

ATTACHMENT E
IP3-88-004

MOV Program Description

New York Power Authority
Indian Point 3 Nuclear Power Plant
Docket No. 50-286
DPR-64

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ATTACHMENT E

This attachment provides the results of the activities taken in response to Action Item (d) of IEB 85-03. The requirements of this action item can be summarized as follows:

"Prepare or revise procedures to ensure that correct switch settings are determined and maintained throughout the life of the plant. Ensure that applicable industry recommendations are considered in the preparation of these procedures.

"This item is intended to be completely consistent with Action Item 3.2, 'Post-Maintenance testing (All Other Safety-Related Components),' of Generic Letter 83-28, 'Required Actions Based on Generic Implications of Salem ATWS Events.' These procedures should include provisions to monitor valve performance to ensure the switch settings are correct. This is particularly important if the torque or torque bypass switch setting has been significantly raised above that required."

As indicated in the Authority's initial 180-day response to the subject bulletin as referenced in the cover letter to this attachment, the Authority had intended to complete this action item prior to the start of the recent 10-year ISI and Cycle 5/6 Refueling Outage. However, because of the need to re-focus attentions in preparation for such an outage, only procedures related to administrative control of MOVATS testing and the details associated with such testing were able to be developed in a timely fashion.

However, existing procedures have been reviewed and the revisions related to ensuring correct switch settings for the ten IEB 85-03 MOVs have been prepared. These revisions are currently in the review and approval process and also address a number of other MOV-related issues that have been identified by various industry organizations. The subject revisions to existing procedures will be in place some time in early 1988.

In addition to these activities, new procedures need to be developed as part of the Authority's long-term plan to upgrade the IP3 MOV Preventive Maintenance Program. Specifically, the Authority intends to incorporate use of the MOVATS motor load unit to periodically monitor MOV performance for each of the ten IEB 85-03 MOV's. The motor load unit allows testing of a MOV from the motor control center to ensure that correct switch settings are being maintained and that the MOV is capable of overcoming maximum expected differential pressures. (Refer to Union Electric's safety-related MOV program

for the Callaway plant* for details associated with the theory and operation of the MCC motor load unit.) The Authority plans to develop and have in place procedures related to MCC motor load testing prior to start of the Cycle 6/7 Refueling Outage currently schedule for early 1989.

The following testing frequencies are proposed for ensuring and maintaining correct switch settings for the life of the plant for each of the ten IEB 85-03 MOV's:

Motor Load and Control Switch Signature Traces

Testing will be conducted and motor load and control switch signatures recorded, trended and analyzed at least once each refueling cycle.

Complete MOVATS Base-Line Testing

Testing will be performed initially to set up each valve (refer to Attachment D for results of initial base-line tests performed in response to Action item (c) of IEB 85-03) and whenever major maintenance is performed on the MOV.

The testing frequencies proposed are what the Authority believes to be currently justified. As additional test data are obtained and evaluated and as new technologies are developed, the proposed tests and frequencies may be changes.

Since the types of testing described above are not intended to replace the ASME Section XI testing required by 10CFR50.55a(g), the Authority views the proposed MOVATS testing as a supplemental requirement for the ten IEB 85-03 MOV's. However, it is the Authority's position that the ASME Section XI testing required by 10CFR50.55a(g) is sufficient to demonstrate the operability of the subject MOV's following minor maintenance (e.g., valve packing adjustments, etc.) As such, post-maintenance MOVATS testing of the ten IEB 85-03 MOV's shall be limited to cases where major maintenance (e.g., MOV overhaul, spring pack change-out, torque switch change-out, etc.) has been performed.

From the above, it should be obvious that the IP3 MOV Preventive Maintenance Program is in a state of transition. This transition stems from the efforts being taken to incorporate a new technology into our MOV maintenance practices. Such efforts represent a significant impact and result in substantial commitments of both personnel and economic resources. The

*Callaway Plant: Lead plant for IEB 85-03

Authority is willingly undergoing this transition because it recognizes the importance of assuring and maintaining equipment operability. In this regard, the Authority views the ten IEB 85-03 MOV's as a pilot program that could be expanded to include other MOV's.

Two other on-going activities have the potential to impact the IP-3 IEB 85-03 MOV program. The first is that the Authority is currently investigating the possibility of modifying the existing control circuitry for each of the ten IEB 85-03 MOV's to provide for a four-rotor rather than the current two-rotor limit switch design. Such a modification would preclude the open torque switch bypass limit switch from impacting control room light indication as well as the permissive signals associated with the 856 MOV's. The second activity involves the work currently being performed to eliminate the boron injection tank from the high head SI pathway. (A number of Westinghouse PWR's have already performed this modification). This modification could impact the current configuration of existing MOV's and reduce the number of MOV's currently included within the scope of IEB 85-03.