

NOV 6 1968

R. Boyd, Assistant Director for Reactor Projects, DRL

THRU: S. Levine, Assistant Director for Reactor
Technology, DRL

ref. for

**INSTRUMENTATION, CONTROL AND EMERGENCY POWER QUESTIONS, INDIAN POINT,
UNIT #3 - DOCKET #50-286**

Please include the following questions among those in preparation for transmittal to the applicant:

1. Please state your criteria, and design intent, with respect to the physical separation of redundant power lines (sources of offsite power) connecting the station with the Buchanan substation.
2. Our review indicates that offsite power is carried to safety feature loads via a single station auxiliary transformer. Please evaluate your design showing how it satisfies the requirements of General Design Criterion 39.
3. We have completed a preliminary review of your proposed onsite emergency power system and have concluded that your design incorporates considerable complexity in an apparent attempt to satisfy a double failure criterion. Please provide a failure mode analysis to show that this complexity in no way leads to circuit designs which violate the single failure criterion.
4. What are your criteria with respect to minimum storage requirements of emergency fuel supplies?
5. What are your criteria with respect to load margins for the emergency power system? Please justify your response on the basis of system sensitivity to unexpected load increases which diminish the design margins.
6. Please discuss, and justify, your criteria relating to the routing of redundant instrumentation, control and power cables associated with protection and safety feature equipment. Your response should include, but not necessarily be limited to, the following considerations:

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R. Boyd

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- (a) Minimum physical separation (horizontal and vertical) between instrumentation, control, and power cables.
 - (b) Minimum physical separation between redundant cables.
 - (c) Cable tray loading.
 - (d) Fire barriers at cable trays.
 - (e) Fusing and/or breaker protection for 3-phase circuits.
 - (f) Administrative responsibility for, and control over, the foregoing during design and installation.
7. Please discuss and justify your criteria relating to the physical separation of redundant instrumentation.
 8. What is the present status of the environmental tests being performed on vital components and wiring located within containment?
 9. We understand that the protection, control and engineered safety feature instrumentation systems for this reactor are identical to those for Unit #2 as described in the "Final Facility Description and Safety Analysis Report ... Unit #2 ... Docket #50-247." Please confirm.
 10. We understand that the rod withdrawal inhibit circuits which prevent withdrawal in the event of a dropped rod (or rods) will be designed in accordance with IEEE #279. Please confirm.
 11. Please state and justify your criteria relating to redundancy of radiation monitoring systems which act to prevent inadvertent gaseous and liquid releases. Also, please identify those which provide automatic isolation action, and those which do not and justify your choice in each case.

Original signed by
Olan D. Parr

for

Voss A. Moore, Chief
Instrumentation and Power Technology
Branch, DRL

RT-1044
DRL:I&PTB:DFS

cc: D. Muller
J. Murphy
bcc: S. Levine
R. Deyoung, V. Moore

OFFICE ▶	D. Sullivan	DRL	DRL	DRL		
SURNAME ▶		<i>DSullivan/plm</i>	<i>ODL for VMoore</i>	<i>SLevine</i>		
DATE ▶		11/4/68	11/5/68	11/6/68		

OCT 28 1968

Mr. Thomas W. Laughlin
Chief, Doc. Mgmt. Br.
Division of Tech.
Info. Extension
Oak Ridge, Tenn. 37831


CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
(Indian Point Nuclear Generating Unit No. 3)
Docket No. 50-286

Enclosed is a letter dated October 18, 1968, from
the above Company, transmitting Amendment No. 3
to its Application for Licenses for the Indian Point
Nuclear Generating Unit No. 3.

Original signed by
Nan M. Blunt
Roger S. Boyd
Asst. Director for
Reactor Projects
Division of Reactor
Licensing, BETH-010

7441 10-28-68

Identical Route Slip to Mr. S. G. Forbes, Phillips Petroleum Co.

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R. S. Boyd
N. M. Blunt

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