

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

April 13. 1992

Docket No. 50-354

Mr. Steven E. Miltenberger Vice President and Chief Nuclear Officer Public Service Electric and Gas Company Post Office Box 236 Hancocks Bridge, New Jersey 08038

Dear Mr. Miltenberger:

SUBJECT: ACCEPTABLE ELECTRICAL CABLES, HOPE CREEK GENERATING STATION (TAC NO. M82876)

This letter is in response to a Public Service Electric and Gas Company (PSE&G) letter dated March 19, 1992. The March 19, 1992 letter summarized an NRC and PSE&G telephone conference that was held on March 3, 1992 (the PSE&G letter contained a typographical error indicating that the telephone conference was held March 4, 1992). The telephone conference was held to discuss the acceptability of the use of PVC insulated electrical cables at the Hope Creek Generating Station. The PSE&G letter did not request a reply unless the NRC staff's position differed from the PSE&G letter. The staff agrees that the letter accurately reflects the content of the March 3, 1992 telephone conference. However, in the interest of providing a clear and concise statement of the staff's position on the issue of acceptable electrical cables the following information is provided.

The staff's electrical cable position is stated in Branch Technical Position (BTP) CMEB 9.5-1, "Guidelines for Fire Protection for Nuclear Power Plants." The BTP is contained in Section 9.5.1 of the Standard Review Plan (SRP) (NUREG-0800). Section C.5.d.(3), of the BTP states in part: "The use of plastic materials should be minimized. In particular, halogenated plastics such as polyvinyl chloride (PVC) and neoprene should be used only when substitute noncombustible materials are not available." BTP Section C.5.d.(3) was not intended to apply to electrical cable construction. When the BTP was written, the staff recognized that the insulation requirements for electrical cables would necessitate the use of plastic materials. Therefore a separate BTP Section, C.5.e., "Electrical Cable Construction, Cable Trays, and Cable Penetrations," was written to provide specific guidance regarding acceptable electrical cables. Therefore, any electrical cable that meets or exceeds the requirement of BTP Section C.5.e is considered acceptable by the NRC.

The PSE&G letter also requested that the NRC staff verify PSE&G's conclusion that Underwriters Laboratories, Inc.'s Standard UL 1581 was equivalent to the Institute of Electrical and Electronics Engineers, Inc.'s Standard IEEE 383. The staff reviewed the applicable sections of the above referenced standards and the staff agrees with PSE&G's conclusion that the applicable flame tests are essentially equivalent in both standards. PSE&G's March 19, 1992 letter

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stated that UL 1581 and IEEE 383 will be transmitted under separate cover. In addition to the standards provided by PSE&G, the NRC staff was able to obtain both standards from the NRC Technical Library.

If you have any questions regarding the information in this letter please feel free to contact me at (301) 504-1422.

Sincerely,

Stephen Dembek, Project Manager Project Directorate 1-2 Division of Reacter Projects - 1/11 Office of Nuclear Reactor Regulation

cc: See next page

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