

POWER AUTHORITY OF THE STATE OF NEW YORK

10 COLUMBUS CIRCLE NEW YORK, N. Y. 10019

(212) 397-6200

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June 8, 1981

IPN-81-40

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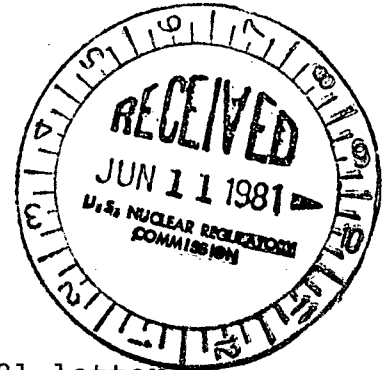
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SENIOR VICE PRESIDENT
& GENERAL COUNSEL

Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Subject: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
Response to NRC Generic Letter 81-04,
"Emergency Procedures and Training for
Station Blackout Events"



Dear Sir:

This letter responds to your February 25, 1981 letter, "Emergency Procedures and Training for Station Blackout Events (Generic Letter 81-04)". Generic letter 81-04 requested that specific actions (items a, b, c, d, e, f and g) be considered during a review of procedures and training with regard to mitigating station blackout events or the consequences thereof.

The Westinghouse Owners Group (W-OG) has authorized Westinghouse to proceed with the development of a generic guideline for "Loss of All AC Power". The W-OG Procedure Subcommittee has revised their schedule to submit these guidelines by September 1, 1981, with W-OG Seminar presentation on or about October 1, 1981 to address items a, b, and g of generic letter 81-04. This schedule was transmitted to the NRC in W-OG April 9, 1981 letter (OG-56). As a member of the W-OG the Authority will implement appropriate procedures and training for items a, b and g as necessary, upon completion of the W-OG generic Loss of AC Power Guideline and related seminar presentation.


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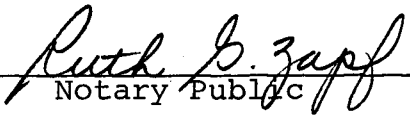
The Authority's response to each item of generic letter 81-04 is provided in Attachment I.

Very truly yours,


J. P. Bayne
Senior Vice President
Nuclear Generation

State of New York
County of New York

Subscribed and sworn to before
me this 8 day of June 1981.



Notary Public

RUTH G. ZAPF
Notary Public, State of New York
No. 30-4663428
Qualified in Nassau County
Commission Expires March 30, 1982

ATTACHMENT I

RESPONSE TO GENERIC LETTER 81-04

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO. 50-286

Review Item a

The actions necessary and equipment available to maintain the reactor coolant inventory and heat removal with only DC power available, including consideration of the unavailability of auxiliary systems such as ventilation and component cooling.

RESPONSE:

Indian Point Unit 3 emergency procedure PEP-EL-1, "Loss of Outside Power" directs the operator to maintain the reactor in a safe condition. Thereafter, the procedure directs the operator to establish AC power through one of the alternate supplies. The Authority will implement appropriate procedures and training for loss of all AC power (only DC power available), as necessary, upon completion of the W-OG generic Loss of AC power Guideline and related seminar presentation.

Review Item b

The established time available to restore AC power and its basis.

RESPONSE:

In order to utilize a basis which will be consistent with the W-OG guidelines, the Authority will await the completion of the W-OG generic Loss of AC power guideline and related seminar presentation prior to estimating the time available to restore AC power.

Review Item c

The actions for restoring offsite AC power in the event of a loss of the grid.

RESPONSE:

Indian Point Unit 3 emergency procedure "Loss of Outside Power" (PEP-EL-1) directs the operators to maintain the reactor in a safe condition. Continuous contact between the control room and both the district operator and the system operator is available so that all involved personnel are fully informed of actions taken to restore power to IP3 during a system blackout. The actions required by the system grid dispatcher are covered by Con Edison Engineering Orders:

- E.O. 4400 - "Rapid Re-Energization of the Con Edison System After a Complete System Blackout"
- E.O. 4461 - "Operating Connections at Rainey Substation"
(Buchanan Startup)
- E.O. 4479 - "Operating Connections at Buchanan Substation"

In addition, a gas turbine Engineering Order (E.O. 4067) is currently being written by Con Edison. Based on the above, the Authority feels that adequate procedures exist for restoring AC power in the event of a loss of the grid.

Review Item d

The actions for restoring offsite AC power when its loss is due to postulated onsite equipment failures.

RESPONSE:

Emergency procedure PEP-EL-1 directs the operator to maintain the reactor in a safe condition. Further guidance by the procedure directs the operator to isolate the faulted onsite equipment and to utilize one of the alternate sources of AC power. The Authority feels that this procedure adequately addresses the item d consideration.

Review Item e

The actions necessary to restore emergency onsite AC power. The actions required to restart diesel generators should include consideration of loading sequences and the unavailability of AC power.

RESPONSE:

Each diesel generator is designed to start automatically whenever an undervoltage condition exists on its associated 480V bus or on a safety injection signal. The generator output breaker will close automatically to sequentially load the diesel generator loads onto its associated bus when an undervoltage condition is detected on that bus. The loading sequence is automatically initiated for both the blackout condition and blackout with safety injection condition. Each diesel generator is equipped with two starting air motors and the diesel generator does not require AC power to start and load the equipment.

Emergency procedures for "Safety Injection" and "Loss of Outside Power" list the equipment that is automatically loaded onto the bus and directs the operator to verify that these automatic actions have occurred. These procedures caution the operator to be aware of the loads on the diesel generators to prevent an overloading condition when additional loads are added.

The diesel generators are tested at least monthly to assure operability and operator familiarity with manual start capability.

Based on the above, the Authority feels that existing operating procedures are adequate to properly restore emergency onsite AC power.

Review Item f

Consideration of the availability of emergency lighting, and any actions required to provide such lighting, in equipment areas where operator or maintenance actions may be necessary.

RESPONSE:

Emergency DC powered lighting has been installed throughout the Indian Point Unit 3 plant. The placement of these emergency lighting fixtures are such that operators have emergency lighting in locations where operator action may be necessary to achieve and maintain safe shutdown. The Authority feels that the existing emergency lighting at IP3 is adequate.

Review Item g

Precautions to prevent equipment damage during the return to normal operating conditions following restoration of AC power. For example, the limitations and operating sequence requirements which must be followed to restart the reactor coolant pumps following an extended loss of seal injection water should be considered in the recovery.

RESPONSE:

Existing operating procedures indicate various precautions to prevent equipment damage during return-to-normal operating conditions. The Authority will augment these procedures, as necessary, upon completion of the W-OG generic Loss of AC Power Guideline and related seminar presentation.

In conclusion, it should be noted that the training department holds periodic training sessions, for licensed personnel, on emergency procedures. This training is currently up-to-date. As emergency procedures are revised, the training department updates their training program and advises personnel of these revisions in a timely manner.