS 4.8.1.1.2 and creating a separate TS (TS 4.8.1.1.4) to verify the operability of the cathodic protection system. Additionally, PSE&G proposed to create a new action statement (TS 3.8.1.1.h) to delineate the actions necessary if the cathodic protection system is inoperable for more than thirty days.

Based on the staff's review of Section 9.5.4 of the Hope Creek Safety Evaluation Report (SER) (NUREG-1048) and Section 9.5.4 of the Updated Final Safety Analysis Report (UFSAR); the staff agrees that the buried portion of the fuel oil transfer piping does not determine diesel generator operability. Therefore, the cathodic protection system for the buried fuel oil transfer piping does not affect diesel generator operability. The review of the above

referenced documents show that the buried portion of the fuel oil transfer piping is provided to allow for convenient loading of diesel fuel at a truck/barge fill connection outside the restricted area. The fuel oil is transferred from this connection through a section of underground piping that is common to all four Diesel Generators and then into the plant where it splits into a distribution manifold. The buried piping is not safety related, since an emergency fill connection is provided inside the diesel generator building, which can be isolated from the buried portion of the fill piping by an isolation valve located inside the diesel generator building. This emergency fill connection provides a protected fill path to the diesel fuel oil storage tanks; none of this protected fill path is buried piping. Additionally, UFSAR Section 9.5.4.2.6 describes an alternate method for filling the fuel oil storage tanks using temporary hoses to deliver oil directly into the storage tanks should the emergency fill connection become unusable. Furthermore, the Hope Creek fuel oil storage system is sized in accordance with the guidance of Standard Review Plan 9.5.4 and Regulatory Guide 1.137 with sufficient fuel to operate a diesel engine continuously for approximately seven days and six hours; so that refilling the tanks during a Loss of Offsite Power or a Design Basis Accident is not likely.

Therefore, the staff finds that the licensee's proposal to remove the cathodic protection system surveillance requirements from the TS that determine diesel generator operability is acceptable. The licensee's proposal to create a new action statement to be applied when the cathodic protection system is inoperable for more than 30 days is also acceptable. The cathodic protection system is designed to limit external corrosion to the buried piping over long periods of time. In addition to the cathodic protection system the piping has a protective coating to limit external corrosion. Therefore, the induced current cathodic protection system can be disconnected for short periods of time with minimal corrosive damage to the buried piping.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New Jersey State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32 and 51.35, an environmental assessment and finding of no significant impact has been prepared and published in the Federal Register (56 FR 57535) dated November 12, 1991. Accordingly, based upon the environmental assessment, the Commission has determined that the issuance of the amendment will not have a significant effect on the quality of the human environment.

5.0 CONCLUSION

The Commission 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) 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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Date: November 19, 1991