UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

OCT 9 1985

Docket No. 50-461

APPLICANT: Illinois Power Company

FACILITY: Clinton Power Company

SUBJECT: SUMMARY OF MEETING WITH ILLINOIS POWER COMPANY RELATED TO THE PVORT RECOVERY PROGRAM

A meeting with Illinois Power Company (IP) was held with the NRC staff and its consultant BNL on September 26, 1985, in Bethesda, Maryland. The purpose of the meeting was to discuss IP's recovery program following the unsatisfactory PVORT audit at Clinton the week of August 26, 1985. A list of meeting attendee's is contained in Enclosure 1.

S. Perry of IP and R. Heider of Sargent and Lundy (S&L) described IP's PVORT recovery program that has been developed to meet the regulatory requirements. Enclosure 2 contains copies of the vu-graphs used during their presentation.

Following the presentation the NRC staff caucused and presented IP with the following requests and conclusions:

1) Provide two procurement specifications complete with all revisions by October 2, 1985. One of the specifications should be for RCIC suction isolation valve E51-F063.

2) To provide the staff assurance of the acceptability of the recovery program IP should return to Bethesda during the latter part of October 1985 prepared to describe the overall program plan by going through, in detail, the qualification of the RCIC suction isolation valve E51-F063.

3) Provide procedure PI-CP-079 developed by S&L for IP to assure compliance of the equipment packages with the regulatory requirements by October 2, 1985.

4) Assuming that the staff finds the above items acceptable the staff will be prepared to perform a reaudit of the PVORT program for Clinton during the month of November on dates proposed by IP provided the staff has no conflict that would take priority. This also assumes that IP will provide an equipment master list to the staff on a schedule that will support the proposed reaudit dates.

Copies of items 1 and 3 were received by the staff and BNL on September 30, 1985.

Byron Siegel

Byron Siegel, Project Manager
Licensing Branch No. 2
Division of Licensing

Enclosures:
As stated

cc: See next page

Copies of items 1 and 3 were received by the staff and BNL on September 30, 1985.

Original Signed by

Byron Siegel, Project Manager
Licensing Branch No. 2
Division of Licensing

Enclosures:
As stated

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Enclosure 1

September 25, 1985 Meeting on PVORT ReAudit Recovery Program

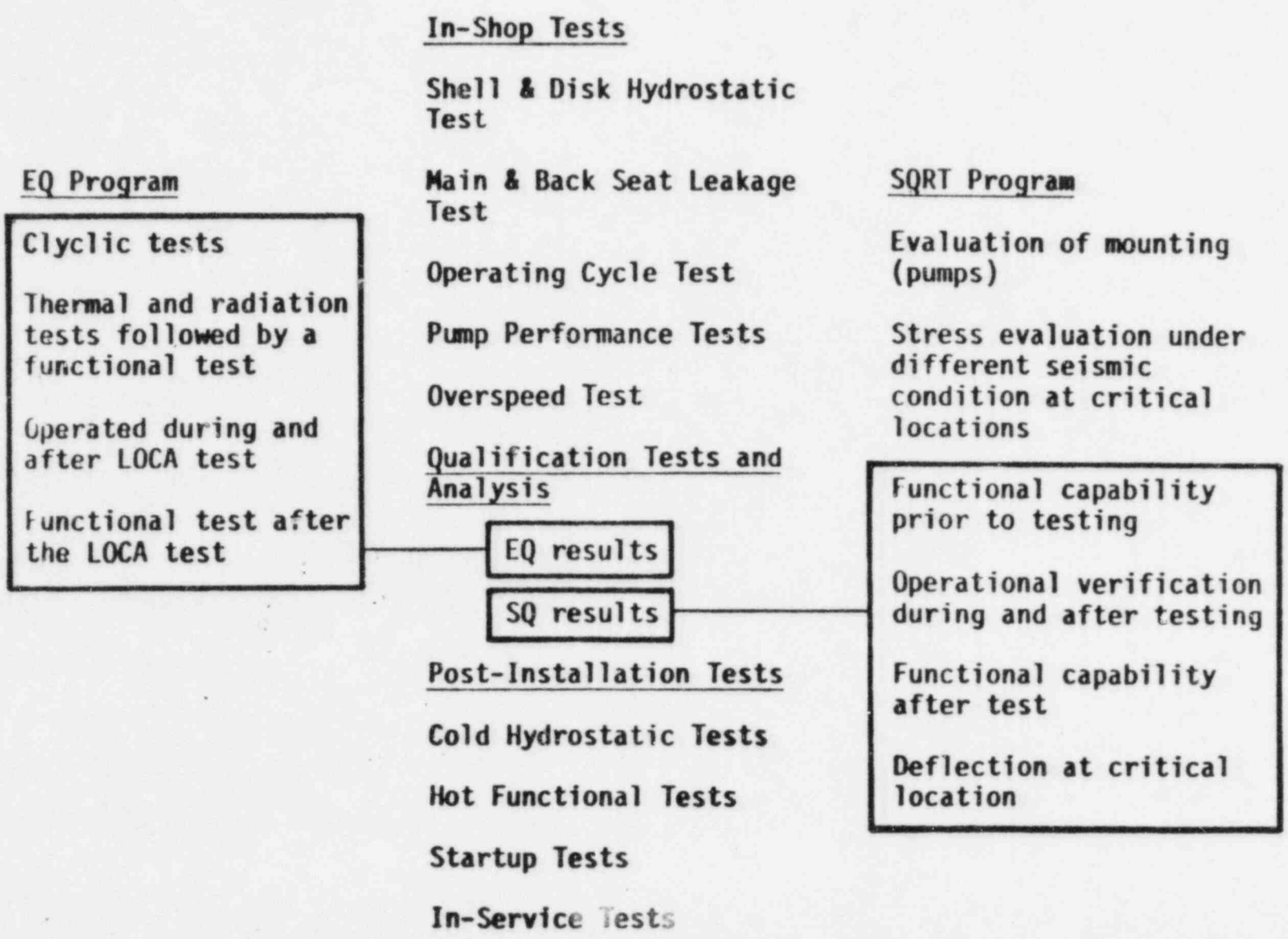
Name	Affiliation
Byron Siegel	PM/DL
Jim Lombardo	EQB
Goutam Bagchi	NRR/DE/EQB
Bruce Miller	BNL
Arnold Lee	NRR/DE/EQB
Bruce Weinhold	S&L
R. C. Heider	S&L
A. E. Meligi	S&L
C. T. Gentile	IP
Parltio Rayfircar	IP
J. S. Perry	IP
Walt Emerson	SWEC
Paul Telthorst	IP
Doyle Wilson	IP

NRC PVORT AUDIT CONCERNS

1. INADEQUACY OF PVORT PACKAGES
   - The Accuracy Active Pump & Valve List
   - Procedure for Revision and Approvals of Packages
   - Component Qualification Status
   - Component Installation Status
   - Qualification Documentation Review

2. TEST VS ANALYSIS

PVORT PROGRAM



CLINTON PUMP & VALVE OPERABILITY ANALYSIS & TEST APPROACH

A. VALVES

- °OPERATOR
  - °OPERABILITY DEMONSTRATED BY TEST
- °VALVE ASSEMBLY (OPERATOR & VALVE BODY)
  - °OPERABILITY DEMONSTRATED BY ANALYSIS
  - °ANALYSIS METHOD CONFIRMED BY TEST

B. PUMPS

- °PUMP
  - °OPERABILITY DEMONSTRATED BY ANALYSIS
- °DRIVER
  - °MOTOR OPERABILITY DEMONSTRATED BY ANALYSIS
  - °TURBINE OPERABILITY DEMONSTRATED BY TEST

TEST AND ANALYSIS

STANDARD REVIEW PLAN GUIDELINES

- ANALYSIS ALONE ACCEPTABLE IF STRUCTURAL INTEGRITY ALONE ASSURES OPERABILITY

- COMBINATION OF TEST AND ANALYSIS IS ACCEPTABLE WHEN COMPLETE TESTING IS IMPRACTICAL

VALVE ASSEMBLY OPERABILITY VERIFICATION BY TESTING

- STATIC PULL TEST OF REPRESENTATIVE VALVE ASSEMBLIES TO VERIFY STROKING UNDER 5G TO 12G SIMULATED SEISMIC LOAD (CLINTON WORST CASE 4.5G)

- SEISMIC TESTING REPRESENTATIVE VALVE ASSEMBLIES

- IN-SITU TESTING OF REPRESENTATIVE VALVE ASSEMBLIES

REPRESENTATIVE VALVE ASSEMBLY IN-SITU TESTING

- 2" Motor-Operated Gate Valve
- 4" Motor-Operated Gate Valve
- 6" Motor-Operated Gate Valve
- 12" Motor-Operated Globe Valve
- 14" Motor-Operated Gate Valve (HPCS)
- 16" Motor-Operated Butterfly Valve
- MS Isolation Valve

PUMP OPERABILITY VERIFICATION BY ANALYSIS

- PUMP SHAFT (IMPELLER) DEFLECTION DEMONSTRATES NO INTERFERENCES WITH CASING
- PUMP MOTOR SHAFT (ROTOR) DEFLECTION DEMONSTRATES NO INTERFERENCE WITH STATOR
- ALIGNMENT OF MOTOR-PUMP SHAFTS AT COUPLING DEMONSTRATED TO SATISFY VENDOR REQUIREMENTS
- BEARINGS CHECKED FOR QUALIFIED LIFE

PUMP OPERABILITY VERIFICATION BY TESTING

Adequacy of analytical models used by S & L verified by IN-SITU impedence testing conducted for other S & L projects

- RBCCW Pump and Motor
- LPCS Pump and Motor
- RCIC Pump
- SLC Pump and Motor

VALVE ASSEMBLY OPERABILITY VERIFICATION BY ANALYSIS

- VALVE STRESSES DEMONSTRATED TO BE IN ELASTIC RANGE

- VALVE STEM (YOKE) DEFLECTION DEMONSTRATED NOT TO CAUSE BINDING

Comparison Between Clinton Active Valves and
Clinton Valve Assemblies Tested

Valve Type	Valve Size (inches)																		
	.50	.75	1	1.5	2	2.5	3	4	6	8	10	12	14	16	18	20	24	30	36
Gate	▲	▲	▲			▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲		
Globe	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲		▲				▲		
Butterfly					▲			▲		▲	▲	▲	▲	▲		▲	▲	▲	▲
Plug/ball				▲	▲		▲												
Safety relief	▲	▲	▲	▲	▲			▲		▲									
Vacuum relief					▲						▲								
Check	▲	▲	▲			▲	▲	▲	▲		▲	▲	▲	▲	▲	▲			

▲ Clinton active valve size

Range of Clinton valve assemblies tested
Range of valve assemblies tested
(Sargent & Lundy Nuclear Projects)

Comparison Between Clinton Active Valves and Clinton Valve Assemblies Tested

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Globe	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲		▲				▲		
Butterfly					▲		▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Plug/ball				▲	▲		▲												
Safety relief	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲					
Vacuum relief					▲						▲								
Check	▲	▲	▲			▲	▲	▲	▲		▲	▲	▲	▲	▲	▲			

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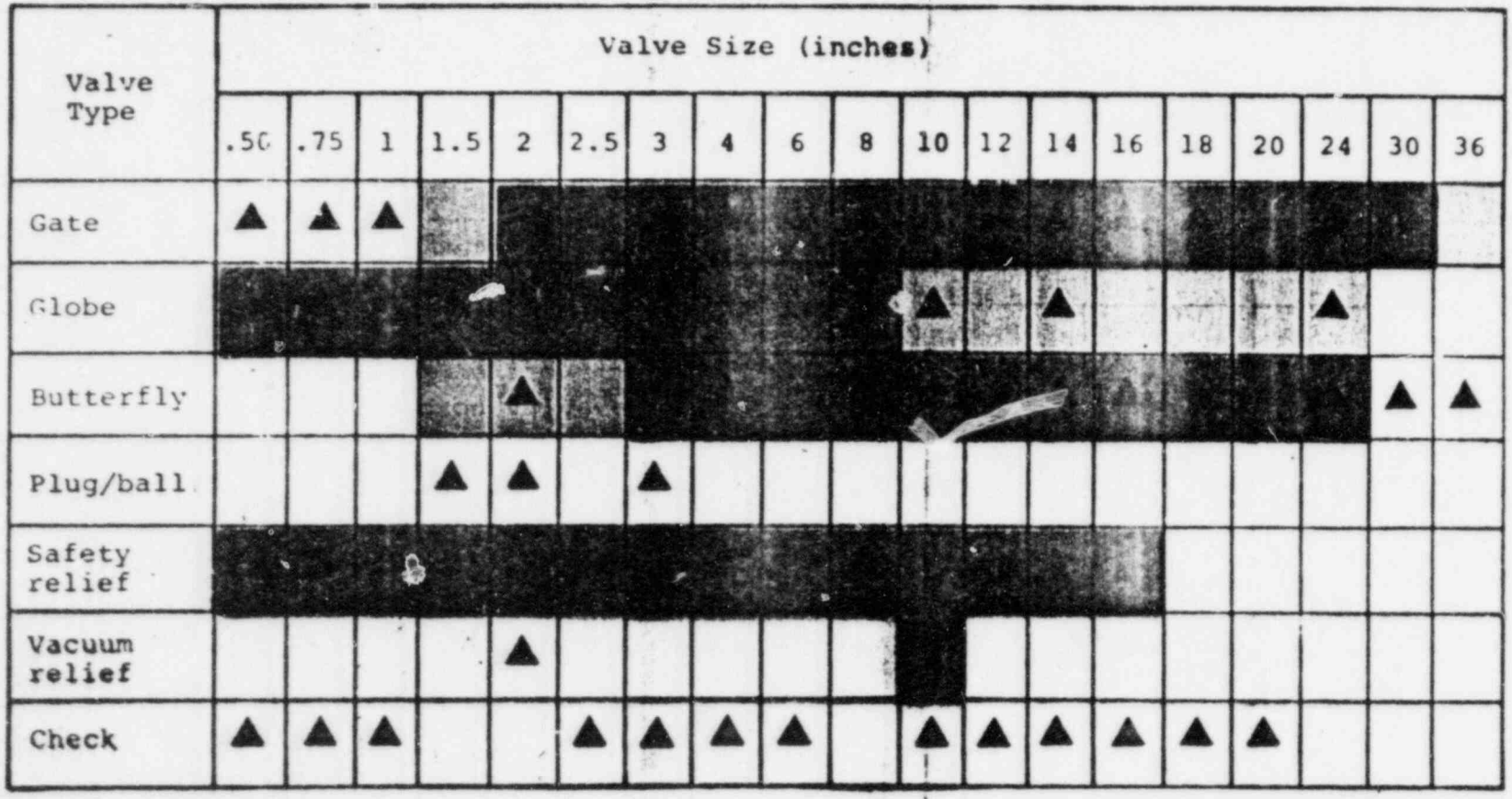
Comparison Between Clinton Active Valves and Clinton Valve Assemblies Tested



TESTING PERFORMED ON REPRESENTATIVE VALVE ASSEMBLIES

VALVE DESCRIPTION	PARAMETERS					
SIZE - RATING - BODY TYPE AND ACTUATOR TYPE	SHAKE TABLE QUALIFICATION TEST	STATIC PULL TEST	MAXIMUM TEST INPUT	VALVE PRESSURIZATION	VALVE CYCLED	OPENING CLOSING/ TIME MONITORED
1" - 600# GLOBE WITH AIR OPERATOR		X	9.4G	YES	YES	YES
1½" - 600# GLOBE WITH AIR OPERATOR		X	9.7G	YES	YES	YES
3" - 600# GLOBE WITH AIR OPERATOR		X	10.5G	YES	YES	YES
4" - 600# GLOBE WITH AIR OPERATOR		X	9.2G	YES	YES	YES
1" - 1500# GLOBE WITH AIR OPERATOR		X	9.4G	YES	YES	YES
½" - 2500# GLOBE WITH MOTOR OPERATOR		X	6.0G	YES	YES	YES
" - 600# GLOBE WITH SOLENOID OPERATOR	X		4.5G	YES	YES	YES
" - 2500# GLOBE WITH SOLENOID OPERATOR	X		4.5G	YES	YES	YES

VALVE DESCRIPTION	PARAMETERS					
SIZE - RATING - BODY TYPE AND ACTUATOR TYPE	SHAKE TABLE QUALIFICATION TEST	STATIC PULL TEST	MAXIMUM TEST INPUT	VALVE PRESSURIZATION	VALVE CYCLED	OPENING CLOSING/ TIME MONITORED
3/8" - 150# GLOBE WITH SOLENOID OPERATOR	X		4.5G	YES	YES	YES
L2" - 150# WAFER STOP VALVE WITH AIR OPERATOR	X		11.0G	YES	YES	YES
12" - 150# BUTTERFLY WITH AIR OPERATOR	X		3.0G	YES	YES	NO
6" - 150# BUTTERFLY WITH MANUAL GEAR	X		3.0G	YES	YES	N/A
4" - 300# GATE WITH MOTOR OPERATOR	X		6.75G	YES	YES	YES
16" - 1500# GATE WITH MOTOR OPERATOR	X		6.75G	YES	YES	YES

VALVE DESCRIPTION	PARAMETERS					
SIZE - RATING - BODY TYPE AND ACTUATOR TYPE	SHAKE TABLE QUALIFICATION TEST	STATIC PULL TEST	MAXIMUM TEST INPUT	VALVE PRESSURIZATION	VALVE CYCLED	OPENING CLOSING/ TIME MONITORED
1" - 1500# PRESSURE RELIEF VALVE	X		6.0G	YES	YES	YES
2" - 1500# PRESSURE RELIEF VALVE	X		6.0G	YES	YES	YES
4" - 1500# PRESSURF RELIEF VALVE	X		6.0G	YES	YES	YES
8" x 10" SAFETY RELIEF VALVE WITH AIR OPERATOR	X		9.0G	YES	YES	YES
*1" EXPLOSIVE VALVE	X		6.75G	YES	N/A	N/A