

SEP 30 1972

Docket No. 50-286

Richard C. DeYoung, Assistant Director for Pressurized Water Reactors, L

CONSOLIDATED EDISON COMPANY, INDIAN POINT NUCLEAR GENERATING UNIT NO. 3;
SECOND SET OF QUESTIONS ON INSTRUMENTATION, CONTROL AND ELECTRIC POWER
SYSTEMS, DOCKET NO. 50-286

Plant Name: Indian Point Nuclear Generating Unit No. 3

Licensing Stage: Operating License

Docket Number: 50-286

Responsible Branch and Project Manager: PWR 1 H. Specter

Requested Completion Date: October 20, 1972

Applicants response date necessary for completion of next action
planned on project: January 19, 1973

Description of response: Second Set of Questions

Review Status: Awaiting information; additional questions may be
necessary following the review of schematic drawings.

The attached questions were prepared by the L: RS, Electrical, Instru-
mentation and Control Systems Branch, based on a review of the FSAR thru
Supplement 8. Additional questions may be required following review of
the schematic drawings of the instrumentation and electric power systems.

A meeting was held with the applicant on May 18 and 19, 1971, for the
purpose of reviewing schematic drawings but the drawings were retained by
the applicant. It is therefore requested that schematic drawings which
illustrate the following circuits be submitted for review by the EI&CS
Branch:

1. Engineered safety feature actuation circuits, from the actuation logic
to and including the control circuits for the final actuation devices
(circuit breakers, motor controllers, etc.).
2. Circuits used to transfer from the offsite power supply to the onsite
(standby) power supply, including load shedding and load sequencing
circuits.

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- 3. Control and power circuits for the auxiliary feedwater system.
- 4. Control and power circuits for the diesel fuel oil transfer system.

The drawing review will concentrate on those areas of concern that were previously identified to the applicant during the drawing review for Indian Point Unit 2 and at the May 1971 meetings for Indian Point Unit 3. If these areas have been resolved, no additional questions are anticipated. Otherwise, we will be prepared to meet with the applicant to discuss the remaining areas of concern approximately two weeks following receipt of the drawings listed above.

Original Signed by
Donald F. Knuth

ESB-163
L:EI&CS:RP

Donald F. Knuth, Assistant Director
for Reactor Safety
Directorate of Licensing

Enclosure:
2nd Set of Questions

cc w/o encl:
W. McDonald, L:OPS

cc w/encl:
S. Hanauer, DETA
J. Hendrie, L:TR
A. Giambusso, L:RP
D. Vassallo, L:PWR 1
H. Specter, L:PWR 1
V. Moore, L:EI&CS
R. Pollard, L:EI&CS

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DATE ▶	7387 9/28/72	9/29/72	9/30/72		

ENCLOSURE

SECOND SET OF QUESTIONS

INDIAN POINT UNIT NO. 3

1. The response to Question 7.5.1 appears to be inconsistent with the cable separation criteria presented in FSAR Section 8.4 for cables installed in the electrical tunnels. Figure Q7.5.1 shows that 480 V power cables energized from buses 5A and 6A are installed in the lower tunnel with cables energized from buses 2A and 3A. Explain how this arrangement complies with your separation criteria.
2. Apparently there is a misunderstanding regarding the information requested by Question 7.11. Provide a description of the instrumentation available to the operator for monitoring conditions in the reactor, reactor coolant system, and containment. This description should address the number of instrument channels provided and the range, accuracy, and location of the indicators (meters, recorders, etc.). The analysis of design adequacy should address the margin between the ranges of indicators and recorders and the expected variations of the monitored parameters in the event of an accident.
3. With reference to the response to Question 7.16:
 - a. Describe the extent to which the pressure interlock meets the requirements of IEEE Std 279-1971.
 - b. Clarify whether or not the pressure interlock is also used to close the valves to prevent overpressurization of the RHR system.

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4. Expand the response to Question 8.8 to clarify whether or not all of the fuel storage tanks discussed are independent of the storage tanks discussed in the Unit 2 FSAR. Provide a diagram of the fuel oil storage and transfer system for the Unit 3 diesel generators and indicate any interconnections with other fuel oil systems.
5. Provide the design criteria for the instrumentation, control, and power systems associated with the auxiliary feedwater system.
6. It is noted that the normal power supply to Instrument Bus 33 is disconnected as part of the load sequencing scheme. Identify, in more specific detail than provided by Figure 8.2-5, the function served by each individual load powered from Instrument Bus 33. Discuss how this arrangement complies with the requirements of Section 4.20 of IEEE 279 regarding anomalous indications and alarms. Provide an analysis to show that no single failure coincident with loss of power to Instrument Bus 33 will prevent any protective action.
7. Table 8.2-1 indicates that several motors will be loaded above their horsepower ratings. Describe the tests that have been performed to assure that these motors can withstand loading greater than their ratings.
8. It is noted that the containment cooling fan motors provided for Unit 2 have a rating of 350 hp. Discuss your reasons for concluding that 225 hp motors are adequate for Unit 3.

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