February 23, 1994

Docket No. 50-454
Docket No. 50-455

Commonwealth Edison Company
ATTN: K. Graesser, Site Vice President
Byron Station
4450 N. German Church Road
Byron, IL 61010

Dear Mr. Graesser:

SUBJECT: DOCUMENTATION REQUEST TO SUPPORT THE BYRON STATION MOTOR OPERATED VALVE INSPECTION

I would like to inform you that we intend to perform a Generic Letter (GL) 89-10 motor operated valve (MOV) inspection at the Byron Station on March 28 through April 1 and April 11-15, 1994. This will be a Phase 2 inspection in accordance with Temporary Instruction 2515/109. The inspection's main focus will be your GL 89-10 program implementation. Specifically, we will review your evaluation of differential pressure test results and the use of available data to justify assumptions and update your program. We will also review issues raised during the Phase 1 inspection (NRC Inspection Reports No. 50-454/91003(DRS);50-455/91003(DRS)).

The attachment to this letter lists information normally utilized during the inspection. To facilitate the inspection, I request your assistance in having this information available at the beginning of the inspection.

We have found that a short MOV program implementation status summary is an effective way to supplement the documentation and enhance information exchange. If you desire to make such a presentation, we suggest it be held immediately following the entrance meeting. However, we request that the presentation be no longer than one hour in duration.

If you have any questions regarding the attachment, or the inspection itself, please contact me (708) 829-9731 or John Jacobson of my staff (708) 829-9736.

Sincerely,

Original Signed By

08-102

G. C. Wright, Chief
Engineering Branch

Attachment: As stated

See Attached Distribution:

RIII	RIII	RIII	RIII
Huber	Jacobson	Jorgensen	Wright
2/ /94	2/ /94	2/23/94	2/22/94

IE 11

Distribution:

cc w/attachment:
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Counsel
State Liaison Officer, Wisconsin
State Liaison Officer
Licensing Project Manager, NRR
Chairman, Illinois Commerce
Commission

bcc w/enclosure: PUBLIC-IE11

ATTACHMENT

GENERIC LETTER 89-10 INSPECTION

DOCUMENTATION REQUEST

The following is representative of material used during a Phase 2 MOV inspection. It will significantly aid in inspection efficiency if the information is available at the beginning of the inspection.

1. Your current GL 89-10 program description, including position papers or other program support documents.

2. The valve number and noun-name for each valve in your program.

3. "Target Margin Calculations" for each MOV in your program, or other documents that contain the equivalent information, including:

   a. Motor: ac or dc, nominal voltage rating, nominal torque, speed.

   b. Actuator: manufacturer, type, size overall gear ratio, application factor, assumed efficiencies.

   c. Valve: Manufacturer, type, pressure rating, disc area used in calculations, stem diameter, assumed valve factor, assumed stem friction coefficient, pitch and lead.

   d. Design Basis Conditions: differential pressure (dp), system pressure, worst case motor voltage, fluid temperature and flow conditions, and ambient accident temperature conditions.

4. Information on valves that have been tested and the type of test performed (static or dynamic design basis test). The following information is of specific interest: valve factor observed for each valve which was dp tested, test dp, stem friction coefficients observed during static and design basis testing, percentage of load sensitive behavior observed during the dp test, and thrust observed at torque switch trip under static and dp conditions.

5. Procedures for:

   a. Calculating dp requirements

   b. Determining torque switch settings

   c. Preventive and corrective maintenance on MOVs, including post maintenance testing requirements

   d. Performing dp and static testing

   e. Evaluating MOV test results

f. Performing degraded voltage calculations

g. Trending MOV parameters and failures

6. The schedule for testing and maintenance of MOVs during the period of the inspection.

7. MOVs in safety-related systems which were not included in the GL 89-10 program and the reason for not including them.

8. Specific justification for not performing design basis testing on MOVs included in the program.

9. An MOV staff organizational chart and appropriate phone numbers.

10. P&IDs for systems which include GL 89-10 MOVs.

11. A schedule of expected testing and completion projections for GL 89-10 commitments.

12. Results of degraded voltage studies.

13. Results of MOV sizing and switch setting calculations, if different than 3, above.

14. Results of dp calculations.

15. Evaluations and corrective action, if appropriate, to address various information notices pertaining to pressure locking and thermal binding of MOVs.

16. Diagnostic equipment manufacturer, devices used, assumed accuracies, and the associated vendor manuals.

17. Information on MOV failures since January 1, 1991.

18. The latest MOV program self-assessment.

19. Information on completed and proposed modifications to enhance MOV capability.

20. The following areas will also be addressed during the inspection:

    a. Justification for generic assumptions for valve factors, stem friction coefficients under degraded and non-degraded conditions, and load sensitive behavior.

    b. Test information feedback into your GL 89-10 program. Specifically, steps taken to update programmatic values for valve factors, stem friction coefficients, and load sensitive behavior based on the results of your testing program.

    c. Assessment of ambient temperature effects on MOV motors, including actions taken (and planned) in response to the recent Limitorque Part 21 Notice, "Torque at Elevated Temperatures," dated May 13, 1993.

    d. Actions planned to justify design basis capability for MOVs which will not be subjected to dp testing.

    e. Justification demonstrating that static testing (performed to comply with the periodic verification recommendations) is sufficient to demonstrate that MOVs can perform their design basis functions, if applicable.