John D. O'Toole
Assistant Vice Pres

Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, N Y 10003
Telephone (212) 460-2533

December 29, 1980

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

Director of Nuclear Reactor Regulation
ATTN: Mr. Steven A. Varga, Chief
Operating Reactors Branch No. 1
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Varga:

Attachment A contains our response to your letter, dated October 31, 1980, concerning item E.2 of the February 11, 1980 Confirmatory Order. Except as noted, we plan to complete all changes addressed in Attachment A before the unit returns to service from the present refueling/maintenance outage.

Attachment B contains a change of schedule for the implementation of item F.2. Meteorological Acceptance Criteria, Annex 1 part 4.C.3.

Should you or your staff have any additional questions, please contact us.

Very truly yours,

John D. O'Toole

DISTRIBUTION SERVICES UNIT
1981 JAN 5 PM 3 53
US NRC DISTRIBUTION SERVICES BRANCH

A001
S
1/1

8101060461 P

Attachment A

1. Short-Term Items - The following corrective actions should be implemented by February 1, 1981:

   a. Modify the emergency lighting system to provide illumination immediately after loss of normal lighting.

Response:

The Control Room emergency lighting system will be modified to reduce the impact of the present 8 second delay on transfer to the DC emergency lighting feed. This will be accomplished either by modifying the transfer circuit to reduce the transfer time or by supplementing the existing lighting system with self contained battery operated fixtures. We plan to implement any required modifications during our current refueling outage scheduled for completion in the spring of 1981.

   b. Replace illegible annunciator tiles.

Response:

All illegible annunciator tiles, as identified in the March 12, 1980 letter from the Essex Corporation to the NRC, were replaced.

   c. Add demarcation lines or equivalent to show functional or systematic grouping of controls and displays on panels.

Response:

This item has been completed as suggested by our consultant (Essex Corporation) on our simulator panels. It will be done in the Central Control Room before the unit returns to service.

   d. Add missing control/display identification labels.

Response:

All missing control-display labels as identified in the March 12, 1980 letter from Essex to the NRC, have been replaced.

In addition, all items suggested by our consultant, Essex Corporation, as a result of their study of our simulator will be done before the unit returns to service.

   e. Replace labels which are obscured or otherwise difficult to read.

Response:

All obscured or difficult to read labels, as identified by our consultant, Essex Corporation, have been replaced.

f. Permanently affix to panels all operational aids that have been temporarily added by operators.

Response:

All temporary aids have been replaced or permanently affixed.

g. Where color coded labels are used, provide labels with high contrast to panels.

Response:

Completed

h. Provide switch guards, or equivalent protection to minimize inadvertent switching of exposed "J" handle switches which have safety significance.

Response:

All "J" type handle switches having safety significance will be eliminated or protected. In addition, new switch handle design and colors will be installed in the Simulator and the Central Control Room following review of the new design provided by the Essex Corporation.

All the necessary changes will be done before the unit returns to service.

i. Provide visible labels where star handle switches obscure them.

Response:

This item, as in the case of the "J" type handles mentioned above, is a part of the Essex Corporation study and will be implemented before the unit returns to service.

j. Correct problems associated with the strip chart recorders.

Response:

Will be done before the unit returns to service.

New multi-point recorders have been ordered to replace existing multi-point recorders. Felt tip ink cartridge recorders have been ordered to replace capillary tube type recorders that have inking problems.

k. Store emergency operator equipment in one location/cabinet.

Response:

Will be done before the unit returns to service.

l. Provide for periodic training and exercises for operators in the donning of emergency equipment.

Response:

Will be done as part of the 1981 operator retraining program.

m. Affix permanent and visible sizing information on emergency clothing.

Response:

Will be done before the unit returns to service.

n. Provide cross indexing of data point information to improve the operator capability to use the process computer.

Response:

Will be done before the unit returns to service.

o. Make the necessary corrections and improvements to the emergency procedures.

Response:

Will be done by the end of the present outage, and before returning to service, as per our response to item E2 of the interim actions.

p. Provide a lamp test capability for all ESF system and safety significant indicator and status monitoring lamps.

Response:

We are already committed under the terms of the NRC Confirmatory Order dated February 11, 1980 to complete an engineering study of the entire annunciator system at Indian Point No. 2 by December 1981. This engineering study will identify specific electrical modifications to optimize the "Human Engineering" of the IP2 Central Control Room. We plan to evaluate the advantages and disadvantages of "lamp test" capability modifications as part of this study. Capability for "lamp test" will require replacement of existing indicating lights with physically similar units having "push to test" features and will typically require routing of appropriate neutral or negative wires to the vicinity of the light. In some cases, these wires are available in other Control Room panels; in other cases they must be routed from field equipment. In view of the number of lights involved, our desire to prevent overcrowding of wires in the Control Room panels and existing duplicate indication for specific equipment on different Control Room panels, we request that this action be taken on a schedule compatible with the more rigorous Confirmatory Order commitment.

2. Longer-Term Items - The following corrective actions should be implemented by May 1, 1981:

a. Provide a system for operator communication between the SO panel and the ESF panels.

Response:

Noise levels measured by our consultant (Essex Corporation) in the Central Control Room indicated the following measurements:

65 DB (A weighted scale) for SO panel
60 DB (A weighted scale) for Flight panel

These measurements are within the guideline established by the NRC (Reference Human Engineering Guide to Control Room Evaluation. Volume 2, Human Engineering Guideline Page CRE-11 issued July, 1980).

Therefore, no aciton is contemplated at this time.

b. Correct the deficiency in the steam driven auxiliary feedwater manual flow controllers.

Response:

Will be done before the unit returns to service

c. Correct the deficiency associated with the green and green/white annunciator tiles.

Response:

We will remove all condition indication from alarm system for the purpose of "Black Board Operation" at normal operating conditions. We will ultimately be left with only white-off normal points.

The deficiency will be eliminated before the unit returns to service.

d. Increase the flash rates of the annunciators to 3 to 5 cps.

Response:

We do not propose to change the flash rate of our exising annunciators at this time since we believe it would create a conflict with the design of our new TMI assessment panel annunciator. The existing electro-mechanical supervisory panel annunciators flash "bright" on "alarm" and "dim" on "return to normal". The flash rate for both "alarm" and "return to normal" is one (1) flash per second. A newer model solid state annunciator with greater alarm point capacity was purchased for the TMI related Accident Assessment panel. This unit flashes "fast" on alarm and "slow" on "return to normal". The "fast" flash rate is three (3) flashes per second; the "return to normal" flash rate is one (1) flash per second. We are already commited by the NRC Confirmatory Order dated February 11, 1980 to consider rearrangements and hardware changes to optimize the "Human Engineering" of the annunciator system. We believe this specific change, if made in advance of other potential changes could cause operator confusion.

e. Correct the deficiencies in switch position nomenclature to agree with convention.

Response:

Appropriate labels will be added to correct the deficiencies in switch position nomenclature before the unit returns to service.

f. Provide a system to improve communication between operators wearing protective equipment.

Response:

Our investigation of the availability and proper qualification of protective equipment with built-in communication system is still in progress.

We will advise you, in March, 1981, of the state of our investigation.

Attachment B

The six (6) months interim action item F2, Meteorological Acceptance Criteria, stated in Annex 1, part 4.C.3 that a functional back-up communications link be installed. Our response stated that an interim functional back-up communications link is being presently provided via telephone lines and that a permanent functional back-up communications link, using microwave radio and utilizing towers to Manhattan, was scheduled to be operational by January, 1981. Due to difficulties in obtaining the necessary leases and equipment the permanent functional backup link will not be completed until June, 1981. Until that time, we will continue to use the interim functional back-up communication link.