ILLINOIS POWER Illinois Power Company Clinton Power Station P. O. Box 678 Clinton, IL 61727 Tol 217 939-8861

U-601949 L30-92(04-03)LP 8E.100c

April 3, 1992 10CFR50.55a

Docket No. 50-461

Document Control Desk Nucleur Regulatory Commission Washington, D.C. 20555

Subject:

Clinton Power Station

Proposed Resolution of Issues Related to NRC Review of Inservice Testing Program

Dear Sir:

By NRC letter dated September 30, 1991, Illinois Power (IP) received the results of the NRC's review of the Clinton Power Station (CPS) Inservice Testing (IST) program for the initial 120-month inspection interval. The NRC's September 30, 1991 Safety Evaluation Report (SER) concluded that the CPS IST program is acceptable for implementation (except for those relief requests which were denied) provided the items identified in the SER are addressed within 8 months of receipt. Resolution of the items identified in the SER was the subject of a meeting between IP and NRC staff personnel held at the NRC's White Flint offices on January 23 and 24, 1992.* This letter is being provided as a follow-up to that meeting and to provide a summary of IP's proposed course of action to resolve the items identified in the SER.

Detailed information and discussion regarding IP's proposed disposition of each of the relief requests associated with the items identified in the SER is provided in the attachments to this letter. Attachment 1 to this letter provides a discussion of the proposed resolution for each of the subject relief requests. Attachment 2 to this letter provides a recreation of the flow chart developed during the January meeting for categorizing each of the relief requests, and Attachment 3 provides a more detailed matrix which serves to cross-reference the relief request numbers with the items identified in the SER. Attachment 4 to this letter contains those relief requests which have been revised as a result of the January meeting. In addition, it should be noted that several relief requests (as discussed in Attachment 1) are being withdrawn by this letter.

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A meeting summary, including a list of attendees, was issued by NRC letter dated March 3, 1992.

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As discussed at the January meeting and in accordance with the NRC's September 30, 1991 SER which was received on October 25, 1991, IP will provide a final response to the items identified in the SER by June 25, 1992.

Sincerely yours,

F. A. Spangenberg | III

Manager, Licensing and Safety

DAS/alh TBE2:DAS12

Attachments

cc: NRC Clinton Licensing Project Manager

NRC Resident Office

NRC Region III Regional Administrator Illinois Department of Nuclear Safety

Background

By letter dated September 30, 1991, Illinois Power (IP) received the results of the NRC's review of the Clinton Power Station (CPS) Inservice Testing (IST) program for the initial 120-month inspection interval. As identified in the NRC's letter, each of the relief requests contained in the IST program was a ther granted, granted with provisions, granted on an interim basis, or denied. Those relief requests which were not granted have been further categorized below into seven "cases" in order to facilitate identification of further actions required on the part of IP or the NRC. This at achment provides a discussion of the proposed resolution of each of the relief requests discussed in the NRC's September 30, 1991 safety evaluation report (SER). Additional description and details for each relief request discussed in this attachment are provided in Attachments 2 and 3.

Case 1

The following relief requests were denied by the NRC and are being withdrawn by this letter. These requests are identified in Attachment 2 as Case 1:

- 1002 Deferring testing if back-up subsystem/loop/train is out of service.
- 2017 Testing frequency for reactor water cleanup system valves 1033-F001, F004, F039, F040, F053, and F054.
- 2030 Exercise requirements for standby liquid control system check valve 1C41-F006 and closure verification for valves 1E21-F050A/B and 1E51-F040.
- 2031 Alternate method for determining test sample size for Main Steam Safety/Relief Valves.

Case 2

The following relief requests were denied by the NRC, but based on discussions at the January meeting, they have been revised for resubmittal and reconsideration. The revised relief requests contain more detail with respect to justification for the requested relief. IP believes that the additional justification provided will facilitate NRC approval. These revised relief requests are contained in Attachment 4 for NRC review. Please note that IP is requesting priority review of these revised relief requests. These requests are identified in Attachment 2 as Case 2:

- 2014 Full-stroke exercise requirements for testable check valves 1E12-F041 A/B/C, 1E21-F006, and 1E22-F005.
- 3002 Flow rate measurement method and acceptance criteria for diesel generator fuel oil transfer pumps 1D001PA, PB, and PC.

3006 - Allowable ranges for flow rates and differential pressures associated with pumps in the IST program. (It should be noted that the scope of this request has been significantly reduced. This request was previously submitted as a generic request for all pumps in the IST program except those covered in relief request 3002. This relief request is now limited to the four water-leg pumps.)

Case 3

Approval of the following relief requests was granted with provisions or on an interim basis. These requests require no further NRC review as the provisions are currently being implemented, will be implemented via a revision to the CPS IST program (which will be submitted by June 25, 1992) or the requests are being withdrawn. Prails for each of these requests are identified below. These requests are identified in Attachment 2 as Case 3:

- 2007 Stroke time testing for valve 1812-F095. (This relief request will be resolved prior to June 25, 1992. See Attachment 3 for additional details.)
- 2020 This relief request was previously withd awn as acknowledged in the NRC's September 30, 1991 SER.
- 2021 Stroke time testing following packing adjustment. (This request is being withdrawn via this submittal.)
- 2027 Drywell isolation valves. (This request will be resolved prior to June 25, 1992. See Attachment 3 for additional details.)
- 2029 Verification of air accumulator check valve closure by pressure drop tests. (The provisions have already been implemented. No program revision is required.)

Case 4

Approval of the following relief requests has granted with provisions or on an interim basis. These requests have been revised to indicate that they are associated with augmented testing requirements which are beyond the scope of 10CFR50.55a as these components are not ASME Class 1, 2, or 3. No further NRC review of these requests is necessary. These revised relief requests have been provided in Attachment 4 for informational purposes and are identified in Attachment 2 as Case 4:

- 2024 Control rod drive hydraulic control unit valves 1011-126, 127, 139, and 114.
- 2026 Diesel generator air start system solenoid valves 1DG008A-K.

Case 5

Approval of relief request 2008 was partially granted with provisions and partially on an interim basis. This request has been revised to agree with the results of discussions with the NRC staff and been divided into two relief requests for clarity. These requests are provided in Attachment 4 for NRC review and are identified in Attachment 2 as Case 5:

2008 - Testing method for water-leg keep-fill stop-check valves 1E22-F006, 1E12-F085A, B, C and 1E21-F034 and check valves 1G33-F051 and F052 A/B. Approval of the portion of this relief request associated with the water-leg keep-fill stop-check valves was granted on an interim basis until June 25, 1992. IP is requesting an extension of the interim relief period until NPC review of revised relief request 2008 is complete. For clarity, the request pertaining to valves 1G33-F051 and F052A/B has been deleted from relief request 2008 and is now addressed separately in new relief request 2033 below. IP is further requesting priority review of revised relief request 2008.

With respect to interim approval of relief request 2008, the NRC's SER stated that inspecting a sample of the water-leg keep-fill stop-check valves, as CPS proposed, was unacceptable. The SER states that IP must inspect all of the subject valves during the interim period. As stated in Section 3.1.8.1 of the Technical Evaluation Report attached to the NRC's SER, check valve disassembly and inspection is a valuable maintenance tool that provides a great deal of information about valve condition and as such, should provide reasonable assurance of valve operational readiness during the interim period. In addition, sample disassembly programs are consistent with NRC Generic Letter 89-04, Attachment 1 Position 2. As a result, IP has determined that the current sample disassembly program will provide adequate assurance of the operational readiness of these valves until NRC review of revised relief request 2008 is complete.

Case 6

Approval of the following relief request was granted with provisions. This request has been revised to comply with the provisions identified in the SER. This revised relief request has been provided in Attachment 4 for informational purposes. No further NRC review of this relief request is necessary. This request is identified in attachment 2 as Case 6:

1001 - Allowable extension for test frequency of valves and pumps in the IST program.

Case 7

Approval of the following relief requests was granted with provisions. As IP plans to implement the provisions identified in the SER, no further NRC review of these relief requests is required. However, an extension to the required implementation date for the provisions is being requested until the next test following August 26, 1992 to allow time to complete the required procedure changes. These requests are identified in Attachment 2 as Case 7:

- 2011 Leak rate testing, excess flow check valve differential pressure testing, analysis of leakage rate, and corrective action for containment isolation valves.
- 2012 Test frequency and stroke time evaluation for automatic depressurization system (ADS) valves 1B21-F041 B/C/D/F, F047 A/C and 751G. This relief request has been revised to address the ovisions identified in the SER and to be in conformance with NRC reric Letter 89-04. This revised relief request has been provided Attachment 4 for informational purposes.

Addition - Relief Request

IP had previously submitted relief request 2032 for NRC review prior to receipt of the NRC's SER on the CPS IST program. However, relief request 2032 was not included in the NRC's review of the CPS IST program as documented in the SER.

Relief request 2032 requested relief from the requirements of IWV-3417 for stroke time testing of power (air) operated valves with stroke times of ten seconds or less. After further discussion with the NRC staff, IP has determined that this request should be revised to comply with NRC Generic Letter 89-04, Attachment 1 Positions 5 and 6. These NRC positions address establishing limiting stroke time for power operated valves and measuring the changes in valve stroke times (for valves with stroke times less than ten seconds) from a reference value rather than from the previous test. This relief request has been revised and is included in Attachment 4 for informational purposes. As this alternate testing criteria is in conformance with NRC Generic Letter 89-64, no further NRC review of relief request 2032 is required.

Summary

Based on the above discussion, IP is requesting further NRC action as follows:

- Grant an exten ion to the required implementation cate until the next test following August 26, 1992 for those relief requests which were granted with provisions and for which additional time is necessary to make required procedure changes to implement the provisions of the NRC's SER. This request applies to Case 7 relief requests 2011 and 2012.
- 2. Grant an extension to the interim relief period for Case 5 relief request 2008 from June 25, 1992 until NRC review of revised relief request 2008 and new relief request 2033 is complete. In addition, IP is requesting that the requirement to disassemble all water-leg keep-fill stop-check valves during this interim period be waived.
- 3. Priority review is being requested for those relief requests which have been revised to address those concerns identified in the NRC's SER. This request applies to revised relief requests 2014, 3002, 3006, and 2008 and new relief request 2033. (Cases 2 and 5).

No further action is being requested of the NRC for relief requests 1002, 2017, 2030, 2031, 2007, 2020, 2021, 2027, 2029, 2024, 2026, 1001, and 2032. (Cases 1, 3, 4, and 6).

As indicated previously, Attachment 4 to this letter contains those relief requests which have been revised. The relief requests contained in Attachment 4 are arranged in order by relief request number, first for those which require NRC review (relief requests 2008, 2014, °033, 3002, and 3006), and second for those which do not require NRC review (relief requests 1001, 2012, 2024, 2026, and 2032).

Finally, it should again be noted that relief requests 1002, 2017, 2020, 2021, 2030, and 2031 have been withdrawn.

ASME Code Edition

During the January 23, 1992 meeting with the NRC, the ASME Code edition on which the CPS IST program is based was questioned. The regulations [10CFR50.55a(g)(4)(i)] require the IST program for the initial 120-month inspection interval to comply with the requirements of the latest edition and addenda of the Code incorporated by reference in paragraph (b) of 10CFR50.55a on the date 12 months prior to the date of issuance of the operating license. NRC approval of the 1983 Edition with addenda through Summer 1983 Addenda was identified in the September 26, 1985 Federal Register (page 38970). However, the identified effective date for this change was October 28, 1985. Therefore per 10CFR50.55a(g)(4)(i), the initial 120-month inspection interval IST programs for those plants whose operating license was issued after October 28, 1986 are required to be based on the 1983 Edition with addenda through the Summer 1983 Acdenda.

Attachment 1 to U-601949 Page 6 of 6

The low-power operating license for CPS (NPF-55) was issued on September 29, 1986. As a result, the above change did not alter the requirements for CPS. The requirements in effect prior to issuance of the September 26, 1985 Federal Register required the initial 120-month inspection interval IST program to be based on the 1980 Edition with addenda through the Winter 1981 Addenda. Therefore, the Code edition on which the initial 120-month inspection interval CPS IST program is based is in conformance with 10CFR50.55a(g).

ATTACHMENT 2

CASE 1	CASE 2	CASE 3	CASE 4	CASE 5	CASE 6	CASE 7
RELIEF	RELIEF DENIED	INTERIM RELIEF GRANTED OR GRANTED WITH PROVISIONS	INTERIM RELIEF GRANTED OR GRANTED WITH PROVISIONS	INTERIM RELIEF GRANTED OR GRANTED WITH PROVISIONS	RELIEF GRANTED WITH PROVISIONS	RELIEF GRANTED WITH PROVISIONS
MEET CODE	RESUBMIT RELIEF REQUEST	MEET PROVISIONS OR MEET CODE	RESUBMIT REQUESTS TO IDENTIFY NON CODE ITEMS	RESUBMIT RELIEF REQUEST	RESUBMIT TO COMPLY WITH PROVISIONS	REVISE PROGRAM TO COMPLY WITH PROVISIONS
NO NRC ACTION REQUESTED	NRC REVIEW REQUESTED	NO NRC ACTION REQUESTED	NO NRC ACTION REQUESTED	NRC REVIEW AND EXTEND INTERIM RELIEF	NO NRC ACTION REQUESTED	NRC EXTEND REQUIRED IMPLEMENTATION DATE
1002, 2017 2030, 2031	2014, 3002 3006*	2007, 2020 2021, 2027 2029	2024, 2026	2008, 2033	1001	2011, 2012

^{*} REPLACE GENERIC RELIEF REQUEST WITH SPECIFIC OR MEET THE CODE

ATTACHMENT 3

1 3		2.1.2.1 tess restrictive flow and DP allowable range requirements for all pumps in the CPS ISI program.	Relief Denied. CPS must follow IWP guidelines.	Each pump in the ISI program (22) has been evaluated, and CPS is revising the ISI Program to meet the Code, or where applicable the relief request has been revised via this submittal on an individual component basis.	CPS- The following pumps meet Section XI acceptance criteria, therefore, CPS does not need any relief from Section XI acceptance criteria. 1C41-C00°A,8: 1E12-C002A,8,C:
				Case 2	1E21-C001; 1E22-L001; 1E51-C001; 1FC02PA,B; 1SX01PA,B,C; 0VC08A,B. CPS is revising the applicable procedures for these pumps to revise the acceptance criteristo comply with Section XI on priority wasis and will be complete before 6-25-92: CPS- This Relief Request has been revised and resubmitted with this letter for water-lepumps 1E12-C003, 1E21-C002, 1E22-C002 and 1E51-C002 to justify the need for relief from Section XI acceptance criteria based on CPS operating experience of these pumps. *** Diesel fuel oil transfer pumps 1D001PA,B,C are addressed in the revised relief request 3002.
2 3	3002	2.3.1.1	Relief Denied.	CPS will provide further	CPS has revised the relief

ANOMALY NUMBER(S)	RELIEF REQUEST	SER REFERENCE AND SUBJECT DESCRIPTION	SER REQUIREMENT	PROPOSED SOLUTION AND FLOW CHART REFERENCE	ACTIONS
2	3002	Diesel fuel oil transfer pumps (DO) allowable range specifications for flow. Also, flow measurement method and accuracy.	The allowable ranges should be based on deviation from reference values as per Code requirements. The proposed method of flow rate measurement is acceptable provided the instrument accuracy meets the requirements of IWP-4110 and IWP-4120.	justification for expanded acceptance criteria. Case 2	request and resubmitted it with this letter for the DO pumps, justifying the need for expanding allowable and alert ranges based upon each pump's reference or baseline flow rate and performance history. The calculated flow rates provide an accuracy which meets the Code requirements.
3	1002	3.1.2.1 Testing of a component when a redundant train is out-of-service.	Relief denied. Specific relief requests should be submitted for affected components.	CPS is withdrawing this Relief Request. Case 1	None- Actions complete via this submittal.
A and 7	2011	3.1.3.1 3.1.7.1 Individual leak rate testing of containment isolation valves using maximum permissible leakage of an individual valve. Leak rate testing of excess flow check valves.	Relief granted with provision. Testing and evaluating those containment isolation valves that cannot practically be individually leak rate tested, provided that these valves are leak rate tested in a group and maximum group leakage rate limits are assigned that are conservative based on the smallest valve in the group. Each excess flow check valve actuates to restrict flow when subjected to the required differential pressure.	Procedures will be reviewed to ensure that valves which can be individually tested are not tested in groups. CPS will verify that the assigned maximum group leakage rate limits are conservative based on CPS experience with each penetration. Current IST Program and procedures verify that each excess flow check valve actuates to restrict flow at the required differential pressure.	WRC - Extension of required implementation date requested. CPS will review and determine the need to change procedures by 6-25-92. Procedures will then be revised by the next test after 8-26-92. Action complete via this submittal for excess flow check valves.

ANOMALY NUMBER(S)	RELIEF REQUEST	SER REFERENCE AND SUBJECT DESCRIPTION	SER REQUIREMENT	PROPOSED SOLUTION AND FLOW CHART REFERENCE	ACTIONS
4 and 7	2011			Case 7	
5	2021	3.1.4.1 Deferment of PMT for minor packing adjustments.	Relief granted with provision. Due to the sensitive nature of this maintenance work and the possibility of common mode failure, relief from the Code requirements is contingent upon meeting several conditions.	CPS is withdrawing this Relief Request. Case 3	CPS - Revise the applicable CPS procedure by 6-25-92.
6	2027	3.1.6.1 Individual leak rate testing of drywell isolation valves.	Interim relief granted. Proposed alternate testing does not provide information that assures that these valves are capable of performing a Category A leak tight closure function.	CPS will reevaluate these valves to determine whether these valves should be Category A or B. If this evaluation datermines that these valves could be Category B, then CPS will ensure that the drywell bypass leakage test procedure has criteria for action to identify problem valves. Case 3	CPS- Based upon its evaluation, CPS will revise the IST program and procedure by 6-25-92.
8	2008	3.1.8.1, 3.10.2.1 Verification of water-leg keep-fill check valve and reactor water cleanup check valve closure.	Interim relief granted. CPS must develop and implement procedures to test check valve closure by manually opening the check valves in series with the check valves listed in this relief request. In addition, exercise testing continued on next tage	Per NRC discussion on 1-23-92, CPS considers the series check valves to be a single entity which is to be tested as a unit. Case 5	CPS has revised the relief request and resubmitted it with this letter to only address the water-leg keap-fill check valves. For clarity, CPS has generated Relief Request 2033 to separately address the reactivater cleanup check valves.

INOMALY NUMBER(S)	RELIEF REQUEST	SER REFERENCE AND SUBJECT DESCRIPTION	SER REQUIREMENT	ROPOSED SOLUTION AND FLOW CHART REFERENCE	ACTIONS
8	2098		with flow is expected to be performed after valve disassembly and inspection is complete but before returning the valve to service.		This request is also being submitted via this letter. NRC - Extension of interim relief period until MRC approval of revised relief request 2008 and new relief request 2033 is requested. CPS - Revise the IST Program and procedures to reflect the proposed testing method following NRC approval.
•	2012	5.2.1.1 Testing of ADS valves to detect degradation.	Relief granted with provision. CPS should develop some means of testing these valves that will allow the detection of valve degradation so corrective actions can be taken when a valve's continued operability is in question.	These valves will be treated as rapid-acting in accordance with Generic Letter 89-04. Relief Request has been revised and resubmitted with this letter. Case 7	NRC- Extension of required implementation date until 8-26-92 is requested. CPS - IST Program and procedures will be revised to reflect the changes by 8-26-92. CPS has revised the relief request and resubmitted it with this letter.
10	2031	3.2,2.1 MSRV replacement and additional testing.	Relief denied. The proposal to not require additional valve testing based on failure rates is not supported by plant and industry failure rates for continued on next page	CPS is withdrawing this relief request. Case 1	None- Actions complete via this submittal.

NOMALY NUMBER(S)	RELIEF REQUEST	SER REFERENCE AND SUBJECT DESCRIPTION	SER REQUIREMENT	PROPOSED SOLUTION AND FLOW CHART REFERENCE	ACTIONS
10	2031		these valves.		
11	2014	3.4.1.1, 3.5.1.1, 3.6.1.1 Full stroke testing of testable check valves.	Relief deried. CPS ISI program must include full stroke exercise of applicable testable check valves on a cold shutdown schedule.	CPS resubmit the relief request to provide further justification. Case 2	CPS has revised the relief request and resubmitted it with this letter, providing more specific technical justification for not performing full stroke exercise of these testable check valves during cold shutdowns.
12	2029	3.3.1.2 Verification of air accumulator check valve closure.	Relief granted with provision. CPS IST program to identify acceptance criteria for these pressure drop tests.	No further action is required. The CPS IST Program and procedures provide acceptance criteria for pressure drop tests. Case 3	None- Action Complete,
13 and 16,17	2030	3.4.1.3, 3.7.1.2, 3.8.1.2 Verification of cherk valve closure (1E51-F040, 1E12-F050A, 1E12-F050B). Exercise requirements for 1C41-F006.	Relief denied. CPS must revise the IST Program and procedures to perform testing to verify closure of the affected check valves quarterly during power operation or during cold shutdowns. Interim relief granted for 1041-F006 exercise requirement.	CPS is withdrawing this relief request. Case 1	The CPS IST Program has been revised to incorporate a mechanical closure exercise for these valves on a quarterly or cold shutdown frequency.

ANOMALY NUMBER(S)	RELIEF REQUEST	SER REFERENCE AND SUBJECT DESCRIPTION	SER REQUIREMENT	PROPOSED SOLUTION AND FLOW CHART REFERENCE	ACTIONS
13 and 16,17	2030			Mark Control of the C	
14	2007	3.4.2.1 Stroke time testing of 1E12-F095.	Interim relief granted. CPS must develop a means to monitor valve condition and detect degradation, including developing a method to measure stroke time and verify that this time remains under a reasonable maximum stroke time limit.	CPS is evaluating this valve to determine if it has an active safety function in shutting down the reactor to a cold shutdown condition or in mitigating the consequences of an accident. Case 3	Based upon its evaluation, CP- ill revise the IST Program implementing procedures and USAR by 6-25-92.
15	2028	3.7.1.1 Full stroke exercising of testable check valve 1E51-F066 during cold shutdown.	Interim relief granted. CPS should full-stroke exercise this valve as required by the Code.	CPS has previously withdrawn this request, as noted in USNRC Safety Evaluation, Section 2.0 Evaluation, page 2, paragraph 5. Case 3	None- Action Complete.
18	2017	3.10.1.1 Testing of RT system containment isolation valves during cold shutdown.	Relief Denied. CPS must revise affected procedures to exercise valves during cold shutdown.	CPS is withdrawing this relief request. Case 1	The C . 1ST program and implementing procedures have been revised to comply with the Code requirements.
19	2026	3.12.1.1 Stroke time testing of DG air-start system solenoid valves.	Interim relief granted. CPS to perform stroke time trending of diesel generator air-start solenoid valves.	CPS resubmit the relief request providing further justification. Case 4	CPS has revised the relief request and resubmitted it with this letter to identify that these components are non-Code and are not within the scope of Section XI. CPS will continue its current ISI testing as augmented testing.

ANOMALY NUMBER(S)	REQUEST	SER REFERENCE AND SUBJECT DESCRIPTION	SER REQUIREMENT	PROPOSED SOLUTION AND FLOW CHART REFERENCE	ACTIONS
19	2026				
20	2024	3.9.3.1 Testing of Control Rod Drive (HCU) 1011-114 valves. This relief request also includes valves 1011-126, 1011-127, and 1011-139.	Relief granted with provision. A more specific technical justification should be provided for valve 1011-114.	CPS resubmit the relief request providing further justification. Case 4	CPS has revised the relief request and resubmitted it with this letter, to provide specific technical justification for valve 1C11-114 and to identify that all four (4) valves listed in this relief request are non-Code and are not within the scope of Section XI. CPS will co-tinue to test 10% of these valves every 120 days as required by the CPS Technical Specifications.
21	1001	3.1.5.1 IST frequency extension.	Relief granted with provisions. Relief not applicable to safety and relief valves and valves not tested at Code specified intervals.	CPS to resubmit relief request specifying testing frequency. Case 6	CPS has revised the relief request and resubmitted it with this letter. This revised request identifies that this relief request is only applicable to those tests required on a quarterly (3 month) or shorter testing frequency. We changes to implementing procedures are required.

ATTACHMENT 4

Revised Ralief Requests

Revised Relief Requests
Wh'ch Require NRC Review

ASME Section XI Relief Request

RELIEF REQUEST 2008 (Revision 3)

COMPONENT INFORMATION

Valve 1E22-F006 is located between High Pressure Core Spray (HP) water-leg pump and the main HP injection line. It is a 2tion III Class 2, Section XI

inch stop-check valve, ASME Section III Class 2, Section XI Category C. It is circled on the attached drawing "A".

Valves 1E12-F085A,B,C and 1E21-F034 are located between the water-leg pumps and their respective injection lines (Residual Heat Removal (RHR) and Low Pressure Core Spray (LP)). They are ASME Section III Class 2, Section XI Category C valves. They are 2-inch stop-check valves of identical design. As their piping configuration is similar, only 1E21-F034 is circled on the attached drawing "B".

CODE REQUIREMENTS

The ASME Code, Section XI, Subarticle IWV-3520 requires that these valves be full-stroke exercised individually every

three (3) months.

RELIEF REQUEST/JUSTIFICATION

Illinois Power Company requests relief from the Code requirements for the iollowing reasons:

The above groups of valves, although located in separate systems, have similar configurations; they are check valves located in series with other check valves and no test connections provided between them to permit individual valve testing.

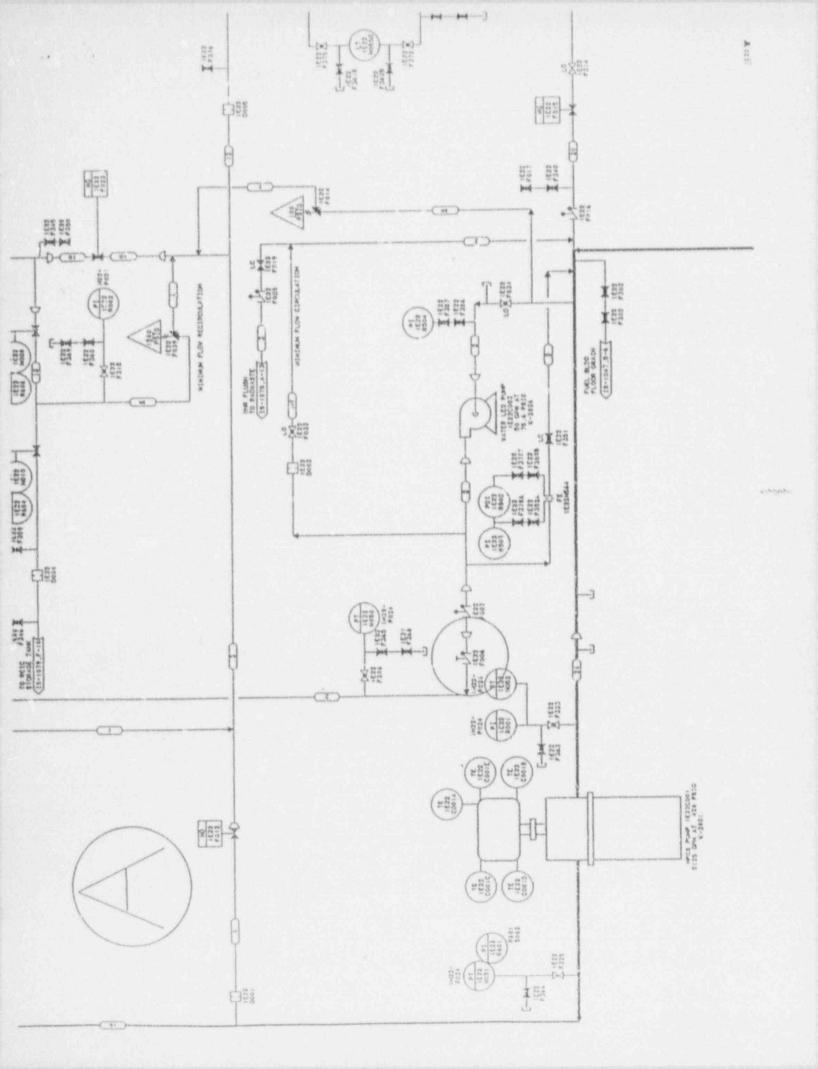
Each of these valves has a separate check valve in series. The two check valves in series, although not required by design or safety analysis, provide an added assurance that the high pressure Emergency Core Cooling System (ECCS) line will not damage the lower pressure water-leg piping. Illinois Power Company considers these two check valves in series as a single entity and will test them as such.

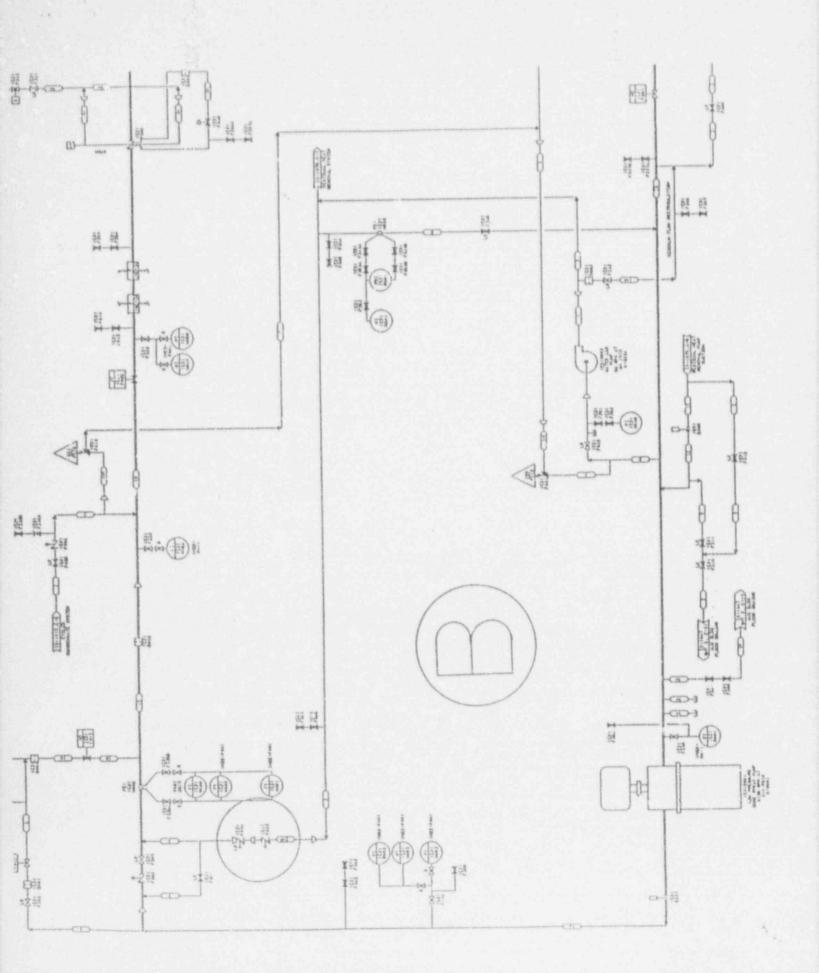
ALTERNATE TESTING PROPOSED

Illinois Power Company considers these two check valves in series a single entity and will perform the closure test every three (3)

months as a single unit. Acceptance criteria will be established and in the event of not meeting this criteria, appropriate action will be initiated for the entity and the deficiency will be corrected.

The open exercise of these valves will also be performed every three (3) months.





ASME Section XI Relief Request

RELIEF REQUEST 2014 (Revision 2)

COMPONENT INFORMATION

These testable check valves (1E12-F041 A/B/C, 1E21-F006, and 1E22-F005) provide isolation from the reactor coolant system

and the emergency core cooling systems (Residual Heat Removal, Low Pressure Core Spray, High Pressure Core Spray). These valves are ASME Section III Code Class 1, Section XI Category A/C valves. Valves 1E12-F041 A,B, and C are 12" diameter and valves 1E21-F006 and 1E22-F 35 are 10" diameter. All of these valves are non-slam check valves—One of these valves (1E12-F041A), which is typical of the group, is circled on the attached drawing.

CODE REQUIREMENTS

The ASME Code, Section XI, Subsection IWV-3520 requires that these valves be exercised every three (3) months unless

such operation is not practical during plant operation. In this situation, the valves may be part-stroke exercised during plant operation and full-stroke exercised during cold shutdown.

RELIEF REQUEST/JUSTIFICATION

Exercising these valves on a three month frequency using the emergency core cooling system pumps to it ect water into the

reactor is not in the interest of plant safety, because this cooler water would create an undesirable power transient. In addition, neither the Low Pressure Core Spray nor Residual Heat Removal pumps are capable of opening their injection valves against full reactor pressure. Mechanically exercising these valves during reactor operation is not practical because they are located inside the drywell and access is restricted due to radiation conditions.

Mechanically exercising these valves on a cold shutdown frequency as allowed by the ASME Code is not practical because the air operator is not designed to perform a full stroke test. Although the air operator can be removed to perform the full stroke test, this is a significant maintenance activity and could interfere with work which is necessary to restore the plant to service. This would create an unreasonable hardship for Illinois Power Company which is not consistent with the guidelines for cold shutdown testing which were provided in Generic Letter 89-04.

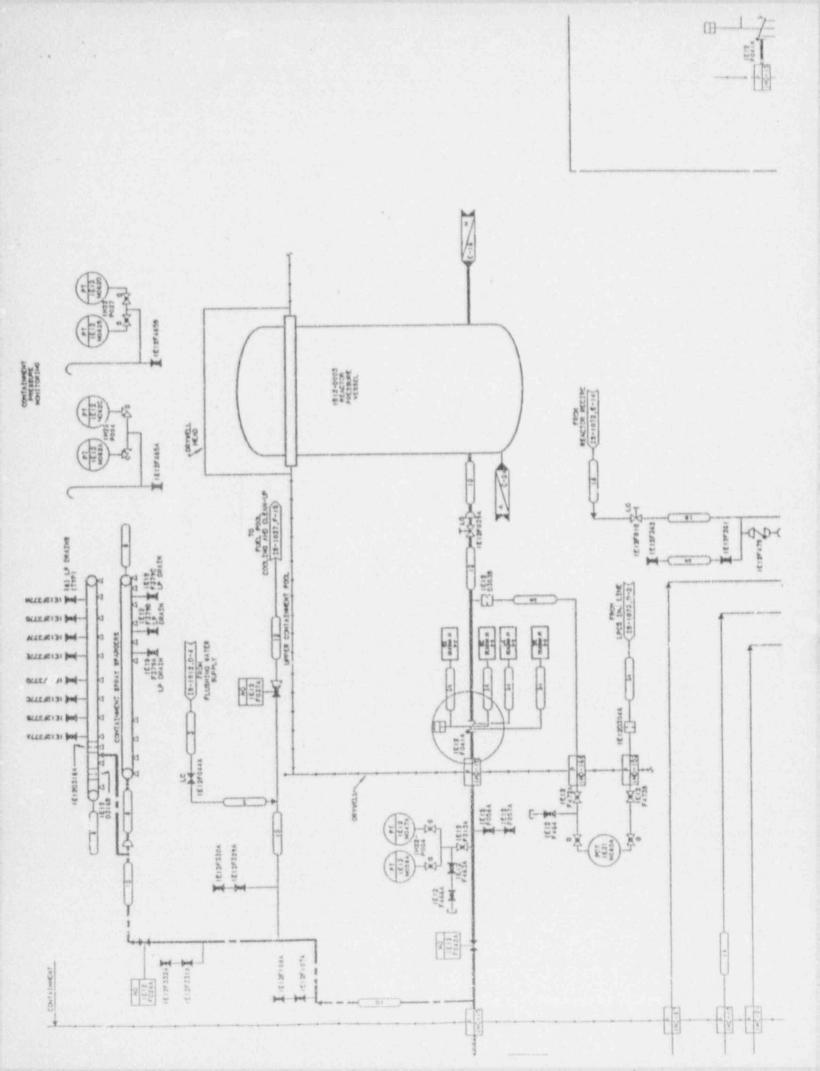
Using pump pressure to exercise these valves during cold shutdown is also not in the interest of plant safety. Although temperature could be matched fairly closely between the injection source (emergency core cooling systems) and the reactor, a minor thermal mismatch between these temperatures creates an undesirable effect on the fatigue life of the reactor nozzles.

In addition, the injection lines associated with the residual heat removal system nozzles are not equipped with internal spargers. General Electric Service Information Letter 401 identifies problems in injecting water through this flow path and the potential damage to nuclear instrumentation or fuel assemblies which could occur if this flow path were used for other than emergency conditions.

ALTERNATE TESTING PROPOSED

Illinois Power Company will partial-stroke exercise these valves using the air operators during cold shutdown and full

stroke exercise the valves by removing the air actuator during refueling outages and measuring the torque required to lift the disc and then move the disc through a full stroke.



ASME Saction XI Relief Request

RELIEF REQUEST 2033

COMPONENT INFORMATION

Valves 1G33-F051 and 1G33-F052A/B are the injection check valves which complete the flow path between the Reactor Water

Cleanup (RT) System and the Reactor Pressure Vessel. These valves are ASME Section III Code Class 2, Section XI Category B valves. They are 4-inch check valves of identical design: I are circled on the attached drawing.

CODE REQUIREMENTS

The ASME Code, Section I, Subarticle IWV-3520 requires that these valves be full-stroke exercised individually every

three (3) months.

RELIEF REQUEST/JUSTIFICATION

1G33-F052A/B are parallel valves in the piping system and both of these valves are in series with 1G33-F051. These valves are

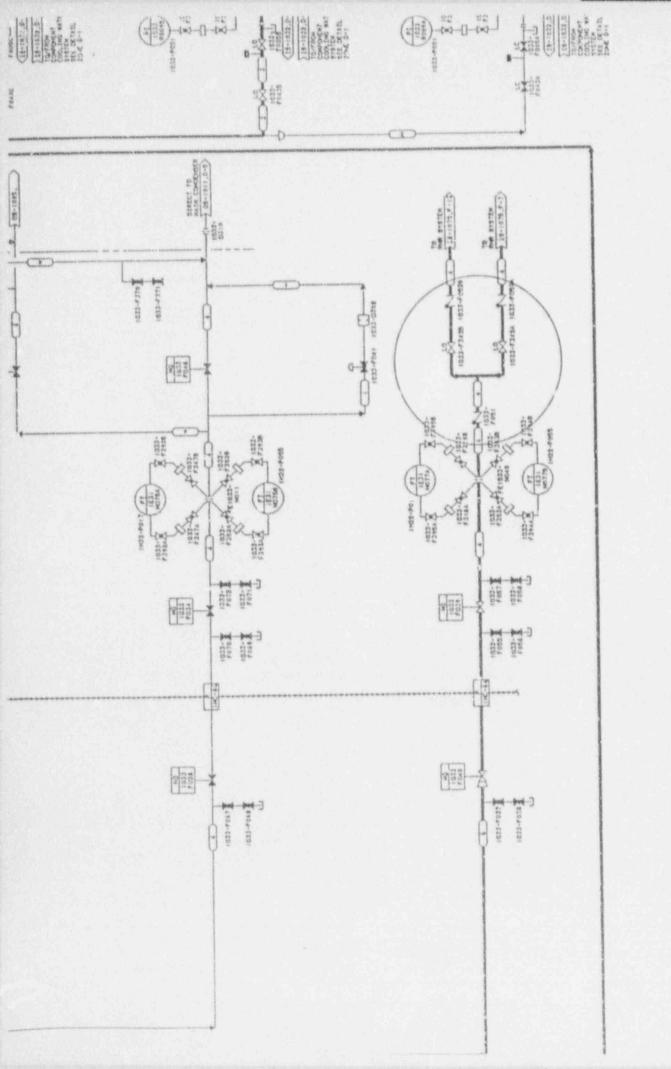
located in series with no test connections provided between them to permit individual valve testing. Illinois Power Company considers valves 1G33-F052A and 1G33-F051 (both are in series) as a single entity and will test the valves as such. Valves 1G33-F052B and 1G33-F051 (both are in series) are also considered as a single entity for testing purposes and will be tested as such.

These units (valves) cannot be tested every three (3) months, since they are located in the Steam Tunnel and physical access is restricted during normal plant operation due to the high radiation field in this area. Testing these valves during cold shutdown will either require the Reactor Water Cleanup (RT) System to be out of service or will require flow to be bypassed to the condenser. Testing these valves with RT system flow bypassed to the condenser may create spurious differential flow signals and may cause containment isolation valves in this system to isolate and subsequently trip the RT pumps, which will likely require filing a Licensee Event Report (LER). Fither method will cause the RT system to be out of service and create potential delay for plant startup. This will cause unnecessary hardship for Illinois Power Company without any significant gain in safety.

ALTERNATE TESTING PROPOSED

Illinois Power Company considers these check valves in series as a single entity and will perform the closure test every refueling

outage as a single unit. Acceptance criteria will be established and in the event of not meeting this criteria, appropriate action will be initiated for the entity and the deficiency will be corrected.



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ASME Section XI Relief Request

RELIEF REQUEST 3002 (Revision 2)

COMPONENT INFORMATION

This relief request refers to three (3) Diesel Fuel Oil (DO) transfer pumps (1D001PA, 1D001PB, and 1D001PC). These

pumps are used to transfer diesel fuel from the diesel storage tanks to the diesel fuel day tanks. The pumps are ASME Section III, Code Class 3. All of the pumps are Delaval IMO type N3DBS-137. CPS tests the pumps at a fixed differential pressure (DP) of 13 psid, with baseline flowrates ranging from 16.424 to 18.13 gpm.

CODE REQUIREMENTS

The ASME Code, Section XI, Subsection IWP-3210 tabulates the allowable ranges of inservice test quantities

(flowrate) in relation to the reference or baseline values. Table IWP-3100-2 requires an acceptable flowrate range of 0.94 to 1.02 of baseline flowrate, and an Alert range of 0.9 to 1.03 of baseline flowrate.

RELIEF REQUEST/JUSTIFICATION

Because the DO pumps operate at a low flow and the Code specified acceptable ranges are based upon a percentage of the

baseline, an increase in flow of less than 0.5 gpm (1.02 x baseline flowrate) is sufficient to force any of the pumps into the Required Action range. (SEE GRAPH 1)

The design required fuel delivery rates for each of the diesel generators (supplied by the day tanks which the DO pumps maintain) is considerably less than the rated fuel delivery of any of the three DO pumps. The diesel engines are equipped with skid mounted pumps which supply fuel oil at a rate of 4 gpm per engine. The engines consume less than 3 gpm per engine with the excess routed back to the day tank. Pumps 1D001PA and 1D001PB supply 2 engines each and therefore 8 gpm has beer determined to be the limiting flow rate required for these pumps to ensure adequate fuel delivery. Pump 1D001PC supplies only 1 engine and therefore has a limiting flow rate of 4 gpm.

CPS believes that due to the low flow characteristics of the DO pumps and the significant margin of safety between the flow requirements of the diesel generator and the baseline flowrate provided by the DO pumps, compliance with the Code requirements constitute a hardship with no appreciable gain in safety.

ALTERNATE TESTING PROPOSED

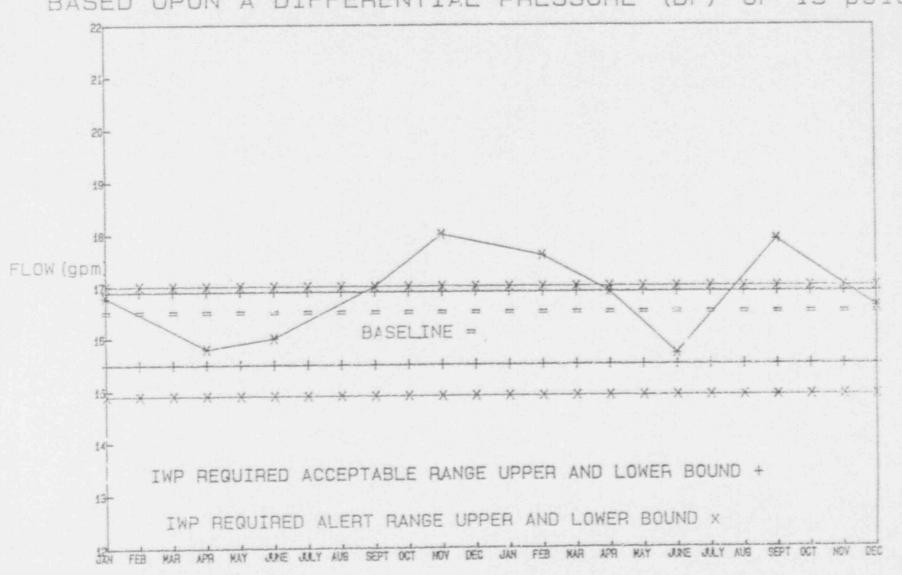
Illinois Power will utilize the following Allowable, Alert, and Action ranges for Diesel Oil pump flowrates.

Acceptable Range	≥ 14 gpm and ≤ 19 gpm
Alert Range	≥ 13 and <14 gpm or ≥ 19 and < 20 gpm
Action Range	< 13 gpm
	> 20 gpm

Based upon CPS's operating experience, CPS feels that the revised upper ranges will provide good indications of pump degradation without the unnecessary burden of requiring the pumps to be tested on an increased frequency or declared inoperable for minor (< 0.5 gpm) variations in flowrates. (SEE GRAPH 2)

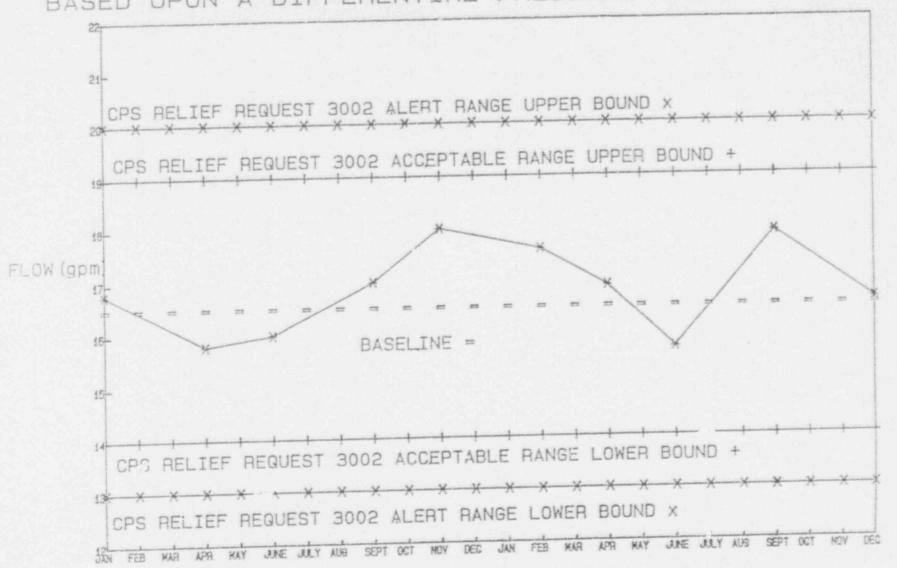
PUMP 1D001PA (GRAPH 1)

BASED UPON A DIFFERENTIAL PRESSURE (DP) OF 13 psid



PUMP 1D001PA (GRAPH 2)

BASED UPON A DIFFERENTIAL PRESSURE (DP) OF 13 psid



ASME Section XI Relief Request

RELIEF REQUEST 3006 (Revision 1)

COMPONENT INFORMATION

This relief request pertains to the four (4) water-leg pumps (1E12-C003, 1E21-C002, 1E22-C003, and 1E51-C003) in the CPS

IST program. These pumps are required to maintain the water level in the associated ECCS systems to ensure the prevention of a water-hammer transient in the event of an ECCS initiation. In addition, these pumps have similar characteristics. All four are Gould model 3196 ST, with the primary difference being impeller diameter. They are tested at flows anging from 50 to 64.5 gpm with baseline differential pressure. (JP) ranging from 44.4 to 48.3 psid for the 1E12-C003, 1E21-C002, and 1E22-C003 pumps and 29.4 psid for 1E51-C003. All pumps are ASME Code Class 2.

CODE REQUIREMENTS

The ASME Code Section XI, Subsection IWP-3210 tabulates the allowable and alert ranges of inservice test quantities

(differential pressure (DP)) in relation to the reference, or baseline, values. Table :WP-3100-2 requires an acceptable DP range of 0.93 baseline DP to 1.02 baseline DP and an alert range of 0.9 baseline DP to 1.03 baseline DP.

RELIEF REQUEST/JUSTIFICATION

Because the water-leg pumps operate at a low DP and the Code specified acceptable ranges are based on a percentage of the

baseline, a small increase in DP can result in the pump reaching the alert or action range when the pump is operating within design parameters.

Using data for the HPCS water-leg pump (1E22-C003) as a representative example, which has a baseline DP of 48.5 psid, the Code-required acceptable range varies from 45.1 to 49.5 psid, or less than 4.4 psid (SEE GRAPH 1). Likewise the Code-required alert range for 1E22-C003 varies from 43.7 to 50 psid, for a range of 6.3 psid.

CPS believes the lower acceptable and alert range boundaries (0.93 and 0.9 of baseline DP) are achievable without undue hardship. However, based upon the Code required upper acceptable and alert range boundaries of 1.02 and 1.03 baseline DP) a deviation of only 1.0 psid above baseline DP is sufficient to force any of the CPS waterleg pumps onto increased frequency, and an increase greater

than 1.5 psid above the baseline DP will place the pumps in the action range.

ALTERNATE TESTING PROPOSED

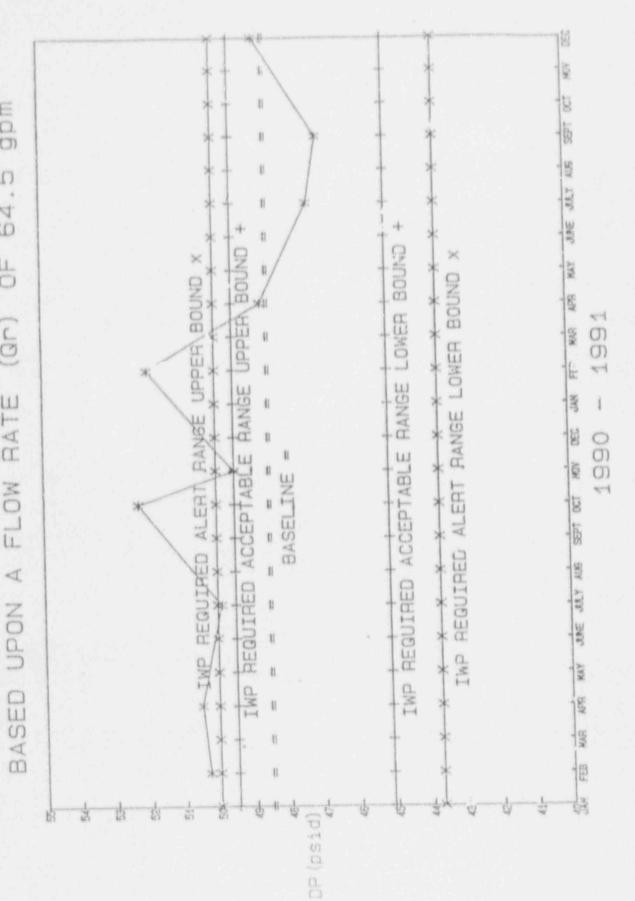
Illinois Power will utilize the following allowable, alert, and action ranges for water-leg pump differential pressure.

ceptable Range	(0.93 to 1.05) x (baseline dp value)
Alert Range	(0.90 to 1.10) x (baseline dp value)
Action Range	(0.90) x (baseline dp value) (1.10) x (baseline dp value)

Based upon CPS's operating experience, CPS feels that the revised upper ranges will privide good indications of pump degradation without the unnecessary burden of requiring the pumps to be tested on increased frequency or declaring them inoperable for minor (1 to 2 psid) v. ations in DP (SEE GRAPH 2). CPS has evaluated minor fluctuations of this type and has determined that this performance is not an indication of pump degradation, and the pumps are operating within design allowable limits.

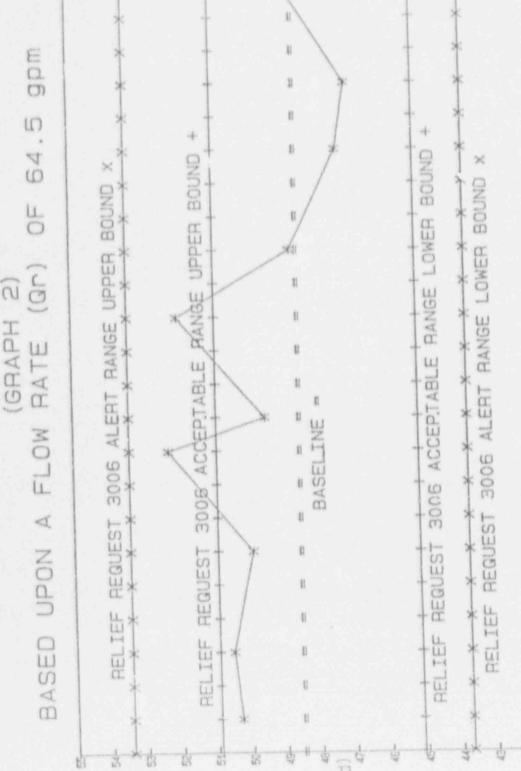
In addition, as these pumps are normally running, line pressure is continually monitored via pressure transmitters by the Main Control Room and any failure will be immediately observed by Control Room personnel.

UPON A FLOW RATE (Qr) OF 64.5 gpm PUMP 1E22-C003



PUMP 1E22-C003

•0



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Revised Relief Requests

Which Do Not Require NRC Review

ASME Section XI Relief Request

RELIEF REQUEST 1001 (Revision 1)

COMPONENT INFORMATION

All pumps and valves that are required to perform a specific function in shutting down the reactor or in mitigating the

CODE REQUIREMENTS

Subsection IWP-3400 requires performing an inservice test on each pump nominally every three

(3) months. Subsection IWV-3411 requires that valves be exercised and stroke timed at least once every three (3) months. Subsection IWV-3521 requires that check valves be exercised at least once every three (3) months.

RELIEF REQUEST/JUSTIFICATION

The ASME Code Section XI, various subsections mentioned above, specify the test frequency interval but do not

specify any allowable extension. Often there are operational constraints or other valid concerns that make it impractical to perform testing within the Code specified interval. It would be impractical and burdensome for CPS to strictly follow the Code testing intervals without extensions to cover necessary deviations. Clinton Power Station Technical Specification 4.0.2 specifies a maximum allowable extension not to exceed 25% of the surveillance interval. CPS proposes to have a 25% excension which is reasonable for most Code specified testing and provides an acceptable level of quality and safety. This is consistent with Technical Specification 4.0.5.c.

ALTERNATE TESTING PROPOSED

Illinois Power Company will utilize CPS Technical Specification 4.0.2 allowable extension with the specified

interval for all pumps and valves except safety and relief valves and valves not tested at three (3) month or shorter intervals.

ASME Section XI Relief Request

RELIEF REQUEST 2012 (Revision 1)

COMPONENT INFORMATION

These Automatic Depressurization System valves (1B21-F041B/C/D/F, 1B21-F047A/C, 1B21-F051G) depressurize the Reactor

Pressure Vessel to allow Low Pressure Core Spray and Low Pressure Coolant Injection Systems to inject water into the reactor. They are ASME Section III Code Class 1, Section XI Category B/C valves. They are 8 in. x 10 in. safety/relief valves.

CODE REQUIREMENTS

The ASME Code Section XI, Subsection IWV-3411 requires that these valves be exercised and stroke timed every three (3)

months. Section XI, Subsection IWV-3417(a) requires trending the stroke time test results and taking appropriate corrective action.

RELIEF REQUEST/JUSTIFICATION

Illinois Power Company requests relief from the Code requirements for the following reasons:

These valves cannot be exercised quarterly during power operations because failure of a valve in the open position would place the plant in a LOCA condition. These valves should not be exercised during cold shutdowns in order to reduce the number of challenges to safety/relief valves as recommended by NUREG-0737 and a recent study on the subject (BWR Owner's Group Evaluation of NUREG-0737 Item II.K.3.16, Reduction of Challenges and Failures of Relief Valves).

The reactor pressure is not utilized when testing these valves. A handswitch is utilized with a special tool which reduces the valve speed to avoid damaging the seating surfaces and the disk. Based upon CPS operating experience, Illinois Power Company will consider these valves as rapid acting valves. As these valves stroke rapidly, measurement of the stroke time of these valves to the nearest second per IWV-3413(b) means that a very small increase in stroke time could result in an extremely large percentage of change. The verification that these valves meet a specified maximum stroke time of a relatively short duration provides adequate assurance of operability of these valves.

ALTERNATE TESTING PROPOSED

Illinois Power Company will exercise and stroke time these valves during refueling outages.

Illinois Power Company will assign a maximum stroke time of two (2) seconds for these valves. If this limiting stroke time is exceeded, the valve will be declared inoperable and corrective action will be taken. This is in conformance with NRC Generic Letter 89-04, Attachment 1 Position 6.

ASME Section XI Relief Request

RELIEF REQUEST 2024 (Revision 1)

COMPONENT INFORMATION

Valves 1C11-126, 127 and 139 (typical of 145 each) are power operated valves which actuate (open) to scram the control rod

drives. Valve 1C11-114 (typical of 145 each) is the scram discharge check valve. Refer to the attached schematic drawing for the system.

Valve 126 is a power operated, Category B, 1" diaphragm operated control valve. This valve opens to allow flow to scram the control rod drive. Valve 127 is a power operated, Category B, 3/4" diaphragm operated control valve. This valve opens to allow flow to exhaust from the control rod drive to the scram discharge volume. Valve 139 is a power operated, Category B, pilot air valve. This valve opens to relieve pressure to valves 126 and 127 which causes them to open. Valve 114 is a 3/4" check valve, Category C. This valve opens to allow flow to the scram discharge volume.

CODE REQUIREMENTS

ASME Section XI, Subarticles IWV-3411 and IWV-3413 require power operated valves to be exercised and stroke time tested every 3 months. IWV-3521

requires check valves to be exercised on a 3 month frequency, as well. These valves are not ASME Class 1, 2, or 3, but are included in the CPS Inservice Testing Program since the system performs a safety function. This relief request does not require NRC approval.

EXLIEF REQUEST/JUSTIFICATION

These valves operate simultaneously when a scram signal is present. As these valves are skid mounted with no provisions for testing, it is

not practical to individually test each valve without extensive modifications, which would create a financial hardship to Illinois Power Company. The current testing, per Technical Specification 4.1.3.2, monitors individual rod scram time. This testing does not measure stroke time for the power operated valves or provide specific exercising verification for either the power operated or check valves. However, it does assure that each valve functions properly to allow the rod to move to its safety position in the required time.

ALTERNATE TESTING PROPOSED

Testing of the control rod drive hydraulic control units per Technical Specification 4.1.3.2 will be performed in lieu of the Code requirements. The

Technical Specifications require all rods to be tested following any core alterations and any prolonged outages (120 days). Ten percent of the rods are tested on a rotating basis every 120 days and any rod requiring maintenance is tested upon completion of the work. This is in accordance with NRC Generic Letter 89-04, Attachment 1, Item 7.

ASME Section XI Relief Request

RELIEF REQUEST 2026 (Revision 1)

COMPONENT INFORMATION

4 4 0 4

Diesel generator (DG) air start valves, 1DG008A-K are 1.5" power operated, Category B valves required to open to allow air to

flow to the air motors which start the emergency Diesel Generators to supply back-up power for the plant.

CODE REQUIREMENTS

ASME Section XI, Subarticles IWV-3411 and IWV-3413 require power operated valves to be exercised and have their stroke

time measured every three (3) months. These valves, however, are not ASME Class 1, 2, or 3, but are included in the CPS Inservice Testing Program since the system performs a safety function. Therefore, this relief request does not require NRC approval.

RELIEF REQUEST/JUSTIFICATION

These valves are totally enclosed solenoid valves with no positive means of determining valve position. It is not

practical to record individual stroke time for these valves without extensive modifications, which would create a financial hardship to Illinois Power Company. Technical Specification 4.8.1.1.2 requires each diesel generator to be tested at least every 31 days. These tests are designed to test the diesel generator as a unit, but do not specifically verify actuation of each individual valve.

ALTERNATE TESTING PROPOSED

No stroke time testing of these air start valves will be performed. The air gauge upstream of each valve will be

monitored to verify that a pressure drop has occurred which indicates that the valves have opened. In addition, diesel generator start times are monitored closely. This test will be performed on a monthly frequency.

ASME Section XI Relief Request

RELIEF REQUEST 2032 (Revision 1)

COMPONENT INFORMATION

This Relief Request refers to Power (Air) Operated valves with a stroke time of 10 seconds or less (see Table 2032-1).

CODE REQUIREMENTS

The ASME Code Section XI, Subarticle IWV-3417(a) requires increasing the testing frequency to monthly for a 50% increase

from the previous stroke time test.

RELIEF REQUEST/JUSTIFICATION

Per Generic Letter 89-04 these valves are defined as rapid acting (with a normal stroke time of less than 10 seconds),

where a 2 second increase can cause the testing frequency for the valves to be increased from quarterly to monthly. CPS's operating experience has shown that when placed on increased frequency for minor increases in stroke time (1 - 2 seconds), none of these valves were found to have a physical problem and all were subsequently returned to normal frequency.

ALTERNATE TESTING PROPOSED

Illinois Power Company proposes to evaluate the test results for the air-operated valves on Table 2032-1 in accordance with

Generic Letter 89-04, Positions 5 and 6, and the Minutes of the Public Meetings on Generic Letter 89-04, page 26, Response to Question 40. Specifically, CPS will establish a reference value for each valve in Table 2032-1 based upon each valve's average stroke time when it is in good condition and operating properly. Should any valve's stroke time increase by more than 50% from the valve's reference value, CPS will consider this to be an indication of potential valve degradation and increase the valve's testing frequency.

Should any valve's stroke time increase beyond the valve's limiting stroke time value, the valve will be declared inoperable.

As this position is in accordance with the positions stated in NRC Generic Letter 89-04, no further NRC approval is required.

ILLINOI: POWER COMPANY CLINTON POWER STATION SECTION XI RELIEF REQUEST

Table 2032-1 (Rev. 1)

Water Company of the		Marian Samuran
Stroke Time (sec.)	Minimum (sec.)	Maximum (sec.)
1.44		2
		2
		2
		2
	3	6
	2	4
		0
		6
	1	Z
	2	3
		6
		3
2.02		3
2.65	2	3
2.12	2	5
1.56		3
4,62		6
3.74	4	6
3.61	4	5
4.68		6
2.43	3	5
3.74	4	6
3.81	3	5
4.69	4	6
3.41	3	5
4.93	5	6
5.11	5	6
1.02	2	3
	1	2
	2.	4
	3	5
	2	4
	2	8
	3	5
	2	4
	2	4
		6
	2	3
	2	6
1 23	1	4
2 12	1	3
	2	4
		3
		3
		5
		2
	1.38 1.10 1.16 4.31 1.91 4.25 4.44 1.09 2.11 3.80 1.91 2.02 2.65 2.12 1.56 4.62 3.74 3.61 4.68 2.43 3.74 3.81 4.69 3.41 4.93	1.38 1.10 1.16 1.16 1.31 1.91 2.4.25 3.4.44 3.1.09 2.11 3.80 3.1.91 2.02 2.12 2.65 2.12 2.65 2.12 1.56 4.62 3.74 3.61 4.68 2.43 3.74 3.61 4.68 2.43 3.74 3.81 4.69 3.41 3.81 4.69 3.41 3.81 4.93 5.11 1.02 0.98 1.68 3.59 3.74 3.05 6.4 2.55 3.16 4.04 3.180 2.12 2.46 1.53 1.80 2.12 2.46 1.53 1.86 3.27 1.41

ILLINOIS POWER COMPANY CLINTON POWER STATION SECTION XI RELIEF REQUEST

Table 2032-1 (Rev. 1)

	Baseline	Stroke Time(s) for I	
Valve No.	Stroke Time (sec.)	Minimum (sec.)	Maximum (sec.)
1SX193A	2.15	2	3
1SX193B	1.52	2	3
1SX197	1.57	2	3
1SX209	2.05	1	3
1VQ002	2.51		3
1VQ003	4.11	2	5
1VQ004A	3.92	2	4
1VQ004B	3.28	2	4
1VQ005	0.93		2
1VR001A	1.70		3
1VROO1B	1.35	2	4
1VR006A	3,23	2	4
1VR006B	3.01	2	4
1VR007A	2.68	2	4
1VR007B	3.77	2	4
1WX019	1.19		2
1WX020	1.34		2