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January 20, 2000

Re: Indian Point Unit No. 2  
Docket No. 50-247

Document Control Desk  
US Nuclear Regulatory Commission  
Mail Station P1-137  
Washington, DC 20555-0001

Subject: Supplementary Information in Support of Proposed Technical Specification Amendment Consisting Of Changes to the Degraded Voltage Trip and The Underfrequency Reactor Trip Surveillance Tests

Reference: Con Edison Letter dated July 26, 1999, James S. Baumstark to Document Control Desk, "Proposed Technical Specification Amendment Consisting Of Changes to the Degraded Voltage Trip and The Underfrequency Reactor Trip Surveillance Tests."

By the referenced letter, we transmitted an Application for Amendment to the Operating License for the subject proposed Technical Specification changes. On December 1, 1999 the NRC posed some questions pertaining to the application. Attachment I to this letter provides our response to NRC questions on the proposed Technical Specification amendments.

Should you or your staff have any questions regarding this submittal, please contact Mr. John F. McCann, Manager, Nuclear Safety and Licensing.

Very truly yours,



Attachment

A001

cc: Mr. Hubert J. Miller  
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ATTACHMENT I

RESPONSE TO NRC QUESTIONS PERTAINING TO PROPOSED TECHNICAL  
SPECIFICATION AMENDMENT ON DEGRADED VOLTAGE TESTING AND  
UNDERFREQUENCY REACTOR TRIP TESTING

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
INDIAN POINT UNIT NO. 2  
DOCKET NO. 50-247  
JANUARY 2000

The following is in response to questions pertaining to the proposed Technical Specification amendment, which were posed by the NRC during a December 1, 1999 conference call.

- Why does the proposed amendment provide for a 72-hour allowed outage time for the degraded voltage channels, since the relevant test takes approximately 10 minutes to perform? What is the rationale for this amount of time?

While the test takes approximately 10 minutes to perform, the 72-hour allowed outage time is being requested to allow for any maintenance deemed necessary following the test. Since the degraded voltage relays trip the 480V bus upon sensing degraded voltage, power is restored to the 480V bus by its associated Emergency Diesel Generator (EDG). If the EDG for the bus is inoperable (existing Technical Specifications permit a 7-day allowed outage time for an EDG), power will not be restored to the 480V bus whether or not the degraded voltage channels are available. Therefore, the requested degraded voltage 72-hour allowed outage time should be considered in the context that the related EDG is currently permitted a 7-day allowed outage time. We note that a 72-hour EDG outage time has been accepted at Indian Point 3 (IP3), see Table 3.5-3, Item 5 of IP3 Technical Specifications (approved with Amendment No. 54). This degraded voltage outage interval was accepted for IP3 in part because of a comparable EDG outage interval.

In our referenced July 26, 1999 submittal, Paragraphs 2 and 3 of Section II - Evaluation of Changes in the Safety Assessment (Attachment III, page 2 and 3 of 5) describe scenarios and operator actions if a degraded voltage occurs during testing. For maintenance, the scenarios would be similar because following the stripping of three 480V buses on degraded voltage, the operator would trip the remaining 480V bus and manually load it to its EDG (per Alarm Response Procedures and Emergency Operating Procedures if during an accident). As with testing, the safety impact is within that of the EDG limiting condition of operation where the plant relies on the remaining two EDGs to provide minimum safeguards for the entire accident scenario. As with testing, the degraded voltage channels will be bypassed for only one 480V bus at a time, and the two EDGs (including required safety features supplied by the two EDGs) not associated with this bus must be operable. Therefore, the basis for the acceptability of the degraded voltage 72-hour allowed outage time, is that an EDG is currently permitted a 7-day allowed outage time.

- Explain the term “clarification” in Paragraphs 1 in Section I - Description of Changes in the Safety Assessment (Attachment III, page 1 of 5), which states, “In Table 3.5-3, Item 3.b (“480V Emergency Bus Undervoltage (Degraded Voltage)”), a clarification was provided as to what actions the operator should take if the minimum conditions could not be met. The change was to delete the Operator Action of “Cold shutdown” and replace it with a detailed Operator Action via a note. The note states:
  - ‘a) If the 138kV source of offsite power and the 13.8kV source of offsite power are available:
    - 1) Both channels may be inoperable on one bus for a period not to exceed 72 hours;
    - 2) If one channel is inoperable after 72 hours, place the inoperable channel in trip;
    - 3) If both channels are inoperable after 72 hours, proceed to cold shutdown.
  - b) If the 138kV source of offsite power or the 13.8kV source of offsite power is not available:
    - 1) If one channel is inoperable, place the inoperable channel in trip;
    - 2) If both channels are inoperable, proceed to cold shutdown.’”

The term “clarification” refers to the requested change for the required operator actions for Item 3b of Table 3.5-3. These requested operator actions are stated in a note being added at the end of Technical Specification Table 3.5-3, describing the operator actions with the requested allowed outage time. The proposed Table 3.5-3, Item 3.b refers to this note, which is stated, “See note.” This is being added in lieu of the “Cold shutdown” statement in the existing Technical Specification Table 3.5-3, Item 3.b. We called the requested change that added the reference to the note a “clarification” in the Safety Assessment.

- How is TADOT (Trip Actuation Device Operational Testing) being satisfied for the proposed underfrequency reactor trip testing? What is being tested quarterly? On a refueling basis?

The operability of the underfrequency relays and auxiliary relays that are in a 2 out 4 bus logic arrangement is presently tested on a quarterly basis. The reactor trip logic relays that are actuated by the RCP breaker contacts are presently tested on a monthly alternating train basis. The interposing relays that trip the reactor coolant pump (RCP) breakers on the 2 out of 4 logic, as well as the RCP breaker actuation and the RCP breaker contacts (which were not previously tested on a periodic basis) are here being proposed for testing on a refueling basis. The interposing relays that trip the RCP breakers, the RCP breaker actuation, and the RCP breaker contacts can not be tested with the unit on line. The intervals for the present quarterly and alternate monthly tests will remain as is. TADOT is satisfied by the present and proposed tests for the underfrequency reactor trip, because all portions of the underfrequency reactor trip circuit will be tested at least once every refueling cycle.