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IPN-92-007

U.S. Nuclear Regulatory Commission
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Washington, DC 20555

Subject: **Indian Point 3 Nuclear Power Plant**
Docket No. 50-286
Response to Generic Letter 91-11

Dear Sir:

Nuclear Regulatory Commission (NRC) Generic Letter 91-11 asked licensees to provide certification that they have procedures conforming to the guidance of the Generic Letter or justification that such procedures are not needed. The enclosure to this letter provides the requested information for the Power Authority's Indian Point 3 Nuclear Power Plant.

If you have any questions, please contact Mr. P. Kokolakis.

Very truly yours,

Ralph E. Beedle
Executive Vice President
Nuclear Generation

STATE OF NEW YORK
COUNTY OF WESTCHESTER

Subscribed and Sworn to before me
this 3RD day of February 1992

Notary Public **ADELAIDE-STRAFFORD HARRIS**
Notary Public, State of New York
No. 4990488

Qualified in Westchester County
Commission Expires January 6, 1994

cc: See next page

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Introduction

Generic Letter 91-11 provides licensees with information and recommendations to resolve Generic Safety Issues 48, "LCOs for Class 1E Vital Instrument Buses," and 49, "Interlocks and LCOs for Class 1E Tie Breakers." Licensees must provide certification that they have implemented appropriate procedures conforming to the guidance of the letter or prepare justification that such procedures are not needed. The Authority has reviewed the Generic Letter. The evaluation for the Indian Point 3 plant is provided below.

Background - 120V AC Power System Description (Vital Instrument Buses) - Generic Issue 48

The power supply for the Indian Point 3 (IP3) 120 volt AC instrumentation consists of four buses. The four instrument buses receive power from static inverters, which in turn are powered from the DC power panels. The static inverters have an automatic* backup power feed in case the DC power panels are deenergized, and breakers that can bypass the static inverters completely for maintenance. The table below lists the instrument buses, the DC power panel that normally provides power, and the alternate power sources for the instrument buses (MCC = Motor Control Center).

<u>Instrument Bus</u>	<u>Normal Feed</u>	<u>Automatically Transfers To (Bypass Feed)</u>
31	DC bus 31	MCC-34 (MCC-34)
32	DC bus 32	MCC-33 (MCC-33)
33	DC bus 33	MCC-39 (MCC-39)
34	DC bus 34	MCC-36B*(MCC-36C)

* Note: The transfer for instrument bus 34 is manual, not automatic.

Evaluation - Vital Instrument Buses and Onsite Sources

Generic Letter recommendation: Ensure the plant has procedures that include time limitations and surveillance requirements.

a. Time Limitations

The current IP3 Technical Specifications state that the reactor shall not be brought above the cold shutdown condition unless no more than one 120 volt AC Instrument Bus is on the backup power supply. The Technical Specifications do not give a time limit for one instrument bus being supplied by a backup power supply. The Authority will establish administrative controls to limit the time that an instrument bus can be on a backup power supply to 7 days when above cold shutdown. These administrative controls will identify the actions required to be taken if it is anticipated that an instrument bus will be on a backup power supply for more than 7 days when above cold shutdown.

b. Surveillance Requirements

For static inverters 31, 32, and 33, a control room alarm is activated if a static inverter static transfer switch has automatically transferred from the inverter output to the alternate power source. For these inverters the procedure to switch the instrument bus to the bypass feed uses the static inverter static transfer switch to assure bus synchronization. Therefore, for inverters 31, 32, and 33, switching to the bypass feed will also activate the control room alarm. For inverters 31, 32, and 33, there is local indication of whether the inverter or the alternate source is supplying the instrument bus loads. For instrument bus 34, there is no automatic transfer to the alternate source, and no control room alarm if the alternate source is supplying the instrument bus. However, failure of inverter 34 will result in a loss of instrument bus 34, and numerous control room alarms. Additionally, routine nuclear plant operator tours include recording the static inverter operating currents. Operating instrument bus 34 from either alternate power supply (or instrument buses 31, 32, or 33 in the maintenance bypass mode) would reduce the static inverter operating current to zero. Because the static inverters have the control room alarms and local indications described above, there is no need for surveillance of the power supply status for the instrument buses.

Background - Bus Tie Breakers - Generic Issue 49

IP3 has two tie breakers between redundant 480 volt AC buses; there is a third 480V tie breaker in the 480V system, but it intentionally (automatically) ties together 480V buses 2A and 3A to form a third emergency power system train. In the 125 volt DC system there are two tie breakers, one between buses 31 and 32, and one between buses 33 and 34.

Evaluation - Bus Tie Breakers

Generic Letter recommendation: Ensure the plant has procedures that include time limitations and surveillance requirements.

DC System

a. Time Limitations

The IP3 procedure entitled "Operation of Onsite Power Sources" (SOP-EL-5) requires that "Whenever the plant is above cold shutdown, the DC power buses shall not be tied together." Because tie breaker closure is prohibited, no limit on the amount of time a tie breaker may remain closed is necessary.

b. Surveillance Requirements

The position of the DC tie breakers is checked during the performance of the "Locked Valve Check Off List" (performed monthly as required by procedure PT-M41).

AC System

a. **Time Limitations**

The IP3 Technical Specifications (section 3.7) require that the reactor shall not be brought above the cold shutdown condition unless the bus tie breakers between buses 5A and 2A, and between buses 3A and 6A are open. Because tie breaker closure is prohibited, no limit on the amount of time a tie breaker may remain closed is necessary.

b. **Surveillance Requirements**

The Authority has implemented procedures to maintain the 480V AC tie breakers between redundant buses in the test position and remove the control circuit fuses before going above cold shutdown. With the breakers in the test position and the control circuit fuses removed, no surveillance is considered necessary.