



PSEG Public Service
Electric and Gas
Company

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Robert L. Mittl General Manager
Nuclear Assurance and Regulation

July 27, 1984

Director of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, Maryland 20814

Attention: Mr. Albert Schwencer, Chief
Licensing Branch 2
Division of Licensing

Gentlemen:

HOPE CREEK GENERATING STATION
DOCKET NO. 50-354
DRAFT SAFETY EVALUATION REPORT
OPEN ITEMS

Attached for your review and approval is the resolution to the Draft Safety Evaluation Report (DSER) open items in Sections 2.4.5, 3.4.1, and 3.5.1.4 concerning "floating missiles". A signed original of the required affidavit is provided to document the submittal of this DSER open item response.

Should you have any questions or require any additional information on this item, please contact us.

Very truly yours,

Attachment

C: D. H. Wagner (w 4 sets of attach)
USNRC Licensing Project Manager

W. H. Bateman (w/response only)
USNRC Sr. Resident Inspector

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
DOCKET NO. 50-354


PUBLIC SERVICE ELECTRIC AND GAS COMPANY

Public Service Electric and Gas Company hereby submits the enclosed Hope Creek Generating Station Draft Safety Evaluation Report open item responses.

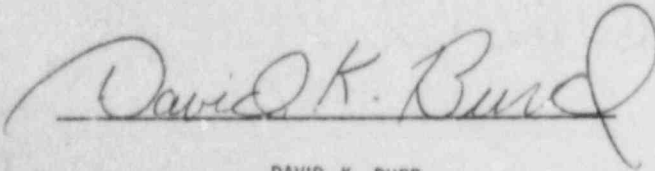
The matters set forth in this submittal are true to the best of my knowledge, information, and belief.

Respectfully submitted,

Public Service Electric
and Gas Company

By: 
Thomas J. Martin
Vice President -
Engineering and Construction

Sworn to and subscribed
before me, a Notary Public
of New Jersey, this 27th day
of July 1984.



DAVID K. BURD
NOTARY PUBLIC OF NEW JERSEY
My Comm. Expires 10-23-85

GJ02

HOPE CREEK GENERATING STATION

DSER OPEN ITEM NO. 5c (Section 2.4.5) Probable Maximum Surge and Seiche Flooding

As indicated in Section 2.4.1, the applicant states that all accesses to safety-related structures (doors and hatches) are provided with water tight seals designed to withstand the head of water associated with the flood protection levels. But, the applicant has not indicated whether the water-tight doors are designed to withstand either the combined loading effects of both static water level and the dynamic wave impact or, as cited in Sections 3.4.1 and 3.5.1.4 of this report, the impact of a barge propelled by winds and waves associated with a hydrologic event that floods plant grade.

DSER OPEN ITEM NO. 28f (Section 3.4.1)

The applicant has not addressed our concern associated with the structural integrity of the safety-related structures during the design basis flood and the effects of "floating" missiles. Since the Delaware River is a navigable waterway with the refineries and naval shipyard in Philadelphia, the applicant must address the effects of ships and boats with a draft of less than 12 feet hitting the walls and penetrations of safety-related structures. Some ships which do travel up and down the Delaware River and can have a draft of less than 12 feet are the "Newport" class LST's (LST-1179 series), the "DeSoto County" class LST's (LST-1173 series), the "Anchorage" class LSD's (LSD-36 series), submarines (especially the non-nuclear power submarines), tug boats, visiting "American" ships from foreign countries, oil tankers (when they are empty), and a large host of pleasure craft.

DSER OPEN ITEM NO. 32 (Section 3.5.1.4)

[Based upon our review of the missile spectrum, we conclude that the spectrum was properly selected for tornado generated missiles but does not include "floating missiles" as part of the design basis flood and therefore does not meet the requirement of General Design Criteria 2 and 4 with respect to protection against natural phenomena and missiles.] The plant design does meet the guidelines of Regulatory Guides 1.76 and 1.117 with respect to identification of missiles generated by tornadoes and is, therefore, acceptable. [The missile spectrum does not meet the acceptance criteria of SRP Section 3.5.1.4. We will report resolution of this item in a supplement to this SER].

DSER OPEN ITEM NO. 33 (Section 3.5.2)

The design of the facility for providing protection from externally generated missiles does not meet the applicable acceptance criteria of SRP Section 3.5.2 and the requirements of General Design Criteria 2 and 4 with respect to missile and environmental effects. We will report resolution of these items in a supplement to this SER.

REPONSE TO DSER OPEN ITEMS NOS. 5c, 28f, 32 and 33

Attached is a report entitled "An Analysis of the Likelihood of Waterborne Traffic on the Delaware River Impacting the Hope Creek Generating Station in Severe Storms" prepared by Arthur D. Little, Inc. for Hope Creek Generating Station. Also attached are reports prepared for Hope Creek Generating Station, by Meteorological Evaluation Services, and Dames and Moore that are referenced in the Arthur D. Little report.

The reports demonstrate that the probability of a "floating missile" impacting Hope Creek Generating Station is significantly less than 10^{-6} per year. The 10^{-6} per year figure is referenced in Standard Review Plan Section 2.2.3 as an acceptable expected occurrence rate for an analysis if, when combined with reasonable qualitative arguments, the realistic probability can be shown to be lower. Based on the analyses performed, Public Service Electric and Gas Company concludes that the impact of a "floating missile" need not be considered in the design bases of Hope Creek Generating Station.