

JUL 10 1985

Docket Nos. 50-354
50-355

Public Service Electric & Gas Company
ATTN: Mr. T. J. Martin
Vice President
Engineering and Construction
80 Park Plaza - 17C
Newark, New Jersey 07101

Gentlemen:

Subject: Inspection 84-21

This refers to your letter dated April 24, 1985, in response to our letter dated March 25, 1985.

Thank you for informing us of the corrective and preventive actions documented in your letter. These actions will be examined during a future inspection of your licensed program.

Your cooperation with us is appreciated.

Sincerely,

Stewart D. Ebnetter, Director
Division of Reactor Safety

cc:

A. E. Giardino, Manager, Quality Assurance Engineering and Construction
R. L. Mittl, General Manager, Nuclear Assurance and Regulation
A. J. Pietrofitta, General Manager, Power Production Engineering, Atlantic Electric
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
State of New Jersey

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Public Service Electric and
Gas Company

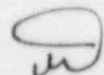
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bcc:
Region I Docket Room (with concurrences)
Senior Operations Officer (w/o encl)
DRP Section Chief
J. Grant, DRP

RI:DRS
Paolino/gcb
5/24/85
c/c for R.P.

RI:DRS
Anderson

c/c 5/24/85



RI:DRS
Durr

7/2/85

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RL HOPE CREEK 84-21 - 0001.0.1
05/22/85

Thomas J. Martin
Vice President
Engineering and Construction

80 Park Plaza, Newark, NJ 07101 201-430-8316 Mailing Address: P.O. Box 570, Newark, NJ 07101

April 24, 1985

Dr. Thomas E. Murley, Administrator
U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

Dear Dr. Murley:

NRC INSPECTION REPORT #84-21
NOTICE OF VIOLATION
HOPE CREEK GENERATING STATION

Your letter dated March 25, 1985, transmitted the above reference Inspection Report which contained a Notice of Violation citing one (1) item of noncompliance concerning cable installation. The following response is provided in accordance with the Notice of Violation.

As stated in Appendix A of the subject report:

10 CFR 50, Appendix B, Criterion V, states, in part, that:

"Activities affecting quality shall be prescribed...and shall be accomplished in accordance with these instruction, procedures..." (2 examples)

- 1) Section 1.1 of Cable Notes and Details Specification No. E-1406-0(sic) states, in part, that: "No safety-related cable will have an unsupported length exceeding 18 inches."

Contrary to the above, on November 7, 1984, the inspector observed a cable bundle exiting from conduit 14CRMx12 and entering raceway 14CTPV01(sic) with an unsupported span of thirty (30) inches.

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- 2) Work Procedure No. SWP-E-17, Revision 6, item 8, states: "Verify that cable minimum bend radius is maintained where trained or covered after installation."

Drawing E-1000 Revision 10 identifies minimum bend radius for C03 cable as 2.11 inches and training radius as 1.32 inches.

Contrary to the above, on November 7, 1984, the inspector identified the C03 cable exiting conduit No. 14CRMX11 trained into a loop of approximately 3/4 inch into Tray No. 14 CTVP01.

Corrective Steps Taken and Results Achieved

- 1) At the time of the subject NRC Inspection, support requirements for cable installed in an angular orientation were not specifically addressed. Drawing E-1408-0 allowed a maximum unsupported cable length of 18 inches in the horizontal plane and 48 inches in the vertical. Acceptance of the installed configuration was based on measurement of the horizontal distance spanned by the cable (10") rather than measurement of the length of unsupported cable (30").

Given that the installed condition was not in accordance with the most literal interpretation of the requirement, Nonconformance Report (NCR) No. 5460 was issued to document the condition and provide appropriate corrective action. NCR No. 5460 was dispositioned "use-as-is", because the installation was determined to meet the intent of the requirement.

- 2) The cited violation of minimum bend radius requirements was also documented on NCR-5460. In accordance with the NCR disposition, the cable was retrained to the correct minimum bend radius. Continuity and megger tests were performed to ensure that the cable had not been damaged.

Corrective Steps Taken to Preclude Recurrence

- 1) To clarify the installation requirements for support of exposed cable, DCN No. 48 was issued against drawing E-1408-0. DCN No. 48 has since been incorporated as sheet 1.1.1 of drawing E-1408-0, which allows a maximum unsupported cable length of 48 inches, provided that the horizontal span does not exceed 18 inches.

Training in the revised requirements was provided to the appropriate Bechtel Field Engineering and Quality Control personnel.

- 2) To determine the extent of minimum bend radius problems, Bechtel Quality Control personnel performed a walkdown of 27 cable installations in various areas of the plant. No unacceptable installations were identified. To further ensure that the cited case was isolated, Bechtel Field Engineering personnel will conduct a walkdown of an additional 100 previously inspected cable installations. If any additional bend radius violations are identified, they will be documented by NCR and a more extensive sample will be reinspected.

Additional training was provided to the appropriate Bechtel Quality Control Engineers regarding minimum bend radius criteria and inspection methods. Further training on the subject will be provided to the applicable Bechtel Field Engineers.

The Date of Full Compliance

Completion of the walkdown inspection to identify any further cable bend radius violations and training of Field Engineering personnel in the same subject will be completed by June 15, 1985. All other actions described above have been completed.

Unresolved Item (354/84-21-03)

Your letter also requested a response to unresolved item 84-21-03 concerning the de-energization of electrical equipment heaters for the Diesel Generator alternators, Core Spray pump motors and RHR pump motors.

At the time of the Inspection Report period, the de-energized condition of the equipment heaters had been identified on Bechtel Quality Control's Maintenance Inspection Punchlist. However, the heaters had not been energized at the time due to some confusion over the responsibility for maintenance of equipment during the "Released for Test" (RFT) phase.

On November 8, 1984, Bechtel Field Engineering issued a memorandum superseding the October 25th memo referenced in the Inspection Report, to provide a list of equipment requiring internal heat even though stored in level "B" storage areas. Similarly, site procedures, SWP/P-135, "Release of Equipment/Devices to PSSUG

for Calibration or Testing" and SWP/P-15, "Maintenance of Material in Storage" were revised to define the responsibility for maintenance of equipment under the RFT program. Bechtel will continue to be responsible for maintenance of equipment until turnover to PSE&G.

To ensure that no damage resulted from the lack of internal heat in the noted equipment, the following actions were taken:

- Equipment maintenance records were reviewed to identify other equipment requiring maintenance of internal heat. Sixteen items, in addition to those listed in the NRC Report, were identified.
- All components identified as having internal heat de-energized in the affected period were subjected to an insulation resistance (megger) test on November 9, 1984, to verify that the equipment was not degraded by possible moisture intrusion. In all cases test results were satisfactory.

We have determined that the plant areas designated level "B" satisfy the level "B" storage requirements. Temperature recorders were placed in various areas of the plant when the decision was made to re-designate to level "B". These recorders have confirmed that the ambient temperature is being maintained within the range specified in ANSI N45.2.2.

Very truly yours,

TJ Martin
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C Office of Inspection and Enforcement
Division of Reactor Construction Inspection
Washington, D. C. 20555

NRC Resident Inspector
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