

INDIAN POINT NUCLEAR GENERATING UNIT NO. 2

(Docket No. 50-247)

INSERVICE TESTING PROGRAM SUMMARY

for the interval

JULY 1, 1984, through JUNE 30, 1994

Consolidated Edison Company of New York, Inc.  
January 1984

Revision 4  
December, 1990

9101280030 901228  
PDR ADOCK 05000247  
PDR

# Indian Point Nuclear Generating Unit No. 2

## Inservice Testing Program

### Introduction

The inservice testing program described herein has been developed as required by Section 50.55a of 10 CFR Part 50 to implement the requirements of the ASME Boiler and Pressure Vessel (B&PV) Code Section XI to the extent practical. | 4

### Applicability

Consistent with Section 50.55a of 10 CFR Part 50, this program is applicable to the inservice testing of pumps and valves required for safety for the unit's second ten-year interval (July 1, 1984, through June 30, 1994). Implementation of this program commenced following start-up from the unit's sixth refueling outage (the final refueling outage of the first ten-year interval). In certain instances implementation of this program may have commenced prior to the start of the sixth refueling outage as implementing procedures were developed and approved. | 4

### Applicable Codes

Accordance with Section 50.55a(g) of 10 CFR Part 50, the applicable ASME B&PV Code Section XI, Division I edition and addenda for the interval described above is the 1980 edition with addenda through Winter 1981.

### Program Description

Enclosure 1 identifies the Indian Point Unit No. 2 plant specific systems subject to the inservice testing requirements of ASME B&PV Code Section XI, Subsection IWP and IWV. This listing has been developed in consideration of the appropriate NRC regulatory guidance, Exhibit A to Con Edison Corporate Instruction 240-1, QA Program for Operating Nuclear Plants (list of Class A systems), and the Indian Point Unit No. 2 Technical Specifications.

Enclosures 2 and 3 identify the pumps and valves to be tested in accordance with subsections IWP and IWV, respectively. The pumps and valves are listed followed by both general and specific relief requests where it has been found that the testing requirements for a pump or valve are impractical. In such instances any appropriate alternative testing provisions have been identified. General relief requests are used when the impracticality of a particular test requirement applies to more than one pump or more than one valve. Specific relief requests are unique to a particular pump or valve. It should be noted that not every pump or valve in systems identified in Enclosure 1 will be identified for testing in Enclosure 2 and 3. This is due to the provisions of the ASME B&PV Code Section XI that limit the applicability of the testing requirements to pumps and valves of certain types performing certain functions.

The testing program outlined in the enclosures has been developed following a design review. Should certain ASME B&PV Code Section XI requirements prove to be impractical due to unforeseen circumstances, subsequent relief from that requirement will be requested.

ENCLOSURE TABULATION

ENCLOSURE

DESCRIPTION

- |   |   |  |
|---|---|--|
| 1 | ○ | Systems Subject to Inservice Testing (Cover Sheet)         |
|   | ○ | List of Enclosure 1 subjects and effective pages           |
|   | ○ | Enclosure 1  |
| 2 | ○ | Inservice Testing Program Summary for Pumps (Cover Sheet)  |
|   | ○ | List of Enclosure 2 subjects and effective pages           |
|   | ○ | Enclosure 2  |
| 3 | ○ | Inservice Testing Program Summary for Valves (Cover Sheet) |
|   | ○ | List of Enclosure 3 subjects and effective pages           |
|   | ○ | Enclosure 3  |

Enclosure 1

Systems Subject to Inservice Testing

Indian Point Unit No. 2

January 1984

Revision 4  
December, 1990

ENCLOSURE 1

LIST OF SUBJECTS AND EFFECTIVE PAGES

SUBJECT

NUMBER OF PAGES

List of Systems Subject to Inservice Testing

3

Enclosure 1

List of Systems Subject to Inservice Testing

The following list represents the systems included in this IST Program. To obtain the list, CI-240-1 was reviewed against the NRC Draft Regulatory Guide entitled "Identification of Valves for Inclusion in Inservice Testing Programs." In addition, the Technical Specifications were reviewed to ensure that all containment isolation valves and their respective systems were included.

<u>GENERIC</u>	<u>CI-240-1 SYSTEM</u>	<u>DRAWINGS</u>
1.1 Reactor Coolant System and any proposed path for established natural circulation	Reactor Coolant System PRT, Pressurizer System, Relief Valves, Main and Auxiliary Feed Systems	9321-F-2738
1.2 Portions of Main Steam	Main Steam System	9321-F-2017
1.3 High Pressure Coolant Injection (HPCI)	Safety Injection (HPCI)	9321-F-2735
1.4 Low Pressure Injection	Safety Injection (RHR) includes LPCI, External Internal Recirculation, Containment Sump	(See 1.3)
Accumulator System	Safety Injection (SI)	(See 1.3)
1.6 Containment Spray System	Safety Injection- Containment Spray	(See 1.3)
1.7 Primary and Secondary System Safety and Relief Valves and Atmospheric Relief valves	RCS, Main Steam	(See 1.1 and 1.2) 9321-F-4061
1.8 Portions of Main Feedwater System	Boiler Feedwater, Condensate and Boiler Feedpump	9321-F-2019 9321-F-2018
1.9 Auxiliary Feedwater System	Auxiliary Feedwater System	(See 1.8)
1.10 Residual Heat Removal System (shut-down cooling)	RHR System	(See 1.4)
1.11 Component Cooling Water System	Component and Auxiliary Component Cooling Water Systems	9321-F-2720 A227781

Enclosure 1 (continued)

<u>GENERIC</u>	<u>CI-240-1 SYSTEM</u>	<u>DRAWINGS</u>
Service Water Systems Ultimate Heat Sink	Service Water System	9321-F-2722 A209762
1.13 Containment Isolation Valves	Includes Various Systems 1. Auxiliary Steam 2. Air Ejector to Containment 3. Containment Pressure Sensing 4. City Water to Containment 5. S/G Blowdown 6. Containment Purge and Pressure Relief 7. Containment Rad. Monitors	9321-F-2027 9321-F-2025 9321-F-2735 9321-F-2678 9321-F-2729 9321-F-4022 9321-F-2726 9321-F-7045
1.14 Chemical Volume and Control System (CVCS)	CVCS	9321-F-2736  A208168
1.15 Ventilation Systems that perform a function important to safety	Post Accident Containment Venting Containment Recirculation Fans Post Accident Containment Air Sampling Air Ejector to Containment	9321-F-4061 and B208879 9321-F-4022  A208479 9321-F-2025
1.16 Instrument Air System	Instrument Air Station Air	9321-F-2036 9321-F-2035
1.17 PORV and Block Valves	Reactor Coolant System	9321-F-2738
1.18 Closure Head Vent System	RCS Head Vent System	(See 1.1)
1.19 EDG Auxiliary System		
a. Air Starting System	EDG Air Start System	9321-H-2029
b. Cooling Water System	Service Water System - EDG Cooling Portion Jacket Water to Diesel Generator	(See 1.12)  9321-H-2028
c. Fuel Oil Storage and Transfer System	Fuel Oil to Diesel Generators	9321-F-2030

Enclosure 1 (continued)

Additional systems and portions of systems to be included in the program include the following:

<u>GENERIC</u>	<u>CI-240-1 SYSTEM</u>	<u>DRAWINGS</u>
None	H2 Recombiner System	9321-F-2727
None None	Waste Disposal System (CIVs only)	9321-F-2719
None None	Sampling System (Primary CIVs)	9321-F-2745 and A227178
None None	Personnel Air Lock (CIVs only)	FSAR Figure 5.2-27
None	Reactor Coolant Pump Seal Water	(See 1.14)
None	Isolation Valve Seal	9321-F-2746
None	Containment Penetration Weld Channel Pressurization	9321-F-2726

Enclosure 2

Inservice Testing Program Summary for Pumps

Indian Point Unit No. 2

January 1984

Revision 4  
December, 1990

ENCLOSURE 2

LIST OF SUBJECTS AND EFFECTIVE PAGES

<u>SUBJECT</u>	<u>NUMBER OF PAGES</u>
Inservice Test Program - Quality Group A, B, and C Pumps	1 of 1
Pump Test Summary	*
Pump Relief Requests	
Relief Request: 01	4
Relief Request: 02	2
Relief Request: 03	1
Relief Request: 04	1
Relief Request: 05	1
Relief Request: 06	1
Relief Request: 07	1
Relief Request: 08	2
Relief Request: 09	1
Relief Request: 10	1
Relief Request: 11	1
Relief Request Notes	

\* The Summary Table is page numbered as a computer printout as indicated on the table pages.

Indian Point Nuclear Generating Unit No. 2

Inservice Test Program - Quality Group A, B, and C Pumps

2.0 PUMPS SUBJECT TO THE TESTING REQUIREMENTS OF ASME CODE SECTION XI, ARTICLE IWP:

Safety Injection Pumps 21, 22, and 23  
Containment Spray Pumps 21 and 22  
Recirculation Pumps 21 and 22  
Service Water Pumps 21, 22, 23, 24, 25, and 26  
Residual Heat Removal Pumps 21 and 22  
Component Cooling Pumps 21, 22, and 23  
Auxiliary Component Cooling Pumps 21 and 22  
Auxiliary Boiler Feedwater Pumps 21, 22, and 23  
Boric Acid Transfer Pumps 21 and 22  
Charging Pumps 21, 22, and 23  
Fuel Oil Transfer Pumps 21, 22, and 23  
SI Pumps 21, 22, and 23 CCW Circulating Pumps

2.0 PROGRAM DESCRIPTION:

The following tabulation lists the pump identification, diagram number and coordinates, quality group, parameters to be measured or observed, and the test frequency. Requests for relief (R-R) numbers have been noted in the appropriate parameter columns followed by the Section XI Article numbers from which the reliefs are requested in the Section XI Code Relief Request column. In addition, a reference to explanatory notes has been made in the applicable parameter columns.

The detailed description of the requests for relief, containing the basis for relief and alternate testing, and the explanatory notes follow the program tabulation.

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM PUMP LIST

PUMP	P&ID	QUAL GROUP	SPEED	INLET PRESS	OUTLET PRESS	DIFF PRESS	FLOW	VIB	LUB	BEARING TEMP
21SIP	2735	B	N/A (A)	Q RR2 RR10	Q RR2 RR10	Q RR2	Q RR2	Q RR2	Q RR2	Y RR3
REMARKS: 21 SAFETY INJECTION PUMP - SEE NOTE (A) FOR SPEED										
22SIP	2755	B	N/A (A)	Q RR2 RR10	Q RR2 RR10	Q RR2	Q RR2	Q RR2	Q RR2	Y RR3
REMARKS: 22 SAFETY INJECTION PUMP - SEE NOTE (A) FOR SPEED										
23SIP	2735	B	N/A (A)	Q RR2 RR10	Q RR2 RR10	Q RR2	Q RR2	Q RR2	Q RR2	Q RR3
REMARKS: 23 SAFETY INJECTION PUMP - SEE NOTE (A) FOR SPEED										
21CSP	2735	B	N/A (A)	Q RR10	Q RR10	Q RR2	Q RR2	Q RR2	Q RR2	Y RR3
REMARKS: 21 CONTAINMENT SPRAY PUMP - SEE NOTE (A) FOR SPEED										
22CSP	2735	B	N/A (A)	Q RR10	Q RR10	Q RR2	Q RR2	Q RR2	Q RR2	Y RR3
REMARKS: 22 CONTAINMENT SPRAY PUMP - SEE NOTE (A) FOR SPEED										
21RP	235296	B	N/A (A)	R RR1	R RR1 RR10	R RR1	R RR1	R R11	N/A RR4	N/R RR6
REMARKS: 21 RECIRCULATION PUMP - SEE NOTE (A) FOR SPEED										
22RP	235296	B	N/A (A)	R RR1	R RR1 RR10	R RR1	R RR1	R RR1	N/A RR4	N/R RR6
REMARKS: 22 RECIRCULATION PUMP - SEE NOTE (A) FOR SPEED										
21SWP	2722	C	N/A (A)	Q (F)	Q RR10	Q RR2	Q RR2	Q RR2	N/A RR4	N/R RR5
REMARKS: 21 SERVICE WATER PUMP - NOTE (A) FOR SPEED, (F) FOR PI										
22SWP	2722	C	N/A (A)	Q (F)	Q RR10	Q RR2	Q RR2	Q RR2	N/A RR4	N/R RR5
REMARKS: 22 SERVICE WATER PUMP - NOTE (A) FOR SPEED, (F) FOR PI										

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM PUMP LIST

PUMP	P&ID	QUAL GROUP	SPEED	INLET PRESS	OUTLET PRESS	DIFF PRESS	FLOW	VIB	LUB	BEARING TEMP
23SWP	2722	C	N/A (A)	Q (F)	Q RR10	Q RR2	Q RR2	Q RR2	N/A RR4	N/R RR5
REMARKS: 23 SERVICE WATER PUMP - NOTE (A) FOR SPEED, (F) FOR PI										
24SWP	2722	C	N/A (A)	Q (F)	Q RR10	Q RR2	Q RR2	Q RR2	N/A RR4	N/R RR5
REMARKS: SERVICE WATER PUMP - SEE NOTE (A) FOR SPEED, (F) FOR PI										
25SWP	2722	C	N/A (A)	Q (F)	Q RR10	Q RR2	Q RR2	Q RR2	N/A RR4	N/R RR5
REMARKS: 25 SERVICE WATER PUMP - NOTE (A) FOR SPEED, (F) FOR PI										
26SWP	2722	C	N/A A	Q F	Q RR10	Q RR2	Q RR2	Q RR2	N/A RR4	N/R RR5
REMARKS: 26 SERVICE WATER PUMP - NOTE (A) FOR SPEED, (F) FOR PI										
21RHRP	227781	B	N/A (A)	Q RR10	Q RR10	Q RR2	Q RR2	Q RR2	N/A RR4	Y RR3
REMARKS: 21 RESIDUAL HEAT REMOVAL PUMP - SEE NOTE (A) FOR SPEED										
22RHRP	227781	B	N/A (A)	Q RR10	Q RR10	Q RR2	Q RR2	Q RR2	N/A RR4	Y RR3
REMARKS: 22 RESIDUAL HEAT REMOVAL PUMP - SEE NOTE (A) FOR SPEED										
21CCP	227781	C	N/A (A)	Q RR10	Q RR10	Q	Q	Q	Q	Y RR3
REMARKS: 21 COMPONENT COOLING PUMP - SEE NOTE (A) FOR SPEED										
22CCP	227781	C	N/A (A)	Q RR10	Q RR10	Q	Q	Q	Q	Y RR3
REMARKS: 22 COMPONENT COOLING PUMP - SEE NOTE (A) FOR SPEED										
23CCP	227781	C	N/A (A)	Q RR10	Q RR10	Q	Q	Q	Q	Y RR3
REMARKS: 23 COMPONENT COOLING PUMP - SEE NOTE (A) FOR SPEED										

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM PUMP LIST

PUMP	P&ID	QUAL GROUP	SPEED	INLET PRESS	OUTLET PRESS	DIFF PRESS	FLOW	VIB	LUB	BEARING TEMP
21ACCP	227781	C	N/A (A)	Q,R RR10,	Q,R RR10,	Q,R	Q,R	Q,R	N/A RR4	Y RR3
REMARKS: 21 AUXILIARY COMPONENT COOLING PUMP - SEE NOTE (A) & (H)										
22ACCP	227781	C	N/A (A)	Q,R RR10,	Q,R RR10,	Q,R	Q,R	Q,R	N/A RR4	Y RR3
REMARKS: 22 AUXILIARY COMPONENT COOLING PUMP - SEE NOTE (A) & (H)										
21AFP	2019	C	N/A (A)	Q RR2 RR10	Q RR2 RR10	Q RR2	Q RR2	Q RR2	Q RR2	Y RR3
REMARKS: AUXILIARY FEEDWATER PUMP - SEE NOTE (A) FOR SPEED										
22AFP	2019	C	Q	Q RR2 RR10	Q RR2 RR10	Q RR2	Q RR2	Q RR2	Q RR2	Y RR3
REMARKS: 22 AUXILIARY FEEDWATER PUMP - SEE NOTE (A) FOR SPEED										
23AFP	2019	C	N/A (A)	Q RR2 RR10	Q RR2 RR10	Q RR2	Q RR2	Q RR2	Q RR2	Y RR3
REMARKS: 23 AUXILIARY FEEDWATER PUMP - SEE NOTE (A) FOR SPEED										
21CHP	2736	B	Q RR8	Q RR8 RR10	Q RR8 RR10	N/A (C)	Q RR8	Q RR8	Q	Y RR8 R
REMARKS: 21 CHARGING PUMP - SEE NOTE (C) AND (D)										
22CHP	2736	B	Q RR8	Q RR8 RR10	Q RR8 RR10	N/A (C)	Q RR8	Q RR8	Q	Y RR8 R
REMARKS: 22 CHARGING PUMP - SEE NOTE (C) AND (D)										
23CHP	2736	B	Q RR8	Q RR8 RR10	Q RR8 RR10	N/A (C)	Q RR8	Q RR8	Q	Y RR8 R
REMARKS: 23 CHARGING PUMP - SEE NOTE (C) AND (D)										
21FOTP	2030	NA	N/A (A)	Q (E)	Q RR10	Q	RR9	Q RR7	N/A RR4	Y RR7
REMARKS: 21 FUEL OIL TRANSFER PUMP - SEE NOTE (A) AND (E)										

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM PUMP LIST

PUMP	P&ID	QUAL GROUP	SPEED	INLET PRESS	OUTLET PRESS	DIFF PRESS	FLOW	VIB	LUB	BEARING TEMP
22FOTP	2030	NA	N/A (A)	Q (E)	Q RR10	Q	RR9	Q RR7	N/A RR4	RR7
REMARKS: 22 FUEL OIL TRANSFER PUMP - SEE NOTE (A) AND (E)										
23FOTP	2030	NA	N/A (A)	Q (E)	Q RR10	Q	RR9	Q RR7	N/A RR4	RR7
REMARKS: 23 FUEL OIL TRANSFER PUMP - SEE NOTE (A) AND (E)										
21BATP	2736	NA	N/A (A)	Q (D)	Q RR10	Q	Q	Q	N/A RR4	Y RR3
REMARKS: 21 BORIC ACID TRANSFER PUMP - SEE NOTE (A) AND (D)										
22BATP	2736	NA	N/A (A)	Q (D)	Q RR10	Q	Q	Q	N/A RR4	Y RR3
REMARKS: 22 BORIC ACID TRANSFER PUMP - SEE NOTE (A) AND (D)										
21SICP	227781	C	N/A (A)	RR11 RR10	RR11 RR10	RR11	Q	Q	Q	Y RR3
REMARKS: 21 SI PUMP CCW CIRCULATING PUMP - SEE NOTE (A) FOR SPEED										
22SICP	227781	C	N/A (A)	RR11 RR10	RR11 RR10	RR11	Q	Q	Q	Y RR3
REMARKS: 22 SI PUMP CCW CIRCULATING PUMP - SEE NOTE (A) FOR SPEED										
23SICP	227781	C	N/A (A)	RR11 RR10	RR11 RR10	RR11	Q	Q	Q	Y RR3
REMARKS: 23 SI PUMP CCW CIRCULATING PUMP - SEE NOTE (A) FOR SPEED										

=====

TOTAL PUMPS = 34

\*\*\* LAST PAGE \*\*\*

RELIEF REQUEST BASIS

Relief Request: 01

Pumps: Recirculation Pumps 21 & 22

Test Requirement: (IWP-3400[a])

An inservice test shall be run on each pump, approximately each quarter during normal plant operation. It is recommended that this test frequency be maintained during shutdown periods where this can reasonably be accomplished, although this is not mandatory. If it is not tested during plant shutdown, the pump shall be tested within one week after plant is returned to normal operation.

Relief is requested from testing the pumps each quarter.

Basis for Relief:

The Recirculation pumps are located inside containment and are not accessible for testing during normal plant operation. Consequently, relief is requested from testing these pumps at the frequency specified by subsection IWP. The function of these pumps is to permit recirculation of the spilled post-LOCA containment inventory. The pumps are sized such that only one pump is required to maintain long term core cooling. Two external low head injection recirculation (Residual Heat Removal) pumps provide additional backup recirculation capability taking suction from a separate sump inside containment. As for the recirculation pumps, only one low head injection/recirculation (Residual Heat Removal) pump is required to maintain long term core cooling. The redundancy afforded by these two sets of redundant pumps far exceeds the requirements of the appropriate General Design Criteria.

The Recirculation pumps are the vertical centrifugal type, the pumped fluid providing the bearing lubrication/cooling. They are located in a 12,000 gallon capacity sump inside containment. Each pump is rated at 3000 gpm. Because the pumped fluid serves to lubricate/cool the bearings, the manufacturer recommends against running these pumps dry. Pump design is such that no provisions are available to permit the installation of auxiliary bearing water cooling lines thereby precluding testing these pumps dry. Several approaches to testing the Recirculation pumps have been considered. These include full flow at code frequency, part flow at code frequency, full flow at refuelings and part flow at refuelings. Of these, only part flow at refuelings is considered practical.

Following are some of the considerations involved with the less practical of these alternatives.

Full flow at code frequency

Installed recirculation loop piping is sized for minimum flow. A full flow test, therefore, would require the use of the low head injection header to the Reactor Coolant System and a source of water to maintain sump level. Since the Recirculation pumps are low head pumps (250 psig, design discharge pressure), Reactor Coolant System/Recirculation system pressure differential precludes this type of testing.

Full flow at refuelings

The low head injection header could be utilized with the Reactor Coolant System depressurized. At full flow, one Recirculation pump will empty the recirculation sump in less than four minutes, a duration insufficient to permit the required data gathering. In order to test in this mode, then, a source of makeup to the recirculation pump is required. Since the minimum required RCS shutdown margin must be maintained, a source of borated water of the proper concentration would be required. Although sources are available, there are currently no installed piping systems that would permit making-up borated water of the appropriate concentration at the requisite flow rate (approximately 3000 gpm). Modifications to install such piping require major construction and are ultimately accompanied by an additional contribution to system unreliability and/or risk.

Part flow at code frequency

Part flow recirculation capability vis-a-vis installed recirculation piping and valves is available. The current Technical Specifications, however, preclude reactor operation at recirculation sump levels sufficient to permit Recirculation pump operation. Reactor operation with recirculation sump level below prescribed limits is necessary to maintain margin to the post-LOCA containment flooding level at which safety related equipment not designed or intended for submergence would become submerged. As such, a Technical Specification change would be required to permit such testing during normal reactor operation. Notwithstanding a Technical Specification change, a source of borated water of the proper concentration to fill the recirculation sump would be required as well as a method of pumping the water out of containment after testing is completed. Various methods for obtaining borated water of the proper

concentration can be postulated; however, each of these would require manual operations inside containment. No means are available for directly pumping water from the recirculation sump out of containment. Therefore a portable pump and associated hosing would be required to pump water from the recirculation sump to the containment sump where it could then be pumped out of containment to waste hold up tanks. If testing were performed on a quarterly basis as required by code, approximately 48,000 gallons of additional radwaste per year would require processing. The additional personnel exposure associated with entries into containment during power operation to facilitate filling and draining the sump, making valve line-ups before and after testing, obtaining test data and processing large volumes of radwaste would be considerable, and we believe, inconsistent with ALARA guidelines. Finally, we believe that entries to containment during power operation for purposes other than visual observation or inspection renders the plant vulnerable to test or other human error with potential challenges to safety systems a possible result.

In addition to the considerations addressed above, we have considered spin testing at code frequency in conjunction with full code parameter tests at refuelings. As discussed above, the manufacturer recommends against running these pumps dry; therefore, spin testing would again require numerous incontainment manual operations directed at filling and draining the sump. There are no provisions on these pumps that would facilitate the installation of bearing water lube lines. We have further considered rotating the pump shaft manually at code frequency and concluded that any benefits to be derived from such an operation would be minimal since the pump impellers are not accessible for visual observation and no assurance of impeller rotation could be gained.

Finally, the subject of sump cleanliness is relevant. A detailed evaluation of this matter is contained in Consolidated Edison's (O'Toole) June 10, 1980, letter to the NRC (Denton) which provided our response to the 120 day requirements contained in the NRC's Confirmatory Order of February 11, 1980. Specifically, our response to item E.1.a of the order demonstrates that blockage is not likely to occur and that even if postulated, with circulation pump sump completely blocked and flow to the other sump reduced by 50%, sufficient post-LOCA recirculation flow would continue via a single operating RHR pump.

R-R 1 (continued)

Based on the substantial redundancy available, the fact that the backup low head injection/recirculation (RHR) pumps will be tested at the appropriate frequency, and the hardships involved in testing the Recirculation pumps at any time other than refuelings, we believe that no substantial safety benefit will be derived from testing at code frequency.

Alternative Testing:

Testing of these pumps will be performed during refueling shutdowns. This is consistent with present Technical Specification requirements for recirculation pump surveillance testing.

RELIEF REQUEST BASIS

Relief Request: 02

Pumps:

Safety Injection Pumps 21, 22, and 23  
Auxiliary Boiler Feedwater Pumps 21, 22, and 23

RHR Pump 21 and 22, Containment Spray Pumps 21 and 22,  
Service Water Pumps 21-26

Test Requirement: (IWP-3400 [a])

An inservice test shall be run on each pump, approximately each quarter during normal plant operation. It is recommended that this test frequency be maintained during shutdown periods where this can reasonably be accomplished, although this is not mandatory. If it is not tested during plant shutdown, the pump shall be tested within one week after plant is returned to normal operation.

Relief is requested from testing the pumps within one week after the plant is returned to normal operation, if not tested during plant shutdown. It is proposed that full flow tests performed during refuelings serve in lieu of Section XI required recirculation flow tests as credit toward maintaining the test schedule during refuelings.

Basis for Relief:

Present plant Technical Specifications and related commitments require full flow testing of the safety injection and auxiliary boiler feedwater pumps prior to start-up following each reactor refueling. Optionally, full flow tests may be performed on the other pumps listed at refuelings.

These full flow tests differ from the Section XI required tests of these pumps which are performed under minimum flow conditions using recirculation loops. Full flow tests are maximum capability tests and serve to verify pump operability at conditions closely approximating those for which the pumps are designed. It is intended that these full flow tests serve in lieu of the Section XI required recirculation flow tests during refuelings. Subsequent recirculation flow tests will commence three months (+/- 25%) from the corresponding full flow test.

Alternative Testing:

Upon resumption of power operation these pumps will be tested quarterly in the miniflow mode with miniflow reference values; commencing within three months (+/- 25%) of the corresponding full flow test. If for any reason, a full flow test is not performed during any given refueling, a miniflow test will be performed during that refueling or within one week after plant is returned to normal operation.

RELIEF REQUEST BASIS

Relief Request: 03

Pumps:

Safety Injection Pumps 21, 22, and 23  
Residual Heat Removal Pumps 21 and 22  
Containment Spray Pumps 21 and 22  
Auxiliary Component Cooling Pumps 21 and 22  
Auxiliary Boiler Feedwater System Pumps 21, 22, and 23  
Component Cooling Pumps 21, 22 and 23  
Boric Acid Transfer Pumps 21 and 22  
Charging Pumps 21, 22 and 23  
SI Pumps 21, 22, and 23 CCW Circulating Pumps

Test Requirement: (IWP-3500 [b])

When measurement of bearing temperature is required, each pump shall be run until the bearing temperatures (IWP-4310) stabilize, and then the quantities specified shall be measured or observed and recorded. A bearing temperature shall be considered stable when three successive readings taken at ten minute intervals do not vary by more than 3%.

Relief is requested from the requirement of IWP-3500 (b) which establishes bearing temperature as stable when three successive readings taken at ten minute intervals do not vary by more than 3%.

Basis for Relief:

Experience indicates bearing temperature to be sufficiently stabilized after fifteen minutes of pump operation. Furthermore, pump operating time for purposes of testing is severely limited by potential pump overheating under the minimum flow condition dictated by the test circuit.

Alternative Testing:

For all pumps, bearing temperature will be measured once after fifteen minutes of pump operation on a yearly schedule.

RELIEF REQUEST BASIS

Relief Request: 04

Pumps:

Residual Heat Removal Pumps 21 and 22  
Auxiliary Component Cooling Pumps 21 and 22  
Service Water Pumps 21, 22, 23, 24, 25, and 26  
Recirculation Pumps 21 and 22  
Fuel Oil Transfer Pumps 21, 22, and 23  
Boric Acid Transfer Pumps 21 and 22

Test Requirement: Table IWP-3100-1

Proper lubricant level or pressure shall be observed.

Basis for Relief:

The design of these pumps does not incorporate independent lubrication systems having measurable or observable characteristics. Lubrication is either by sealed grease type bearings or pumped fluid.

The RHR, Service Water, Recirculation, Fuel Oil Transfer and Boric Acid Transfer pumps have bearings lubricated by pumped fluid while the Auxiliary Component Cooling pumps are equipped with bearings that are grease lubricated. For these reasons checking the lubricant level or pressure does not apply.

Alternative Testing: None.

RELIEF REQUEST BASIS

Relief Request: 05

Pumps:

Service Water Pumps 21, 22, 23, 24, 25, and 26

Test Requirements: (IWP-3100)

"In variable or fixed resistance systems the test quantities shown in table IWP-3100-1 shall then be measured or observed as directed in this Subsection. Each measured test quantity shall then be compared to the reference value of the same quantity."

Relief is requested from the requirements of IWP-3100 with respect to obtaining bearing temperature measurements for comparison with referenced limits.

Basis for Relief:

These pumps are of the semi-submerged vertical centrifugal type. Except for the uppermost bearing, all other pump shaft bearings are submerged. Furthermore all pump shaft bearings (including the uppermost bearing) are enclosed within a cylindrical pipe type housing with no access provisions available to permit direct contact bearing temperature measurements. Since the pump bearings are either submerged or exposed to outdoor ambient conditions, bearing temperatures are subject to relatively large seasonal variations, rendering any comparison with reference bearing temperatures of little practical value. Vibration measurements will provide singularly reliable evidence of pump mechanical condition independent of bearing temperature measurement. These are journal bearings lubricated by pumped fluid and as such were never intended to have temperature measurements taken.

Alternative Testing: None

RELIEF REQUEST BASIS

Relief Request: 06

Pumps:

Recirculation Pumps 21 and 22

Test Requirements: (IWP-3100)

"In variable or fixed resistance systems the test quantities shown in table IWP-3100-1 shall then be measured or observed as directed in this Subsection. Each measured test quantity shall then be compared to the reference value of the same quantity."

Relief is requested from the requirements of IWP-3100 with respect to obtaining bearing temperature measurements for comparison with referenced limits.

Basis for Relief:

These pumps are of the semi-submerged vertical centrifugal type. Except for the uppermost bearing, all other pump shaft bearings are submerged. Furthermore all pump shaft bearings (including the uppermost bearing) are cooled by the pumped fluid with no access provisions available to permit direct contact bearing temperature measurements. Since the pump bearings are cooled by the pumped fluid, bearing temperatures are subject to variations due to pump water temperatures, rendering any comparison with reference bearing temperatures of little practical value. Vibration measurements will provide singularly reliable evidence of pump mechanical condition independent of bearing temperature measurement. These journal bearings lubricated by pumped fluid were never intended to have temperature measurements taken.

Alternative Testing: None

RELIEF REQUEST BASIS

Relief Request: 07

Pumps:

Fuel Oil Transfer Pumps 21, 22, and 23

Test Requirements: (IWP-3100)

"The resistance of the system shall be varied until either the measured differential pressure or the measured flow rate equals the corresponding reference value. The test quantities shown in table IWP-3100-1 shall then be measured or observed and recorded as directed in this Subsection. Each measured test quantity shall then be compared to the reference value of the same quantity."

Relief is requested from the requirements of IWP-3100 with respect to obtaining bearing temperature and vibration measurements for comparison with referenced limits.

Basis for Relief:

The fuel oil transfer pumps are submerged within the fuel oil storage tanks precluding direct access to the pump bearings for vibration and bearing temperature measurements.

Alternative Testing:

A best effort will be made to obtain vibration measurements off of the pump motor housing. This information is not expected to be repeatable. However an attempt will be made to trend the data.

RELIEF REQUEST BASIS

Relief Request: 08

Pumps:

Charging Pumps 21, 22, and 23

Test Requirements: IWP-3100

"An inservice test shall be conducted with the pump operating at nominal motor nameplate speed for constant speed drives and at a speed adjusted to the reference speed for variable speed drives. The resistance of the system shall then be varied until either the measured differential pressure or the measured flow rate equals the corresponding reference value. . . . Each measured test quantity shall then be compared with the reference value of the same quantity. Any deviations determined shall be compared with the limits given in Table IWP-3100-2 and the specified corrective action taken. . . ."

Basis for Relief:

The charging pumps are positive displacement, 98 gpm design flow rate variable speed pumps, employed in a variable resistance system. They serve to maintain chemistry control, provide reactor coolant pump seal injection flow and reactor coolant pump lower radial bearing cooling flow. They also provide a means of reactivity control via boron addition.

With regard to the emergency boration function the Chemical and Volume Control System Malfunction resulting in dilution, as analyzed in the FSAR, is relevant. Three cases are analyzed including dilution during refueling, dilution during startup and dilution at power. The analysis concludes that because of the procedures involved in the dilution process, an erroneous dilution is considered incredible. Nevertheless, if an unintentional dilution of boron in the reactor coolant does occur, numerous alarms and indications are available to alert the operator to the condition. The maximum reactivity addition due to dilution is slow enough to allow the operator to determine the cause of the addition and take corrective action before excessive shutdown margin is lost. Since there is only a single, common source of reactor makeup water to the reactor makeup water system; corrective action can be readily accomplished by isolating this single source, thereby terminating the dilution. Thus emergency boration capability, is not required to mitigate a dilution event.

Should the operator wish to maintain the plant in a shutdown condition following a dilution event, he may reborate using anyone of the three boration paths available to him.

Since the safety analyses in the FSAR did not take credit for the operation of the charging pumps, charging pumps are not required to mitigate an accident. However, it is highly desirable to be able to maintain reactor coolant pump (RCP) seal water supply as well as to cope with small primary system leaks without actuating safeguards equipment. The former requires 32 gpm while the latter is dependent on the break size and location. A 3/8" (equivalent diameter hole), cold leg break (with FL/D = 0) has been established as the maximum size for which it would be both desirable, and reasonable, to mitigate without safety injection initiation. Total charging flow of 130 gpm has been calculated as permitting the RCS to reach equilibrium pressure above the low pressure reactor trip setpoint (1800 psig) for such a break. Since the Technical Specification permits operation with two charging pumps available, 130 gpm results in 64 gpm per charging pump. Allowing an additional 10 gpm for conservatism results in the 75 gpm acceptance criteria.

There are no instrumented bypass loops available to facilitate quarterly testing of these pumps. The normal flow path precludes adjusting system resistance to a reference value in subsequent quarterly tests due to the demands of the reactor coolant pump seals and the normal pressure variations of the reactor coolant system. As such, no comparison to reference values can be made.

#### Alternative Testing:

The parameters identified in the table will be measured quarterly and trended. A minimum operability criteria of 75 gpm per pump (nominal full flow) has been established. Experience with data trending has permitted synthesizing alert and action ranges for these parameters. These ranges are wider than specified in Table IWP-3100-2 as permitted by IWP-3210. It should be noted that charging pump service life between rebuilding is about 2000 hours, therefore a given pump will not likely experience more than two consecutive IST program pump test before being rebuilt. The pump decreasing capacity is due to continuous degradation of the plunger packing.

RELIEF REQUEST BASIS

Relief Request: 09

Pumps:

Fuel Oil Transfer Pumps 21, 22 and 23

Test Requirements: (IWP-3100-1)

"The resistance of the system shall be varied until either the measured differential pressure or the measured flow rate equals the corresponding reference value. The test quantities shown in table IWP-3100-1 shall then be measured or observed and recorded as directed in this Subsection. Each measured test quantity shall then be compared to the reference value of the same quantity."

Relief is requested from the requirements of IWP-3100 with respect to varying system resistance and measuring flow rate.

Basis for Relief:

The tests circuits employed for quarterly testing of these pumps do not incorporate flow measurement instrumentation. Testing of these pumps will be accomplished with all valves in the flow path in the full open position, thereby system resistance will be fixed and test results repeatable. Acceptance criteria will be predicated on obtaining acceptable head values at the design minimum flow condition.

By using the same test circuit, aligned in the same manner from test to test, system resistance is effectively fixed. Pump degradation is readily observed by trending delta-p across the pump. Since delta-p varies as the flow squared ( $\Delta p = KQ^2$ ), changes in  $\Delta p$  are an earlier indicator of pump degradation than are changes in flow. Although flow cannot be recorded and trended, the test procedure proposed for these pumps satisfies the intent of the code, which is to identify changes in performance. These procedures together with alert and action range trending will assure that information sufficient to assess pump condition and the need for repair are readily available.

Alternative Testing:

The fuel oil transfer pumps will be tested in a fixed resistance system using head as the indicator of hydraulic performance in lieu of varying system resistance to a specified flow and then measuring head.

RELIEF REQUEST BASIS

Relief Request: 10

Pumps: All

Test Requirements: IWP-4120

Accuracy  $\pm$  2%, Range - no more than three times the  
reference value

Basis for Relief:

Indian Point Unit No. 2 employs pressure instrumentation accurate to 1/4%. Ranges for these instruments are up to eight times the reference value. The higher accuracy of these instruments effectively off-sets the wider ranges that are permitted under IWP-4120. As Indian Point Unit No. 2 was designed and constructed prior to codification of Section XI, instrumentation upgrading to meet Section XI provisions is not required by regulation. Experience has demonstrated that existing instrumentation is adequate for the detection of changes desired by the code.

Alternative Testing: None required

RELIEF REQUEST BASIS

Relief Request: 11

Pumps: Safety Injection Pump CCW Circulating Pumps 21, 22, and 23

Test Requirements: (IWP-3100)

"The test quantities shown in Table IWP-3100-1 shall then be measured or observed and recorded as directed in this Subsection."

Relief is requested from the requirements of IWP-3100 with respect to measuring inlet and outlet pressure.

Basis for Relief:

The subject shaft driven pumps were installed without provision for measuring inlet and outlet pressure in proximity to the pump. Our initial testing of the subject pumps (first quarter, 1989) revealed that the nearest gauge locations were inadequate for obtaining meaningful information required for pump differential pressure.

Alternate Testing:

The subject pumps will be tested using flow as the indicator of Hydraulic Performance and ensuring that the measured flow is above the Engineering specified minimum acceptable value.

NOTES

- (a) These pumps are directly coupled to constant speed induction motors. Consistent with IWP-4400, rotative speed need not be measured.
- (b) [Deleted]
- (c) These pumps are of the positive displacement type. Differential pressure across a positive displacement pump serves no function in determining pump degradation.
- (d) There is no instrumentation available for the measurement of inlet pressure. Inlet pressure will be calculated from elevation head, tank level and any gas overpressure, as may be applicable.
- (e) These pumps are submerged within the fuel oil storage tanks. Inlet pressure will be calculated from tank level.
- (f) These pumps are wet-pit pumps submerged in the river water. Inlet pressure will be calculated from river water level.
- (g) Deleted.
- (h) These pumps will be tested each refueling outage without CCW system operating to ensure proper cooling of the Recirculation pumps can be accomplished during the Recirculation phase when the CCW pumps are not operating. See Safety System Functional Inspection Report No. 50-247/88-200, observation 247/88-200-22 and responses.

4

Enclosure 3

Inservice Testing Program Summary for Valves

Indian Point Unit No. 2

January 1984

Revision 4  
December, 1990

ENCLOSURE 3

LIST OF SUBJECTS AND EFFECTIVE PAGES

<u>SUBJECT</u>	<u>NUMBER OF PAGES</u>
Inservice Test Program Summary of Valves (Discussion)	3
Table Legend	2
Valve Test Summary	*
Relief Request/System Reference	1
Valve Relief Requests	see next page

\* The Summary Table is page numbered as a computer printout as indicated on the table pages.

Effective Pages - continued

Valve Relief Requests

<u>RELIEF</u>	<u>#</u>	<u>PAGES</u>									
001	1		024	1		047	1		070		(Del)
002	1		025	1		048	1		071	1	
003	1		026	1		049	1		072		(NU)
004	1		027	1		050	1		073		(NU)
005	1		028	2		051	1		074	1	
006	1		029	2		052	1		075	1	
007	1		030	1		053	1		076	1	
008	1		031	1		054	1		077	1	
009	1		032	1		055	1		078		(NU)
010	1		033	1		056	1		079	1	
011	1		034	1		057	1		080		(NU)
012	1		035	1		058	1		081	1	
013	1		036	1		059	1		082		(NU)
014	1		037	1		060	1		083	1	
015	1		038	1		061	1		A	3	
016	1		039	1		062	1		B	1	
017	1		040	1		063	1		C	2	
018	1		041	1		064	1		D	2	
019	1		042	1		065	1		E	1	
020	1		043	1		066	1		F	1	
021	1		044	1		067	1		G	1	
022	1		045	1		068	1				
023	1		046	1		069	1				

Del = Relief Request Deleted

NU = Relief Request Number not used

Indian Point Nuclear Generating Unit No. 2

Inservice Test Program Summary of Valves

0 VALVES SUBJECT TO THE TESTING REQUIREMENTS OF ASME B&PV CODE SECTION XI, ARTICLE IWV

In accordance with IWV-1100 the valves subject to these testing requirements include those valves which are required to perform a specific function in shutting down a reactor to the cold shutdown condition or in mitigating the consequences of an accident. Such valves are identified on the following tabulation.

2.0 PROGRAM DESCRIPTION

The following tabulation lists the valve identification number by the system (and drawing number) of which it is a part, the component quality group if applicable, valve category per IWV-2200, valve size and type, actuator type, failure mode, remote position indication and normal valve position. The type of testing required, specific relief requests, testing alternatives and test frequency are identified as well. Request for relief numbers have been noted, in the appropriate columns by either an alpha or numeric designator. An alpha designator refers to a generic relief request having applicability to more than one valve or valve set. A numeric designator refers to a relief request unique to a specific valve or valve set. Because generic relief requests will generally apply to many valves, the alpha designator will not always appear in the relief request column of the tabulation. Instead the valves for which that generic request is applicable are identified with the relief request only. A legend identifying the symbols appearing in the tabulation has been provided. The detailed description of the requests for relief, containing the basis for relief and alternate testing follow the tabulation.

3.0 VALVE TEST FREQUENCY

Quarterly

All valves required to be tested quarterly shall be aggregated and tested within each 92-day period of unit on-line operation. The maximum allowable extension to the quarterly test interval shall not exceed 25%. Individual valves may be tested at any time within each 92-day period of unit on-line operation to permit testing to coincide with requisite plant conditions and schedule constraints. Each should be stroked at approximately equal intervals of unit on-line operation. Valves required to be stroked during unit

on-line operation need not be stroked during periods of plant off-line operation. In such instances the test schedule shall be resumed at the point it was interrupted following the commencement of plant on-line operation.

#### Cold Shutdown

The inservice valve testing program for valves required to be tested at cold shutdowns must commence no later than 48 hours after each cold shutdown and shall continue until complete or the plant is ready to commence start-up. Completion of all inservice valve testing for valves required to be tested at cold shutdown is not a prerequisite to plant start-up. Any testing not completed at one cold shutdown should be performed during subsequent cold shutdowns. To permit cold shutdown testing of valves to proceed in an orderly manner, the number of valves to be tested at each cold shutdown should be determined as follows: the estimated duration of the outage divided by 92 days times the number of valves required to be tested at cold shutdown equals the target number of valves to be tested. At each successive cold shutdown the next group of valves should be tested until all valves in the program have been tested, at which time the cold shutdown valve testing program shall be reinitialized.

#### Refuelings

Inservice valve testing of valves required to be tested at refuelings shall be tested at each refueling not to exceed intervals greater than 2 years.

#### o DIRECT OBSERVATION

The requirement for direct observation of valve position indication has not been incorporated in the following tables. The requirement will be satisfied at two year intervals.

#### o VALVES SUBJECT TO LEAK RATE TESTING

Valves subject to leak rate testing include containment isolation valves and pressure isolation valves. Containment isolation valves are those valves identified in the Indian Point Unit No. 2 Technical Specifications which have been determined as subject to the requirements of 10CFR50 Appendix J. Pressure isolation valves are those valves which form a boundary of interface between the higher pressure reactor coolant system and a connected system designed for lower maximum pressures. Included in this category are valves forming the boundary between the reactor coolant system and the lower pressure residual heat removal and safety injection systems. Specifically excluded are; valves forming the interface between 1) the Reactor Coolant System (RCS) and Chemical and Volume Control System (CVCS); 2) the RCS loop drain valves to the waste disposal system and 3) valves separating the RCS from the Sampling System (SS).

The CVCS and SS piping and valves are designed for the same pressures as the RCS, hence the boundary valves separating these system from the RCS do not form a high pressure/low pressure interface. In addition, the sample lines are 3/8 inch diameter, hence gross failure of a sample line or sample valve can be accommodated by normal operating methods without the need for safety injection actuation. The RCS loop drain valves inside containment are each fitted with two normally closed series manual isolation valves forming the boundary between the RCS and lines leading to the Reactor Coolant Drain Tank in the Waste Disposal System. Any leakage past the loop drain valves will collect in the Reactor Coolant Drain Tank.

Periodic water inventory balances of Reactor Coolant System inventory and leakage closed systems serve to quantify any leakage past the loop drain valves. Technical Specifications limit identified RCS leakage to 10 gpm during power operation. Thus, these operating restrictions serve in lieu of the code required leak rate test for these valves.

Containment isolation valves are leak rate tested in accordance with the requirements of 10CFR50 Appendix J. Pressure isolation valve are tested in accordance with ASME Section XI requirements, at function differential pressure or at reduced pressure adjusted to function differential pressure. There are no valves that serve both containment isolation and pressure isolation functions of Indian Point Unit No. 2.

TABLE LEGEND

KEY TO TEST REQUIREMENTS

- - Category A valve leak rate test per Section XI, Article IWV-3420.
- S - Category A and B exercising test per Section XI, Article IWV-3410.
- SC - Category C exercising test per Section XI, Article IWV-3520.
- T - Category A and B stroke time measurement test per Section XI, Article IWV-3413.
- F - Category A and B valve fail safe tests per Section XI, Article IWV-3415.
- R - Category C (safety/relief) valve test per Section XI, Article IWV-3510.
- BT - Bench Test relief and safety valves.

Note: There are no Category D valves at Indian Point 2.

KEY TO TESTING ALTERNATIVES

- 1 - Leak test per Appendix J.
- - Full-stroke exercise during refueling outages.
- 3 - Full-stroke exercise during cold shutdowns.
- 4 - Part-stroke tested quarterly during RHR SI (etc.) pump test.
- 5 - Part-stroke exercise during cold shutdowns.
- 6 - Part-stroke exercise during refueling outages.
- 7 - In accordance with IWV-3510 at refuelings.
- 8 - In accordance with IWV-3420 at refuelings.
- 9 - During containment spray nozzle air test--every 5 years.
- 10 - Full-stroke exercise prior startup following cold shutdown.
- 11 - Sample Disassembly/Inspection

KEY TO TESTING FREQUENCY

- Q - Quarterly.
- S - Cold Shutdowns.
- R - Refuelings.
- R1 - Refuelings as per IWV-3510-1.
- R2 - Refuelings as per Generic Letter 89-04, Attachment 1, Item 2.

KEY TO NORMAL POSITION

- O - Open
- C - Closed
- V - Variable - depends on system lineup (i.e., open or closed)
- T - Throttled

Abbreviations

- |                            |                                |
|----------------------------|--------------------------------|
| SC - Stop Check Valve      | M - Manual Valve               |
| CK - Check Valve           | SA - Self Actuating Valve      |
| GA - Gate Valve            | MO - Motor Operated Valve      |
| GL - Globe Valve           | AO - Air Operated Valve        |
| RV - Relief Valve          | SO - Solenoid Operated Valve   |
| BV - Butterfly Valve       | AN - Angle Valve               |
| T - Throttled Valve        | SP - Spring Loaded Check Valve |
| DIA - Diaphragm Valve      | PCV - Pressure Control Valve   |
| NE - Needle Valve          | EH - Electro-hydraulic Valve   |
| BL - Equalizing Ball Valve |                                |
| O - Open                   | AI - As Is                     |
| LO - Locked Open           | (Note: All MOVs fail as is     |
| C - Closed                 | unless otherwise stated)       |
| LC - Locked Closed         | FC - Fail Closed               |
|                            | FO - Fail Open                 |

Key to Relief Requests

1. Letters refer to a general relief request.
2. Numbers refer to a specific relief request.

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
1406	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1410	IVSW	2746		B	3/8	GL	SO	C	FO	Y	S T F	D		Q Q Q	
REMARKS:															
1413	IVSW	2746		B	3/8	GL	SO	C	FO	Y	S T F	D		Q Q Q	
REMARKS:															
1456	IVSW	2746		C	3/4	CK	SA	O			SC	037	2	R	
REMARKS:															
1470	IVSW	2746		C	1	RE	SA	C	O	N	R			R1	4
REMARKS:															
1471	IVSW	2746		C	.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
1472	IVSW	2746		C	.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
1473	IVSW	2746		C	.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
1474	IVSW	2746		C	.5	RE	SA	C	O	N	R			R1	4
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
1475	IVSW	2746		C	.37	RE	SA	C	O	N	R			R1	4
REMARKS:															
1500	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1501	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1502	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1503	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1504	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1505	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1506	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1507	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															

INDIAN POINT UNIT 2 & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
1508	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1509	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1510	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1511	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1512	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1513	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1514	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1515	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1516	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
1517	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1518	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1519	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1520	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1521	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1522	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1523	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1524	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1525	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

PAGE 3

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
1526	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1527	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1528	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1529	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1530	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1531	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1532	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1534	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1535	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
1536	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1537	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1538	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1539	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1540	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1541	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1542	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1543	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1545	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS.IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
1546	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1547	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1548	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1549	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1550	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
1616	GAS	2719	C	AC	1	CK	SA	O			L	A	1	R	
REMARKS: A-PASSIVE															
1649	GAS	2723		C	1	RE	SA	C	O	N	R			R1	4
REMARKS:															
1702	WDS	2719	C	A	3	DIA	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
1705	WDS	2719	C	A	3	DIA	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
1723	WDS	2719	C	A	2	DIA	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
1728	WDS	2719	C	A	2	DIA	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
1786	WDS	2719	C	A	1	DIA	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
1787	WDS	2719	C	A	1	DIA	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
1788	WDS	2719	C	A	1	DIA	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
1789	WDS	2719	C	A	1	DIA	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
1802A	SIS	235296	B	B	10	GA	MO	C	AI	Y	S T	064 064	2 2	R R	
REMARKS:															
1802B	SIS	235296	B	B	10	GA	MO	C	AI	Y	S T	064 064	2 2	R R	
REMARKS:															
1810	SIS	2735	B	B	3	GA	MO	LO	AI	Y	S T	063 063	3 3	CS CS	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
1814A	SIS	235296		A	3/4	GL	M	LO	AI	N	L			R	
REMARKS: A-PASSIVE															
1814B	SIS	235296		A	3/4	GL	M	LO	AI	N	L			R	
REMARKS: A-PASSIVE															
1814C	SIS	235296		A	3/4	GL	M	LO	AI	N	L			R	
REMARKS: A-PASSIVE															
1816	GAS	2723		C	1	RE	SA	C	O	N	R			R1	4
REMARKS:															
1836	RHR	2720	B	C	2	RE	SA	C	O	N	R			R1	4
REMARKS:															
1838A	CSS	2735	B	C	3	CK	SA	C	NA	N	SC			Q	
REMARKS:															
1838B	CSS	2735	B	C	3	CK	SA	C	NA	N	SC			Q	
REMARKS:															
1870	RHR	227781	B	A	3	GL	MO	LO	AI	Y	S T L	006 006 A	3 3 1	CS CS R	
REMARKS:															
1878	HR	2727		C	1	CK	SA	C	AI		SC			R	
REMARKS: DURING SYSTEM TEST															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
1879A	HR	2727		C	3/4	CK	SA	C			SC	032	3	CS	
REMARKS:															
1879B	HR	2727		C	3/4	CK	SA	C			SC	032	3	CS	
REMARKS:															
1880A	HR	2727		C	3/4	CK	SA	C			SC	032	3	CS	
REMARKS:															
1880B	HR	2727		C	3/4	CK	SA	C			SC	032	3	CS	
REMARKS:															
1881A	HR	2727		C	3/4	CK	SA	C			SC	033	3	CS	
REMARKS:															
1881C	HR	2727		C	3/4	CK	SA	C			SC	033	3	CS	
REMARKS:															
1881D	HR	2727		C	3/4	CK	SA	C			SC	033	3	CS	
REMARKS:															
1884	HR	2727	B	C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															
200A	RCS	208168	A	B	2	GL	AO	C	FC	Y	S T F			Q Q Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
200B	RCS	208168	A	B	2	GL	AO	O	FC	Y	S T F			Q Q Q	
REMARKS:															
200C	RCS	208168	A	B	2	GL	AO	O	FC	Y	S T F			Q Q Q	
REMARKS:															
201	CVCS	2736	B	A	2	GA	AO	O	FC	Y	S T L F	018 018 A 018	3 3 1 3	CS CS R CS	
REMARKS:															
202	CVCS	2736	B	A	2	GL	AO	O	FC	Y	S T L F	018 018 A 018	3 3 1 3	CS CS R CS	
REMARKS:															
203	CVCS	208168	B	C	2	RE	SA	C	O	N	R			R1	4
REMARKS:															
204A	RCS	208168	A	B	3	GL	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															
204B	RCS	208168	A	B	3	GL	AO	O	FO	Y	S T F			Q Q Q	
REMARKS:															
205	CVCS	2736	B	A	3	GA	MO	O	AI	Y	S T L	019 019 A	3 3 1	CS CS R	
REMARKS:															
210A	RCS	208168	A	C	3	CK	SA	C			SC			Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
210B	RCS	208168	A	C	3	CK	SA	O			SC			Q	
REMARKS:															
218	CVCS	208168	B	C	3	RE	SA	C	O	N	R			R1	4
REMARKS:															
222	CVCS	2736	B	A	4	GA	MO	O	AI	Y	S T L	020 020 A	3 3 1	CS CS R	
REMARKS:															
226	CVCS	2736	B	A	3	GL	MO	O	AI	Y	S T L	019 019 A	3 3 1	CS CS R	
REMARKS:															
227	CVCS	2736	B	A	3	GL	MO	C	AI	Y	L	A	1	R	
REMARKS: A-PASSIVE															
231	CVCS	2736	B	C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															
234	CVCS	2736	B	C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															
237	CVCS	2736	B	C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															
250A	CVCS	2736	B	A	2	GL	MO	O	AI	Y	S T L	021 021 A	3 3 1	CS CS R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
250B	CVCS	2736	B	A	2	GL	MO	O	AI	Y	S T L	021 021 A	3 3 1	CS CS R	
REMARKS:															
250C	CVCS	2736	B	A	2	GL	MO	O	AI	Y	S T L	021 021 A	3 3 1	CS CS R	
REMARKS:															
250D	CVCS	2736	B	A	2	GL	MO	O	AI	Y	S T L	021 021 A	3 3 1	CS CS R	
REMARKS:															
263	CVCS	2736	B	C	2	RE	SA	C	O	N	R			R1	4
REMARKS:															
264	CVCS	2736	B	C	2	RE	SA	C	O	N	R			R1	4
REMARKS:															
290	CVCS	2736	B	C	4	CK	SA	C			SC	025	2	CS	
REMARKS:															
332	CVCS	2736	B	C	2	CK	SA	C			SC	026	3	CS	
REMARKS:															
333	CVCS	2736	B	B	2	GL	MO	C	AI	Y	S T	022 022	3 3	CS CS	
REMARKS:															
362A	CVCS	2736	C	C	2	CK	SA	C			SC			Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
362B	CVCS	2736	C	C	2	CK	SA	C			SC			Q	
REMARKS:															
374	RCS	208168	A	C	3	CK	SA	O			SC			Q	
REMARKS:															
4000	CVCS	2736	B	C	3	CK	SA	O			SC			Q	
REMARKS:															
4001	CVCS	2736	B	C	3	CK	SA	O			SC			Q	
REMARKS:															
4002	CVCS	2736	B	C	3	CK	SA	O			SC			Q	
REMARKS:															
4003	CVCS	2736	B	C	3	CK	SA	O			SC			Q	
REMARKS:															
4004	CVCS	2736	B	C	3	CK	SA	O			SC			Q	
REMARKS:															
4005	CVCS	2736	B	C	3	CK	SA	O			SC			Q	
REMARKS:															
4058	CVCS	2736	B	C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
4105	GAS	235306		C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															
4106	GAS	235306		C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															
4107	GAS	235306		C	.75	CK	SA	C	O	N	SC	071	3	CS	4
REMARKS:															
4108	GAS	235306		C	.75	CK	SA	C	O	N	SC	071	3	CS	4
REMARKS:															
4136	RCS	2738	C	A	3/4	DIA	M	C		N	L	A	1	R	
REMARKS: A-PASSIVE															
4312	GAS	235296	B	AC	1	CK	SA	C	NA	N	L	A	1	R	
REMARKS: AC-PASSIVE															
4399	PSS	227178		A	3/4	GL	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
4924	CVCS	2736	B	C	2	CK	SA	C			SC	027	3	CS	
REMARKS:															
4925	CVCS	2736	B	A	1	GA	MO	O	AI	Y	S T L	021 021 A	3 3 1	CS CS R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
4926	CVCS	2736	B	A	1	GA	MO	O	AI	Y	S T L	021 021 A	3 3 1	CS CS R	
REMARKS:															
4927	CVCS	2736	B	A	1	GA	MO	O	AI	Y	S T L	021 021 A	3 3 1	CS CS R	
REMARKS:															
4928	CVCS	2736	B	A	1	GA	MO	O	AI	Y	S T L	021 021 A	3 3 1	CS CS R	
REMARKS:															
5132	PSS	227178		A	3/4	GL	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
518	RCS	2738	C	AC	3/4	CK	SA	C		N	L	A	1	R	
REMARKS: A-PASSIVE															
519	RCS	2738	C	A	3	DIA	AO	C	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
5220	SIS	2735	B	C	4	CK	SA	C	O	N	SC	059	2	R	4
REMARKS:															
535	RCS	2738	A	B	3	GA	MO	O	AI	Y	S S T T	046 046 046 046	3 3 3 3	Q CS Q CS	
REMARKS: SEE RELIEF REQUEST															
536	RCS	2738	A	B	3	GA	MO	O	AI	Y	S S T T	046 046 046 046	3 3 3 3	Q CS Q CS	
REMARKS: SEE RELIEF REQUEST															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
5459	WDS	2719	C	A	1	DIA	M	C			L	A	1	R	
REMARKS:															
548	RCS	2738	C	A	3/8	GL	AO	C	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
549	RCS	2738	C	A	3/8	GL	AO	C	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
552	RCS	2738	C	A	3/4	GL	SO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
5602	IVSW	2746		C	3/8	CK	SA	C			SC	037	2	R	
REMARKS:															
5624	IVSW	2746		C	.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
580A	RCS	2738	A	A	1/8	NE	M	LC		N	L	A	1	R	
REMARKS: A-PASSIVE															
580B	RCS	2738	A	A	1/8	NE	M	LC		N	L	A	1	R	
REMARKS: A-PASSIVE															
730	RCS	2720	A	A	14	GA	MO	C	AI	Y	S T L	009 009	3 3	CS CS R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
731	RCS	2720	A	A	14	GA	MO	C	AI	Y	S T L	009 009	3 3	CS CS R	
REMARKS:															
732	RHR	227781	B	A	14	GA	M	LC			L	A	1	R	
REMARKS: A-PASSIVE															
738A	RHR	227781	B	C	12	CK	SA	C			SC	007	3,4	CS	
REMARKS:															
738B	RHR	227781	B	C	12	CK	SA	C			SC	007	3,4	CS	
REMARKS:															
741A	RHR	2720	B	AC	12	CK	SA	C			SC L	003 A	3,4 1	CS R	
REMARKS:															
743	RHR	227781	B	A	3	GL	MO	LO	AI	Y	S T L	006 006 A	3 3 1	CS CS R	
REMARKS:															
744	RHR	227781	B	A	12	GA	MO	LO	AI	Y	S T L	002 002 A	2 2 1	R R R	
REMARKS:															
745A	RHR	2720	B	B	8	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
745B	RHR	2720	B	B	8	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
746	RHR	2720	B	B	8	GA	MO	C	AI	Y	S T	008 008	3 3	CS CS	
REMARKS:															
747	RHR	2720	B	B	8	GA	MO	C	AI	Y	S T	008 008	3 3	CS CS	
REMARKS:															
750A	CCW	227781	C	C	1	CK	SA	C			SC			Q	
REMARKS: DURING SI PUMP TEST BUT ONE AT A TIME															
750B	CCW	227781	C	C	1	CK	SA	C			SC			Q	
REMARKS: DURING SI PUMP TEST BUT ONE AT A TIME															
750C	CCW	227781	C	C	1	CK	SA	C			SC			Q	
REMARKS: DURING SI PUMP TEST BUT ONE AT A TIME															
755	CCW	227781	C	C	2	CK	SA	O			SC			Q	
REMARKS:															
755A	CCW	227781	C	C	3	CK	SA	C			SC			Q	
REMARKS:															
755B	CCW	227781	C	C	3	CK	SA	C			SC			Q	
REMARKS:															
761A	CCW	227781	C	C	10	CK	SA	O			SC			Q	
REMARKS: POSITION DURING OPERATION DEPENDS ON PUMP ALIGNMENT															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
761B	CCW	227781	C	C	10	CK	SA	O			SC			Q	
REMARKS: POSITION DURING OPERATION DEPENDS ON PUMP ALIGNMENT															
761C	CCW	227781	C	C	10	CK	SA	O			SC			Q	
REMARKS: POSITION DURING OPERATION DEPENDS ON PUMP ALIGNMENT															
769	CCW	227781	C	B	6	GA	MO	O	AI	Y	S T	005 005	3 3	CS CS	
REMARKS:															
770	CCW	2720	C	C	6	CK	SA	O	C	N	SC	075	11	R2	4
REMARKS:															
782	CCW	2720	C	C	3	RE	SA	C	O	N	R			R1	4
REMARKS:															
784	CCW	227781	C	A	6	GA	MO	O	AI	Y	S T L	001 001 A	3 3 1	CS CS R	
REMARKS:															
786	CCW	227781	C	B	6	GA	MO	O	AI	Y	S T	005 005	3 3	CS CS	
REMARKS:															
789	CCW	227781	C	B	6	GA	MO	O	AI	Y	S T	005 005	3 3	CS CS	
REMARKS:															
791	CCW	227781	C	A	3	DIA	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
793	CCW	227781	C	A	3	DIA	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
796	CCW	227781	C	A	3	DIA	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
797	CCW	227781	C	A	6	GA	MO	O	AI	Y	S T L	001 001 A	3 3 1	CS CS R	
REMARKS:															
798	CCW	227781	C	A	3	DIA	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
819A	CCW	2720	C	C	1.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
819B	CCW	2720	C	C	1.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
822A	CCW	2720	C	B	12	GA	MO	C	AI	Y	S T	004 004	3 3	CS CS	
REMARKS:															
822B	CCW	2720	C	B	12	GA	MO	C	AI	Y	S T	004 004	3 3	CS CS	
REMARKS:															
835	CCW	227781	C	C	3	RE	SA	C	O	N	R			R1	4
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
838A	RCS	235296	A	AC	6	CK	SA	C	NA	N	SC L	048	3	CS R	
REMARKS: WHEN RHR IS OPERATING															
838B	RCS	235296	A	AC	6	CK	SA	C	NA	N	SC L	048	3	CS R	
REMARKS: WHEN RHR IS OPERATING															
838C	RCS	235296	A	AC	6	CK	SA	C	NA	N	SC L	048	3	CS R	
REMARKS: WHEN RHR IS OPERATING															
838D	RCS	235296	A	AC	6	CK	SA	C	NA	N	SC L	048	3	CS R	
REMARKS: WHEN RHR IS OPERATING															
839B	RCS	235296	A	A	3/4	GL	AO	C	FC		L			R	
REMARKS: A-PASSIVE															
839D	RCS	235296	A	A	3/4	GL	AO	C	FC		L			R	
REMARKS: A-PASSIVE															
839F	RCS	235296	A	A	3/4	GL	AO	C	FC		L			R	
REMARKS: A-PASSIVE															
839H	RCS	235296	A	A	3/4	GL	AO	C	FC		L			R	
REMARKS: A-PASSIVE															
842	SIS	2735		B	2	GL	MO	LO	AT	Y	S T	052 052	3 3	CS CS	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
843	SIS	2735		B	2	GL	MO	LO	AI	Y	S T	052 052	3 3	CS CS	
REMARKS:															
847	SIS	2735	B	C	8	CK	SA	C	NA	N	SC	058	2,4	R	
REMARKS: PART STROKE QUARTERLY															
849A	SIS	2735	B	C	4	CK	SA	C	NA	N	SC	059	2	R	
REMARKS:															
849B	SIS	2735	B	C	4	CK	SA	C	NA	N	SC	059	2	R	
REMARKS:															
850A	SIS	2735	B	A	4	GA	MO	LO	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
850B	SIS	2735	B	A	4	GA	MO	LO	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
851A	SIS	2735	B	A	4	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
851B	SIS	2735	B	A	4	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
852A	SIS	2735	B	C	4	CK	SA	C	NA	N	SC	059	2	R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
852B	SIS	2735	B	C	4	CK	SA	C	NA	N	SC	059	2	R	
REMARKS:															
856A	SIS	235296	B	B	2	GA	MO	O	AI	Y	S T	051 051	3 3	CS CS	
REMARKS:															
856B	SIS	235296	B	B	2	GA	MO	LC	AI	Y	S T	050 050	3 3	CS CS	
REMARKS:															
856C	SIS	235296	B	B	2	GA	MO	O	AI	Y	S T	051 051	3 3	CS CS	
REMARKS:															
856D	SIS	235296	B	B	2	GA	MO	O	AI	Y	S T	051 051	3 3	CS CS	
REMARKS:															
856E	SIS	235296	B	B	2	GA	MO	O	AI	Y	S T	051 051	3 3	CS CS	
REMARKS:															
856F	SIS	235296	B	B	2	GA	MO	O	AI	Y	S T	050 050	3 3	CS CS	
REMARKS:															
857A	RCS	235296	A	AC	2	CK	SA	C	NA	N	SC L	053	2	R R	
REMARKS:															
857B	RCS	235296	A	AC	2	CK	SA	C	NA	N	SC L	053	2	R R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
857C	RCS	235296	A	AC	2	CK	SA	C	NA	N	SC L	053	2	R R	
REMARKS:															
857D	RCS	235296	A	AC	2	CK	SA	C	NA	N	SC L	053	2	R R	
REMARKS:															
857E	SIS	235296	B	C	2	CK	SA	C	NA	N	SC	055	2	R	
REMARKS:															
857F	RCS	235296	A	AC	2	CK	SA	C	NA	N	SC L	053	2	R R	
REMARKS:															
857G	RCS	235296	A	AC	2	CK	SA	C	NA	N	SC L	053	2	R R	
REMARKS:															
857H	RCS	235296	A	AC	2	CK	SA	C	NA	N	SC L	053	2	R R	
REMARKS:															
857J	RCS	235296	A	AC	2	CK	SA	C	NA	N	SC L	054	2	R R	
REMARKS:															
857K	RCS	235296	A	AC	2	CK	SA	C	NA	N	SC L	054	2	R R	
REMARKS:															
857L	SIS	235296	B	C	2	CK	SA	C	NA	N	SC	055	2	R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
857M	RCS	235296	A	AC	2	CK	SA	C	NA	N	SC L	053	2	R R	
REMARKS:															
859A	SIS	2735	B	A	3/4	GL	M	LC	AI	N	L	A	1	R	
REMARKS: A-PASSIVE															
859C	SIS	2735	B	A	3/4	GL	M	LC	AI	N	L	A	1	R	
REMARKS: A-PASSIVE															
85A	WCPS	5.2-27		AC		CK	SP				SC L	043 A	1 1	R R	
REMARKS:															
85B	WCPS	5.2-27		AC	CK	SP					SC L	043 A	1 1	R R	
REMARKS:															
85C	WCPS	5.2-27		A	BL	M					S L	044 A	1 1	R R	
REMARKS:															
85D	WCPS	5.2-27		A	BL	M					S L	044 A	1 1	R R	
REMARKS:															
863	GAS	235296	B	A	1	GL	AO	C	FC	Y	L	A	1	R	
REMARKS: A-PASSIVE															
866A	CSS	2735	B	B	B	GA	MO	C	AI	Y	S T			Q Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
866B	CSS	2735	B	B	8	GA	MO	C	AI	Y	S T			Q Q	
REMARKS:															
866C	CSS	2735	B	B	8	GA	MO	C	AI	Y	S T			Q Q	
REMARKS:															
866D	CSS	2735	B	B	8	GA	MO	C	AI	Y	S T			Q Q	
REMARKS:															
867A	CSS	2735	B	AC	8	CK	SA	C	NA	N	SC L	049 A	2 1	R R	
REMARKS:															
867B	CSS	2735	B	AC	8	CK	SA	C	NA	N	SC L	049 A	2 1	R R	
REMARKS:															
869A	CSS	2735	B	A	8	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
869B	CSS	2735	B	A	8	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
876A	CSS	2735	C	B	3	GA	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															
876B	CSS	2735	C	B	3	GA	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
878A	CSS	2735	B	A	3/4	GL	M	LC	AI	N	L	A	1	R	
REMARKS: A-PASSIVE															
879A	CSS	235296	B	C	2	CK	SA	C	NA	N	SC	061	11	R	
REMARKS:															
879B	CSS	235296	B	C	2	CK	SA	C	NA	N	SC	061	11	R	
REMARKS:															
880A	CSS	235296	B	B	2	GL	MO	C	AI	Y	S T	065 065	2 2	R R	
REMARKS:															
880B	CSS	235296	B	B	2	GL	MO	C	AI	Y	S T	065 065	2 2	R R	
REMARKS:															
880C	CSS	235296	B	B	2	GL	MO	C	AI	Y	S T	065 065	2 2	R R	
REMARKS:															
880D	CSS	235296	B	B	2	GL	MO	C	AI	Y	S T	065 065	2 2	R R	
REMARKS:															
880E	CSS	235296	B	B	2	GL	MO	C	AI	Y	S T	065 065	2 2	R R	
REMARKS:															
880F	CSS	235296	B	B	2	GL	MO	C	AI	Y	S T	065 065	2 2	R R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
880G	CSS	235296	B	B	2	GL	MO	C	AI	Y	S T	065 065	2 2	R R	
REMARKS:															
880H	CSS	235296	B	B	2	GL	MO	C	AI	Y	S T	065 065	2 2	R R	
REMARKS:															
880J	CSS	235296	B	B	2	GL	MO	C	AI	Y	S T	065 065	2 2	R R	
REMARKS:															
880K	CSS	235296	B	B	2	GL	MO	C	AI	Y	S T	065 065	2 2	R R	
REMARKS:															
881	SIS	2735	B	C	12	CK	SA	C	NA	N	SC	057	2	R	
REMARKS:															
882	SIS	2735	B	B	12	GA	MO	O	AI	Y	S T	062 062	3 3	CS CS	
REMARKS:															
884A	SIS	2735	B	C	3/4	CK	SA	C	NA	N	SC			Q	
REMARKS:															
884B	SIS	2735	B	C	3/4	CK	SA	C	NA	N	SC			Q	
REMARKS:															
884C	SIS	2735	B	C	3/4	CK	SA	C	NA	N	SC			Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
885A	SIS	2735	B	A	14	GA	MO	C	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
885B	SIS	2735	B	A	14	GA	MO	C	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
886A	SIS	235296	B	C	8	CK	SA	C	NA	N	SC	056	11	R	
REMARKS:															
886B	SIS	235296	B	C	8	CK	SA	C	NA	N	SC	056	11	R	
REMARKS:															
887A	SIS	2735	B	B	6	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
887B	SIS	2735	B	B	6	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
888A	SIS	2735		A	6	GA	MO	C	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
888B	SIS	2735		A	6	GA	MO	C	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
889A	RHR	235296	B	B	8	GA	MO	C	AI	Y	S T			Q Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS.IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
889B	RHR	235296	B	B	8	GA	MO	C	AI	Y	S T			Q Q	
REMARKS:															
895A	RCS	235296	A	AC	10	CK	SA	C	NA	N	SC L	060	11	R R	
REMARKS:															
895B	RCS	235296	A	AC	10	CK	SA	C	NA	N	SC L	060	11	R R	
REMARKS:															
895C	RCS	235296	A	AC	10	CK	SA	C	NA	N	SC L	060	11	R R	
REMARKS:															
895D	RCS	235296	A	AC	10	CK	SA	C	NA	N	SC L	060	11	R R	
REMARKS:															
897A	RCS	235296	A	AC	10	CK	SA	C	NA	N	SC L	066	11	R R	
REMARKS:															
897B	RCS	235296	A	AC	10	CK	SA	C	NA	N	SC L	066	11	R R	
REMARKS:															
897C	RCS	235296	A	AC	10	CK	SA	C	NA	N	SC L	066	11	R R	
REMARKS:															
897D	RCS	235296	A	AC	10	CK	SA	C	NA	N	SC L	066	11	R R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
898	SIS	2735	B	B	6	GA	O	C	AI	N	S			Q	
REMARKS:															
951	PSS	2745	A	B	3/8	GL	AO	C	FC	Y	S T F			Q Q Q	
REMARKS:															
953	PSS	2745	A	B	3/8	GL	AO	C	FC	Y	S T F			Q Q Q	
REMARKS:															
955A	PSS	2745	A	B	3/4	GL	MO	C	AI	Y	S T			Q Q	
REMARKS:															
955B	PSS	2745	A	B	3/4	GL	MO	C	AI	Y	S T			Q Q	
REMARKS:															
956A	PSS	2745	A	A	3/8	GL	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
956B	PSS	2745	A	A	3/8	GL	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
956C	PSS	2745	A	A	3/8	GL	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
956D	PSS	2745	A	A	3/8	GL	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
956E	PSS	2745	A	A	3/8	GL	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
956F	PSS	2745	A	A	3/8	GL	MO	O	FA	Y	S T L	A	1	Q Q R	
REMARKS:															
956G	PSS	2745	A	A	3/8	GL	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
956H	PSS	2745	A	A	3/8	GL	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
958	RHR	227781	B	A	3/4	GL	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
959	PSS	2745	B	A	3/4	GL	MO	C	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
95A	WCPS	5.2-27		AC		CK	SP				SC L	043 A	1 1	R R	
REMARKS:															
95B	WCPS	5.2-27		AC		CK	SP				SC L	043 A	1 1	R R	
REMARKS:															
95C	WCPS	5.2-27		A		BL	M				S L	044 A	1 1	R R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS.IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
95D	WCPS	5.2-27		A		BL	M				S L	044 A	1 1	R R	
REMARKS:															
990A	PSS	2745	B	A	3/4	GL	MO	C	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
990B	PSS	2745	B	A	3/4	GL	MO	C	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
990D	PSS	2745	B	A	3/4	GL	M	C	AI	N	S L	A	1	Q R	
REMARKS:															
BFD-2-21	FW	2019	C	B	20	GA	MO	O	AI	Y	S T	015 015	3 3	CS CS	
REMARKS:															
BFD-2-22	FW	2019	C	B	20	GA	MO	O	AI	Y	S T	015 015	3 3	CS CS	
REMARKS:															
BFD-31	AFW	2019	C	C	4	CK	SA	C		N	S	014	2	R	
REMARKS:															
BFD-34	AFW	2019	C	C	4	CK	SA	C		N	S	013	2,5	R	
REMARKS: PART STROKE AT C.S.															
BFD-35	AFW	2019	B	C	3	CK	SA	C		N	S	013	2,5	R	
REMARKS: PART STROKE AT C.S.															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS.IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
BFD-37	AFW	2019	B	C	3	CK	SA	C		N	S	013	2,5	R	
REMARKS: PART STROKE AT C.S.															
BFD-39	AFW	2019	C	C	4	CK	SA	C		N	S	013	2,5	R	
REMARKS: PART STROKE AT C.S.															
BFD-40	AFW	2019	B	C	3	CK	SA	C		N	S	013	2,5	R	
REMARKS: PART STROKE AT C.S.															
BFD-42	AFW	2019	B	C	3	CK	SA	C		N	S	013	2,5	R	
REMARKS: PART STROKE AT C.S.															
BFD-47	AFW	2019	B	C	3	CK	SA	C		N	S	014	2	R	
REMARKS:															
BFD-47-1	AFW	2019	B	C	3	CK	SA	C		N	S	014	2	R	
REMARKS:															
BFD-47-2	AFW	2019	B	C	3	CK	SA	C		N	S	014	2	R	
REMARKS:															
BFD-47-3	AFW	2019	B	C	3	CK	SA	C		N	S	014	2	R	
REMARKS:															
BFD-50	AFW	2019	C	C	3	CK	SA	C		N	S			Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
BFD-52	AFW	2019	C	C	2	CK	SA	C		N	S			Q	
REMARKS:															
BFD-54	AFW	2019	C	C	2	CK	SA	C		N	S			Q	
REMARKS:															
BFD-6	FW	2019	B	C	18	CK	SA				SC	017	11	R	
REMARKS:															
BFD-6-1	FW	2019	B	C	18	CK	SA				SC	017	11	R	
REMARKS:															
BFD-6-2	FW	2019	B	C	18	CK	SA				SC	017	11	R	
REMARKS:															
BFD-6-3	FW	2019	B	C	18	CK	SA				SC	017	11	R	
REMARKS:															
BFD-68	AFW	2019	C	C	3	CK	SA	C		N	S			Q	
REMARKS:															
BFD-69	AFW	2019	C	C	2	RE	SA	C	O	N	R			R1	4
REMARKS:															
BFD-74	AFW	2019	C	B	1	GL	M	C			S			Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
BFD-79	AFW	2019	B	C	4	CK	SA	C		N	S	012	2,5	R	
REMARKS: PART STROKE AT C.S.															
BFD-79-1	AFW	2019	B	C	4	CK	SA	C		N	S	012	2,5	R	
REMARKS: PART STROKE AT C.S.															
BFD-79-2	AFW	2019	B	C	4	CK	SA	C		N	S	012	2,5	R	
REMARKS: PART STROKE AT C.S.															
BFD-79-3	AFW	2019	B	C	4	CK	SA	C		N	S	012	2,5	R	
REMARKS: PART STROKE AT C.S.															
BV-10A	HR	2727		B	3/4	GA	SO	O	FO	Y	S T F	D		Q Q Q	
REMARKS:															
BV-10B	HR	2727		B	3/4	GA	SO	O	FO	Y	S T F	D		Q Q Q	
REMARKS:															
BV-11A	HR	2727		B	3/4	GA	SO	O	FO	Y	S T F	D		Q Q Q	
REMARKS:															
BV-11B	HR	2727		B	3/4	GA	SO	O	FO	Y	S T F	D		Q Q Q	
REMARKS:															
BV-12A	HR	2727		B	1.25	GA	SO	C	FC	Y	S T F	D		Q Q Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
BV-12B	HR	2727		B	1.25	GA	SO	C	FC	Y	S T F	D		Q Q Q	
REMARKS:															
BV-5A	HR	2727		B	3/4	GA	SO	C	FC	Y	S T F	D		Q Q Q	
REMARKS:															
BV-5B	HR	2727		B	3/4	GA	SO	C	FC	Y	S T F	D		Q Q Q	
REMARKS:															
BV-6A	HR	2727		B	3/4	GA	SO	O	FO	Y	S T F	D		Q Q Q	
REMARKS:															
BV-6B	HR	2727		B	3/4	GA	SO	O	FO	Y	S T F	D		Q Q Q	
REMARKS:															
BV-7A	HR	2727		B	3/4	GA	SO	O	FO	Y	S T F	D		Q Q Q	
REMARKS:															
BV-7B	HR	2727		B	3/4	GA	SO	O	FO	Y	S T F	D		Q Q Q	
REMARKS:															
BV-8A	HR	2727		B	3/4	GA	SO	C	FC	Y	S T F	D		Q Q Q	
REMARKS:															
BV-8B	HR	2727		B	3/4	GA	SO	C	FC	Y	S T F	D		Q Q Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
BV-9A	HR	2727		B	1.25	GA	SO	C	FC	Y	S T F	D		Q Q Q	
REMARKS:															
BV-9B	HR	2727		B	1.25	GA	SO	C	FC	Y	S T F	D		Q Q Q	
REMARKS:															
CD-109	AFW	2018	C	C	6	CK	SA	O	C	N	SC			Q	4
REMARKS:															
CT-25	AFW	2018		C	6	CK	SA	C		N	SC	029	11	R	
REMARKS: SEE RELIEF REQUEST															
CT-26	AFW	2018		C	6	CK	SA	C		N	SC	028	4,2	Q,R	
REMARKS:															
CT-28	AFW	2018		C	6	CK	SA	C		N	SC	029	11	R	
REMARKS: SEE RELIEF REQUEST															
CT-29	AFW	2018		C	8	CK	SA	C		N	SC	028	4,2	Q,R	
REMARKS:															
CT-31	AFW	2018		C	6	CK	SA	C		N	SC	029	11	R	
REMARKS: SEE RELIEF REQUEST															
CT-32	AFW	2018		C	6	CK	SA	C		N	SC	028	4,2	Q,R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS.IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
CT-35	AFW	2018	C	C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															
CT-35-1	AFW	2018	C	C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															
CT-35-2	AFW	2018	C	C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															
CT-85	AFW	2018	C	C	1.5	CK	SA	O	C	N	SC	074	11	R2	4
REMARKS:															
CT-85-1	AFW	2018	C	C	1.5	CK	SA	O	C	N	SC	074	11	R2	4
REMARKS:															
DA-24	EDG	2029		B	1.5	GA	SO	C	FC	Y	S T* F	D		Q Q Q	
REMARKS: * TIMING VERIFIED BY OBSERVING THAT DIESEL CRANKS UPON ENERGIZATION															
DA-24-1	EDG	2029		B	1.5	GA	SO	C	FC	Y	S T* F	D		Q Q Q	
REMARKS: * TIMING VERIFIED BY OBSERVING THAT DIESEL CRANKS UPON ENERGIZATION															
DA-24-2	EDG	2029		B	1.5	GA	SO	C	FC	Y	S T* F	D		Q Q Q	
REMARKS: * TIMING VERIFIED BY OBSERVING THAT DIESEL CRANKS UPON ENERGIZATION															
DA-24-3	EDG	2029		B	1.5	GA	SO	C	FC	Y	S T* F	D		Q Q Q	
REMARKS: * TIMING VERIFIED BY OBSERVING THAT DIESEL CRANKS UPON ENERGIZATION.															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
DA-24-4	EDG	2029		B	1.5	GA	SO	C	FC	Y	S T* F	D		Q Q Q	
REMARKS: *TIMING VERIFIED BY OBSERVING THAT DIESEL CRANKS UPON ENERGIZATION.															
DA-24-5	EDG	2029		B	1.5	GA	SO	C	FC	Y	S T* F	D		Q Q Q	
REMARKS: * TIMING VERIFIED BY OBSERVING THAT DIESEL CRANKS UPON SOLENOID ENERGIZATION.															
DA-25	DA	2029		C	1.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
DA-25-1	DA	2029		C	1.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
DA-25-2	DA	2029		C	1.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
DA-25-3	DA	2029		C	1.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
DA-25-4	DA	2029		C	1.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
DA-25-5	DA	2029		C	1.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
DF-13	DF	2030		C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
DF-14	DF	2030		C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															
DF-25	DF	2030		C	.37	RE	SA	C	O	N	R			R1	4
REMARKS:															
DF-25-1	DF	2030		C	.37	RE	SA	C	O	N	R			R1	4
REMARKS:															
DF-25-2	DF	2030		C	.37	RE	SA	C	O	N	R			R1	4
REMARKS:															
DF-3	EDG	2030		C	1.5	CK	SA	C			SC			Q	
REMARKS:															
DF-3-1	EDG	2030		C	1.5	CK	SA	C			SC			Q	
REMARKS:															
DF-3-2	EDG	2030		C	1.5	CK	SA	C			SC			Q	
REMARKS:															
DF-4	DF	2030		C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															
DF-4-1	DF	2030		C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
DF-4-2	DF	2030		C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															
E-1	PACV	208879		A	3	DIA	AO	C	FC	Y	S T L F	A	1	Q R Q	
REMARKS:															
E-2	PACV	208879		A	3	DIA	AO	C	FC	Y	S T L F	A	1	Q R Q	
REMARKS:															
E-3	PACV	208879		A	3	DIA	AO	C	FC	Y	S T L F	A	1	Q R Q	
REMARKS:															
E-5	PACV	208879		A	3	DIA	AO	C	FC	Y	S T L F	A	1	Q R Q	
REMARKS:															
EA-1	PACV	4061		B	2	DIA	AO	C	FC	Y	S T F			Q Q Q	
REMARKS:															
FCV-1111	SW	2722	C	B	16	BU	M	V	AI	N	S	067	3	CS	
REMARKS:															
FCV-1112	SW	2722	C	B	16	BU	M	V	AI	N	S	067	3	CS	
REMARKS:															
FCV-1121	AFW	2019	C	B	2	GA	AO	O	FO	Y	S T F			Q Q Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
FCV-1123	AFW	2019	C	B	2	GA	AO	O	FO	Y	S T F			Q Q Q	
REMARKS:															
FCV-1170	HVAC	4022		A	36	BU	AO	C	FC	Y	S T L F	030 D A 030	3  1 3	CS CS R CS	
REMARKS:															
FCV-1171	HVAC	4022		A	36	BU	AO	C	FC	Y	S T L F	030 D A 030	3  1 3	CS CS R CS	
REMARKS:															
FCV-1172	HVAC	4022		A	36	BU	AO	C	FC	Y	S T L F	030 D A 030	3  1 3	CS CS R CS	
REMARKS:															
FCV-1173	HVAC	4022		A	36	BU	AO	C	FC	Y	S T L F	030 D A 030	3  1 3	CS CS R CS	
REMARKS:															
FCV-1176	SW	2722	C	B	6	BU	AO	T	O	Y	S T F			Q Q Q	
REMARKS:															
FCV-1176A	SW	2722	C	B	6	BU	AO	T	O	Y	S T F			Q Q Q	
REMARKS:															
FCV-1181	IA	1576		C	.5	CK	SA	C	O	N	SC			Q	4
REMARKS:															
FCV-1205A	AFW	2018	C	BP	8	GL	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
FCV-1308	PACV	208879		B	3	DIA	AO	C	FC	Y	S	045		Q	
REMARKS: SEE RELIEF REQUEST FOR POSITION VERIFICATION															
FCV-1309	PACV	208879		B	3	DIA	AO	C	FC	Y	S	045		Q	
REMARKS: SEE RELIEF REQUEST FOR POSITION VERIFICATION															
FCV-1A	HR	2727		B	3/4	GA	AO	C	FC	Y	S F			Q Q	
REMARKS:															
FCV-1B	HR	2727		B	3/4	GA	AO	C	FC	Y	S F			Q Q	
REMARKS:															
FCV-21-1NC	HVAC	4022		B	48	BU	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															
FCV-21-2NC	HVAC	4022		B	48	BU	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															
FCV-21-3NO	HVAC	4022		B	48	BU	AO	O	FC	Y	S T F			Q Q Q	
REMARKS:															
FCV-22-4NC	HVAC	4022		B	48	BU	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															
FCV-22-5NC	HVAC	4022		B	48	BU	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
FCV-22-6NO	HVAC	4022		B	48	BU	AO	O	FC	Y	S T F			Q Q Q	
REMARKS:															
FCV-23-7NC	HVAC	4022		B	48	BU	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															
FCV-23-8NC	HVAC	4022		B	48	BU	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															
FCV-23-9NO	HVAC	4022		B	48	BU	AO	O	FC	Y	S T F			Q Q Q	
REMARKS:															
FCV-24-10NC	HVAC	4022		B	48	BU	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															
FCV-24-11NC	HVAC	4022		B	48	BU	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															
FCV-24-12NO	HVAC	4022		B	48	BU	AO	O	FC	Y	S T F			Q Q Q	
REMARKS:															
FCV-25-13NC	HVAC	4022		B	48	BU	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															
FCV-25-14NC	HVAC	4022		B	48	BU	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
FCV-25-15NO	HVAC	4022		B	48	BU	AO	O	FC	Y	S T F			Q Q Q	
REMARKS:															
FCV-2A	HR	2727		B	1.5	GA	AO			Y	S F			Q Q	
REMARKS:															
FCV-2B	HR	2727		B	1.5	GA	AO			Y	S F			Q Q	
REMARKS:															
FCV-405A	AFW	2019	C	B	2	GA	AO	O	FO	Y	S T F	016		Q Q	
REMARKS:															
FCV-405B	AFW	2019	C	B	2	GA	AO	O	FO	Y	S T F	016		Q Q	
REMARKS:															
FCV-405C	AFW	2019	C	B	2	GA	AO	O	FO	Y	S T F	016		Q Q	
REMARKS:															
FCV-405D	AFW	2019	C	B	2	GA	AO	O	FO	Y	S T F	016		Q Q	
REMARKS:															
FCV-406A	AFW	2019	C	B	2	GA	AO	O	FO	Y	S T F	016		Q Q	
REMARKS:															
FCV-406B	AFW	2019	C	B	2	GA	AO	O	FO	Y	S T F	016		Q Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
FCV-406C	AFW	2019	C	B	2	GA	AO	O	FO	Y	S T F	016		Q Q	
REMARKS:															
FCV-406D	AFW	2019	C	B	2	GA	AO	O	FO	Y	S T F	016		Q Q	
REMARKS:															
FCV-417	FW	2019	C	B	18	GA	AO	O	FC	Y	S T F	011 011 011	3,10 3,10 3,10	CS CS CS	
REMARKS:															
FCV-417L	FW	2019	C	B	6	GA	AO	O	FC	Y	S T F	010 010 010	3,10 3,10 3,10	CS CS CS	
REMARKS:															
FCV-427	FW	2019	C	B	18	GA	AO	O	FC	Y	S T F	011 011 011	3,10 3,10 3,10	CS CS CS	
REMARKS:															
FCV-427L	FW	2019	C	B	6	GA	AO	O	FC	Y	S T F	010 010 010	3,10 3,10 3,10	CS CS CS	
REMARKS:															
FCV-437	FW	2019	C	B	18	GA	AO	O	FC	Y	S T F	011 011 011	3,10 3,10 3,10	CS CS CS	
REMARKS:															
FCV-437L	FW	2019	C	B	6	GA	AO	O	FC	Y	S T F	010 010 010	3,10 3,10 3,10	CS CS CS	
REMARKS:															
FCV-447	FW	2019	C	B	18	GA	AO	O	FC	Y	S T F	011 011 011	3,10 3,10 3,10	CS CS CS	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
FCV-447L	FW	2019	C	B	6	GA	AO	O	FC	Y	S T F	010 010 010	3,10 3,10 3,10	CS CS CS	
REMARKS:															
FCV-625	CCW	227781	C	A	3	GA	MO	O	AI	Y	S T L	001 001 A	3 3 1	CS CS R	
REMARKS:															
HCV-1118	AFW	2019	C	B		T	AO	C	FC	Y	S F			Q Q	
REMARKS:															
HCV-3100	RCS	2738	E5	B	3/4	GA	MO	C	AI	Y	S T	047 047	3 3	CS CS	
REMARKS:															
HCV-3101	RCS	2738		B	3/4	GA	MO	C	AI	Y	S T	047 047	3 3	CS CS	
REMARKS:															
HCV-638	CCW	2720	B	B	8	BU	MO	O	AI	Y	S T			Q Q	
REMARKS:															
HCV-640	RHR	235296	B	B	8	BU	MO	O	AI	Y	S T			Q Q	
REMARKS:															
IA-1	IA	2036		C	1	RE	SA	C	O	N	R			R1	4
REMARKS:															
IA-1-1	IA	2036		C	1	RE	SA	C	O	N	R			R1	4
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
IA-1342	IA	2036		C	.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
IA-1343	IA	2036		C	.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
IA-1352	IA	2036		C	.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
IA-1353	IA	2036		C	.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
IA-2	IA	2036		C	3	CK	SA	C	O	N	SC			Q	4
REMARKS:															
IA-2-1	IA	2036		C	3	CK	SA	C	O	N	SC			Q	4
REMARKS:															
IA-20	IA	235296		C	3	CK	SA				SC	036	11	R	
REMARKS:															
IA-39	IA	2036		AC	2	CK	SA				SC L	035 A	8 1	R R	
REMARKS:															
IA-571	IA	2036		C	1	RE	SA	C	O	N	R			R1	4
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
IIP-500	FW	2019		A	1/4	GL	M	C	AI	N	L	A	1	R	
REMARKS: FP S/G LEVEL TRANSMITTERS A-PASSIVE															
IIP-501	FW	2019		A	1/4	GL	M	C	AI	N	L	A	1	R	
REMARKS: FP S/G LEVEL TRANSMITTERS A-PASSIVE															
IIP-502	FW	2019		A	1/4	GL	M	C	AI	N	L	A	1	R	
REMARKS: FP S/G LEVEL TRANSMITTERS A-PASSIVE															
IIP-503	FW	2019		A	1/4	GL	M	C	AI	N	L	A	1	R	
REMARKS: FP S/G LEVEL TRANSMITTERS A-PASSIVE															
IIP-504	RCS	2738		A	1/4	GL	M	LC	AI	N	L	A	1	R	
REMARKS: FP PRZR PRESS. & LEVEL TRANSMITTERS A-PASSIVE															
IIP-505	RCS	2738		A	1/4	GL	M	LC	AI	N	L	A	1	R	
REMARKS: FP PRZR PRESS. & LEVEL TRANSMITTERS A-PASSIVE															
IIP-506	RCS	2738		A	1/4	GL	M	LC	AI	N	L	A	1	R	
REMARKS: FP PRZR PRESS. & LEVEL TRANSMITTERS A-PASSIVE															
IIP-507	RCS	2738		A	1/4	GL	M	LC	AI	N	L	A	1	R	
REMARKS: FP PRZR PRESS. & LEVEL TRANSMITTERS A-PASSIVE															
LCV-112B	CVCS	2736	B	B	4	BU	AO	C	FC	Y	S	023	3	CS	
REMARKS:											T	023	3	CS	
											F	023	3	CS	

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
LCV-112C	CVCS	2736	B	B	4	GA	MO	O	AI	Y	S T	024 024	3 3	CS CS	
REMARKS:															
LCV-1158	AFW	2018	C	B	12	BU	AO	O	FC	Y	S T F			Q Q Q	
REMARKS:															
LCV-1207A	EDG	2030		B	1.5	GA	EH	O	FO	Y	S F	031		Q Q	
REMARKS:															
LCV-1207B	EDG	2030		B	1.5	GA	EH	O	FO	Y	S F	031		Q Q	
REMARKS:															
LCV-1208A	EDG	2030		B	1.5	GA	EH	O	FO	Y	S F	031		Q Q	
REMARKS:															
LCV-1208B	EDG	2030		B	1.5	GA	EH	O	FO	Y	S F	031		Q Q	
REMARKS:															
LCV-1209A	EDG	2030		B	1.5	GA	EH	O	FO	Y	S F	031		Q Q	
REMARKS:															
LCV-1209B	EDG	2030		B	1.5	GH	EH	O	FO	Y	S F	031		Q Q	
REMARKS:															
MS-1-21	MS	2017	B	BC	28	SC	AO	O	FC	Y	S T F	039 039 039	3 3 3	CS CS CS	
REMARKS: NOTE: TECH SPECS 4.7															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
MS-45A	MS	2017	B	C	8	RE	SA	C			BT			R	
REMARKS:															
MS-45B	MS	2017	B	C	8	RE	SA	C			BT			R	
REMARKS:															
MS-45C	MS	2017	B	C	8	RE	SA	C			BT			R	
REMARKS:															
MS-45D	MS	2017	B	C	8	RE	SA	C			BT			R	
REMARKS:															
MS-46A	MS	2017	B	C	10	RE	SA	C			BT			R	
REMARKS:															
MS-46B	MS	2017	B	C	10	RE	SA	C			BT			R	
REMARKS:															
MS-46C	MS	2017	B	C	10	RE	SA	C			BT			R	
REMARKS:															
MS-46D	MS	2017	B	C	10	RE	SA	C			BT			R	
REMARKS:															
MS-47A	MS	2017	B	C	10	RE	SA	C			BT			R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
MS-47B	MS	2017	B	C	10	RE	SA	C			BT			R	
REMARKS:															
MS-47C	MS	2017	B	C	10	RE	SA	C			BT			R	
REMARKS:															
MS-47D	MS	2017	B	C	10	RE	SA	C			BT			R	
REMARKS:															
MS-48A	MS	2017	B	C	10	RE	SA	C			BT			R	
REMARKS:															
MS-48B	MS	2017	B	C	10	RE	SA	C			BT			R	
REMARKS:															
MS-48C	MS	2018	B	C	10	RE	SA	C			BT			R	
REMARKS:															
MS-48D	MS	2017	B	C	10	RE	SA	C			BT			R	
REMARKS:															
MS-49A	MS	2017	B	C	10	RE	SA	C			BT			R	
REMARKS:															
MS-49B	MS	2017	B	C	10	RE	SA	C			BT			R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
MS-49C	MS	2017	B	C	10	RE	SA	C			BT			R	
REMARKS:															
MS-49D	MS	2017	B	C	10	RE	SA	C			BT			R	
REMARKS:															
MS-52	MS	2017	C	C	4	RE	SA	C	O	N	R			R1	4
REMARKS:															
MW-17	AFW	2018		A		GA	M	LC			L	A	1	R	
REMARKS: A-PASSIVE															
MW-17-1	AFW	2018		A		GA	M	LC			L	A	1	R	
REMARKS: A-PASSIVE															
PCV-1133	MS	227780	C	B	6	GA	AO	O	FC	N	S T F	041 041 041	3 3 3	CS CS CS	
REMARKS:															
PCV-1134	MS	2017	B	B	6	AN	AO	C	FC	N	S F	040 040	3 3	CS CS	
REMARKS:															
PCV-1135	MS	2017	B	B	6	AN	AO	C	FC	N	S F	040 040	3 3	CS CS	
REMARKS:															
PCV-1136	MS	2017	B	B	6	AN	AO	C	FC	N	S F	040 040	3 3	CS CS	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
PCV-1137	MS	2017	B	B	6	AN	AO	C	FC	N	S F	040 040	3 3	CS CS	
REMARKS:															
PCV-1139	MS	2017	C	B	2.5	GA	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															
PCV-1177-1	WCPS	2726		C	1.5	CK	SA	C	O	N	SC	072	3	CS	4
REMARKS:															
PCV-1177-2	WCPS	2726		C	1.5	CK	SA	C	O	N	SC	072	3	CS	4
REMARKS:															
PCV-1177-3	WCPS	2726		C	1.5	CK	SA	C	O	N	SC	072	3	CS	4
REMARKS:															
PCV-1177-4	WCPS	2726		C	1.5	CK	SA	C	O	N	SC	072	3	CS	4
REMARKS:															
PCV-1178-1	WCPS	2726		C	1.5	CK	SA	C	O	N	SC	072	3	CS	4
REMARKS:															
PCV-1178-2	WCPS	2726		C	1.5	CK	SA	C	O	N	SC	072	3	CS	4
REMARKS:															
PCV-1178-3	WCPS	2726		C	1.5	CK	SA	C	O	N	SC	072	3	CS	4
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
PCV-1178-4	WCPS	2726		C	1.5	CK	SA	C	O	N	SC	072	3	CS	4
REMARKS:															
PCV-1179-1	WCPS	2726		C	1	CK	SA	O	C	N	SC			Q	4
REMARKS:															
PCV-1179-2	WCPS	2726		C	1	CK	SA	O	C	N	SC			Q	4
REMARKS:															
PCV-1179-3	WCPS	2726		C	1	CK	SA	O	C	N	SC			Q	4
REMARKS:															
PCV-1179-4	WCPS	2726		C	1	CK	SA	O	C	N	SC			Q	4
REMARKS:															
PCV-1187	AFW	2018	C	B	6	GA	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															
PCV-1188	AFW	2018	C	B	8	GA	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															
PCV-1189	AFW	2018	C	B	6	GA	AO	C	FO	Y	S T F			Q Q Q	
REMARKS:															
PCV-1190	HVAC	4022		A	10	BU	AO	C	FC	Y	S T L F	D A	1	Q Q R Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS.IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
PCV-1191	HVAC	4022		A	10	BU	AO	C	FC	Y	S T L F	D A	I	Q Q R Q	
REMARKS:															
PCV-1192	HVAC	4022		A	10	BU	AO	C	FC	Y	S T L F	D A	1	Q Q R Q	
REMARKS:															
PCV-1213	AFW	2019	C	B	1	GA	AO	C3	FO	Y	S F			Q Q	
REMARKS:															
PCV-1214	SGBD	2729	B	A	2	GL	AO	O	C	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
PCV-1214A	SGBD	2729	B	A	2	GL	AO	O	C	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
PCV-1215	SGBD	2729	B	A	2	GL	AO	O	C	Y	S T F L	A	1	Q Q Q R	
REMARKS:															
PCV-1215A	SGBD	2729	B	A	2	GL	AO	O	C	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
PCV-1216	SGBD	2729	B	A	2	GL	AO	O	C	Y	S T F L	A	1	Q Q Q R	
REMARKS:															
PCV-1216A	SGBD	2729	B	A	2	GL	AO	O	C	Y	S T L F	A	1	Q Q R Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
PCV-1217	SGBD	2729	B	A	2	GL	AO	O	C	Y	S T F L	A	1	Q Q Q R	
REMARKS:															
PCV-1217A	SGBD	2729	B	A	2	GL	AO	O	C	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
PCV-1218	WCPS	2726		C	1	RE	SA	C	O	N	R			R1	4
REMARKS:															
PCV-1219	WCPS	2726		C	1	RE	SA	C	O	N	R			R1	4
REMARKS:															
PCV-1220	WCPS	2726		C	1	RE	SA	C	O	N	R			R1	4
REMARKS:															
PCV-1221	WCPS	2726		C	1	RE	SA	C	O	N	R			R1	4
REMARKS:															
PCV-1228	IA	2036		A	2	GL	AO	O	FC	Y	S T L F	034 034 A 034	2 2 1 2	R R R R	
REMARKS:															
PCV-1229	RMS	2025		A	4	GA	AO	C	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
PCV-1230	RMS	2025		A	4	GA	AO	C	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
PCV-1231	WCPS	2025		B	1	GA	M				S T F			Q Q Q	
REMARKS: ACTIVE WHEN VALVES ARE OPEN OR UNDER THE SJAE CONTROL SYSTEM.															
PCV-1233	WCPS	2025		BP	1	GA	M				S T F			Q Q Q	
REMARKS: ACTIVE WHEN VALVES ARE OPEN OR UNDER THE SJAE CONTROL SYSTEM.															
PCV-1234	RMS	2726		A	1	GA	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
PCV-1235	RMS	2726		A	1	GA	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
PCV-1236	RMS	2726		A	1	GA	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
PCV-1237	RMS	2726		A	1	GA	AO	O	FC	Y	S T L F	A	1	Q Q R Q	
REMARKS:															
PCV-1238	WCPS	2726		B	1/2	GA	AO	C	O		S T F			Q Q Q	
REMARKS:															
PCV-1239	WCPS	2726		B	1/2	GA	AO	C	O		S T F			Q Q Q	
REMARKS:															
PCV-1240	WCPS	2726		B	1/2	GA	AO	C	O		S T F			Q Q Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
PCV-1241	WCPS	2726		B	1/2	GA	AO	C	O		S T F			Q Q Q	
REMARKS:															
PCV-1242	WCPS	2726		C	.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
PCV-1243	WCPS	2726		C	.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
PCV-1244	WCPS	2726		C	.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
PCV-1245	WCPS	2726		C	.5	RE	SA	C	O	N	R			R1	4
REMARKS:															
PCV-1310A	MS	2017	C	B	4	GA	AO	O	FO	N	S T F			Q Q Q	
REMARKS:															
PCV-1310B	MS	2017	C	B	4	GA	AO	O	FO	N	S T F			Q Q Q	
REMARKS:															
PCV-455C	RCS	2738	A	B	3	GL	AO	C	FC	Y	S T F	046 046 046	3 3 3	CS CS CS	
REMARKS: SEE ALSO RELIEF REQUEST D															
PCV-456	RCS	2738	A	B	3	GL	AO	C	FC	Y	S T F	046 046 046	3 3 3	CS CS CS	
REMARKS: SEE RELIEF REQUEST D															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
PCV-464	RCS	2738	A	C	4	RE	SA	C		Y	BT			R	
REMARKS:															
PCV-466	RCS	2738	A	C	4	RE	SA	C		Y	BT			R	
REMARKS:															
PCV-468	RCS	2738	A	C	4	RE	SA	C		Y	BT			R	
REMARKS:															
RCV-017	CCW	227781		C	2	AO	GA	O	C	Y	S T F			Q Q Q	4
REMARKS:															
SA-24	SA	2035		A	2	DIA	M	LC	AI	N	L	A	1	R	
REMARKS: A-PASSIVE															
SA-24-1	SA	2035		A	2	DIA	M	LC	AI	N	L	A	1	R	
REMARKS: A-PASSIVE															
SOV-1277	WCPS	2726		B	1	GA	SO	O	C	N	S T F	077 G 077	3 3	CS CS	4
REMARKS:															
SOV-1278	WCPS	2726		B	1	GA	SO	O	C	N	S T F	077 G 077	3 3	CS CS	4
REMARKS:															
SOV-1279	WCPS	2726		B	1	GA	SO	O	C	N	S T F	G		Q Q	4
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
SOV-1280	WCPS	2726		B	1	GA	SO	O	C	N	S T F	G		Q  Q	4
REMARKS:															
SOV-1340	WCPS	2726		B	1	GA	SO	C	O	N	S T F	079 G 079	2  2	R  R	4
REMARKS:															
SOV-1341	WCPS	2726		B	1	GA	SO	C	O	N	S T F	079 G 079	2  2	R  R	4
REMARKS:															
SOV-1342	WCPS	2726		B	1	GA	SO	C	O	N	S T F	079 G 079	2  2	R  R	4
REMARKS:															
SOV-1343	WCPS	2726		B	1	GA	SO	C	O	N	S T F	079 G 079	2  2	R  R	4
REMARKS:															
SOV-1344	WCPS	2726		B	1	GA	SO	C	O	N	S T F	079 G 079	2  2	R  R	4
REMARKS:															
SOV-1345	WCPS	2726		B	1	GA	SO	C	O	N	S T F	079 G 079	2  2	R  R	4
REMARKS:															
SOV-1434	WCPS	2726		B	1	GA	SO	O	C	N	S T F	079 G 079	2  2	R  R	4
REMARKS:															
SOV-1435	WCPS	2726		B	1	GA	SO	O	C	N	S T F	079 G 079	2  2	R  R	4
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
SOV-1436	WCPS	2726		B	1	GA	SO	O	C	N	S T F	079 G 079	2  2	R  R	4
REMARKS:															
SOV-3416	WDS	2719	C	A	1	GA	SO	O	FC	Y	S T L F	B B,D A B	* * 1 *	Q Q R Q	
REMARKS: * REMOTE POSITION INDICATORS CHECKED DURING LEAK RATE TEST.															
SOV-3417	WDS	2719	C	A	1	GA	SO	O	FC	Y	S T L F	B B,D A B	* * 1 *	Q Q R Q	
REMARKS: * REMOTE POSITION INDICATORS CHECKED DURING LEAK RATE TEST.															
SOV-3418	RCS	2738	C	A	3/4	GL	SO	O	FC	Y	S T L F	B D A	  1	Q Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION DURING APPENDIX J REFUELING TESTS.															
SOV-3419	RCS	2738	C	A	3/4	GA	SO	O	FC	Y	S T L F	B D A	  1	Q Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION DURING APPENDIX J REFUELING TESTS.															
SOV-3420	HR	2727	B	A	3/4	GA	SO	C	FC	Y	S T L F	B D A	  1	Q Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION DURING APPENDIX J REFUELING TESTS															
SOV-3421	HR	2727	B	A	1.25	GA	SO	C	FC	Y	S T L F	B D A	  1	Q Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION DURING APPENDIX J REFUELING TESTS															
SOV-3422	HR	2727	B	A	3/4	GA	SO	C	FC	Y	S T L F	B D A	  1	Q Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION DURING APPENDIX J REFUELING TESTS															
SOV-3423	HR	2727	B	A	1.25	GA	SO	C	FC	Y	S T L F	B D A	  1	Q Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION DURING APPENDIX J REFUELING TESTS															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS.IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
SOV-3500	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-3501	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-3502	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-3503	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-3504	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-3505	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-3506	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-3507	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-3508	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
SOV-3509	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-3510	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-3511	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-3512	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-3513	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-3514	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-3515	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-3516	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-3517	IVSW	2746		B	3/8	GL	SO	C	FC	Y	S T F	038 D	2	Q Q Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
SOV-3518	IVSW	2746		B	3/8	GL	SO	C	FO	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-3519	IVSW	2746		B	3/8	GL	SO	C	FO	Y	S T F	038 D	2	Q Q Q	
REMARKS:															
SOV-5018	PACS	208479		A	3/8	GA	SO	C	FC	Y	S T L F	B D A	1	Q Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION WILL OCCUR DURING APPENDIX J TESTING AT REFUELINGS.															
SOV-5019	PACS	208479		A	3/8	GA	SO	C	FC	Y	S T L F	B D A	1	Q Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION WILL OCCUR DURING APPENDIX J TESTING AT REFUELINGS.															
SOV-5020	PACS	208479		A	3/8	GA	SO	C	FC	Y	S T L F	B D A	1	Q Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION WILL OCCUR DURING APPENDIX J TESTING AT REFUELINGS.															
SOV-5021	PACS	208479		A	3/8	GA	SO	C	FC	Y	S T L F	B D A	1	Q Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION WILL OCCUR DURING APPENDIX J TESTING DURING REFUELINGS.															
SOV-5022	PACS	208479		A	3/8	GA	SO	C	FC	Y	S T L F	B D A	1	Q Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION WILL OCCUR DURING APPENDIX J TESTING DURING REFUELINGS.															
SOV-5023	PACS	208479		A	3/8	GA	SO	C	FC	Y	S T L F	B D A	1	Q Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION WILL OCCUR DURING APPENDIX J TESTING DURING REFUELINGS.															
SOV-5024	PACS	208479		A	3/8	GA	SO	C	FC	Y	S T L F	B D A	1	Q Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION WILL OCCUR DURING APPENDIX J TESTING DURING REFUELINGS.															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
SOV-5025	PACS	208479		A	3/8	GA	SO	C	FC	Y	S T L F	B D A	1	Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION WILL OCCUR DURING APPENDIX J REFUELING TESTS															
SOV-EW-1	PACV	208879		B	3	GA	SO	O	C	N	S T F	G		Q Q	4
REMARKS:															
SOV-EW-2	PACV	208879		B	3	GA	SO	O	C	N	S T F	G		Q Q	4
REMARKS:															
SOV-IV-1A	HR	2727	B	A	1	GA	SO	C	FC	Y	S T L F	B D A	1	Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION WILL OCCUR DURING APPENDIX J REFUELING TESTS															
SOV-IV-1B	HR	2727	B	A	1	GA	SO	C	FC	Y	S T L F	B D A	1	Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION WILL OCCUR DURING APPENDIX J REFUELING TESTS															
SOV-IV-2A	HR	2727	B	A	1	GA	SO	C	FC	Y	S T L F	B D A	1	Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION WILL OCCUR DURING APPENDIX J REFUELING TESTS															
SOV-IV-2B	HR	2727	B	A	1	GA	SO	C	FC	Y	S T L F	B D A	1	Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION WILL OCCUR DURING APPENDIX J REFUELING TESTS															
SOV-IV-3A	HR	2727	B	A	3/4	GA	SO	C	FC	Y	S T L F	B D A	1	Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION WILL OCCUR DURING APPENDIX J REFUELING TESTS															
SOV-IV-3B	HR	2727	B	A	3/4	GA	SO	C	FC	Y	S T L F	B D A	1	Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION WILL OCCUR DURING APPENDIX J REFUELING TESTS															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
SOV-IV-5A	HR	2727	B	A	2	GA	SO	C	FC	Y	S T L F	B D A	1	Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION WILL OCCUR DURING APPENDIX J REFUELING TESTS															
SOV-IV-5B	HR	2727	B	A	2	GA	SO	C	FC	Y	S T L F	B D A	1	Q R Q	
REMARKS: PHYSICAL VERIFICATION OF VALVE POSITION WILL OCCUR DURING APPENDIX J REFUELING TESTS															
SWN-1	SW	2722	C	C	14	CK	SA	O		N	SC			Q	
REMARKS:															
SWN-1-1	SW	2722	C	C	14	CK	SA	O		N	SC			Q	
REMARKS:															
SWN-1-2	SW	2722	C	C	14	CK	SA	O		N	SC			Q	
REMARKS:															
SWN-1-3	SW	2722	C	C	14	CK	SA	O		N	SC			Q	
REMARKS:															
SWN-1-4	SW	2722	C	C	14	CK	SA	O		N	SC			Q	
REMARKS:															
SWN-1-5	SW	2722	C	C	14	CK	SA	O		N	SC			Q	
REMARKS:															
SWN-27	SW	2722	C	B	2.5	GL	M	V	AI	N	S			Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
SWN-27-1	SW	2722	C	B	2.5	GL	M	V	AI	N	S			Q	
REMARKS:															
SWN-29	SW	209762	C	B	10	BU	M	V	AI	N	S			Q	
REMARKS:															
SWN-30	SW	209762	C	B	10	BU	M	V	AI	N	S			Q	
REMARKS:															
SWN-31	SW	209762	C	B	20	BU	M	V	AI	N	S			Q	
REMARKS:															
SWN-32	SW	209762	C	B	20	BU	M	V	AI	N	S			Q	
REMARKS:															
SWN-38	SW	209762	C	B	18	BU	M	V	AI	N	S			Q	
REMARKS:															
SWN-39	SW	209762	C	B	18	BU	M	V	AI	N	S			Q	
REMARKS:															
SWN-41-1-A	SW	209762	C	A	10	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
SWN-41-1-B	SW	209762	C	B	10	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
SWN-41-2-A	SW	209762	C	A	10	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
SWN-41-2-B	SW	209762	C	B	10	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-41-3-A	SW	209762	C	A	10	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
SWN-41-3-B	SW	209762	C	B	10	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-41-4-A	SW	209762	C	A	10	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
SWN-41-4-B	SW	209762	C	B	10	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-41-5-A	SW	209762	C	A	10	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
SWN-41-5-B	SW	209762	C	B	10	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-42-1	SW	209762	C	AC	1.5	RE	SA	C	O	N	R L	A	1	R1 R	
REMARKS: * PER IWV-3510-1															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
SWN-42-2	SW	209762	C	AC	1.5	RE	SA	C	O	N	R L	A	1	R1 R	
REMARKS: * PER IWV-3510-1															
SWN-42-3	SW	209762	C	AC	1.5	RE	SA	C	O	N	R L	A	1	R1 R	
REMARKS: * PER IWV-3510-1															
SWN-42-4	SW	209762	C	AC	1.5	RE	SA	C	O	N	R L	A	1	R1 R	
REMARKS: * PER IWV-3510-1															
SWN-42-5	SW	209762	C	AC	1.5	RE	SA	C	O	N	R L	A	1	R1 R	
REMARKS: * PER IWV-3510-1															
SWN-43-1	SW	209762	C	A	1	GA	M	C			L	A	1	R	
REMARKS:															
SWN-43-2	SW	209762	C	A	1	GA	M	C			L	A	1	R	
REMARKS:															
SWN-43-3	SW	209762	C	A	1	GA	M	C			L	A	1	R	
REMARKS:															
SWN-43-4	SW	209762	C	A	1	GA	M	C			L	A	1	R	
REMARKS:															
SWN-43-5	SW	209762	C	A	1	GA	M	C			L	A	1	R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
SWN-44-1-A	SW	209762	C	A	10	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
SWN-44-1-B	SW	209762	C	B	10	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-44-2-A	SW	209762	C	A	10	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
SWN-44-2-B	SW	209762	C	B	10	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-44-3-A	SW	209762	C	A	10	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
SWN-44-3-B	SW	209762	C	B	10	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-44-4-A	SW	209762	C	A	10	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
SWN-44-4-B	SW	209762	C	B	10	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-44-5-A	SW	209762	C	A	10	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
SWN-44-5-B	SW	209762	C	B	10	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-51-1A	SW	209762	C	B	1	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-51-2A	SW	209762	C	B	1	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-51-3A	SW	209762	C	B	1	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-51-4A	SW	209762	C	B	1	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-51-5A	SW	209762	C	B	1	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-539	SW	2722		C	1	CK	SA				SC	069	11	R	
REMARKS:															
SWN-543	SW	2722		C	1	CK	SA				SC	069	11	R	
REMARKS:															
SWN-544	SW	2722		C	1	CK	SA				SC	069	11	R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 IST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
SWN-548	SW	2722		C	1	CK	SA				SC	069	11	R	
REMARKS:															
SWN-549	SW	2722		C	1	CK	SA				SC	069	11	R	
REMARKS:															
SWN-553	SW	2722		C	1	CK	SA				SC	069	11	R	
REMARKS:															
SWN-554	SW	2722		C	1	CK	SA				SC	069	11	R	
REMARKS:															
SWN-558	SW	2722		C	1	CK	SA				SC	069	11	R	
REMARKS:															
SWN-559	SW	2722		C	1	CK	SA				SC	069	11	R	
REMARKS:															
SWN-56	SW	209762	C	B	2	GL	M	O	AI	N	S			Q	4
REMARKS:															
SWN-563	SW	2722		C	1	CK	SA				SC	069	11	R	
REMARKS:															
SWN-564	SW	2722		C	1	CK	SA				SC	069	11	R	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
SWN-568	SW	2722		C	1	CK	SA				SC	069	11	R	
REMARKS:															
SWN-60	SW	209762	C	B	2	GL	M	C	AI	N	S			Q	4
REMARKS:															
SWN-63	SW	2722	C	C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															
SWN-63-1	SW	2722	C	C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															
SWN-63-2	SW	2722	C	C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															
SWN-70	SW	2722	C	B	2.5	GL	M	V	AI	N	S			Q	
REMARKS:															
SWN-70-1	SW	2722	C	B	2.5	GL	M	V	AI	N	S			Q	
REMARKS:															
SWN-71-1-A	SW	209762	C	A	2	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
SWN-71-1-B	SW	209762	C	B	2	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
SWN-71-2-A	SW	209762	C	A	2	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
SWN-71-2-B	SW	209762	C	B	2	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-71-3-A	SW	209762	C	A	2	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
SWN-71-3-B	SW	209762	C	B	2	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-71-4-A	SW	209762	C	A	2	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
SWN-71-4-B	SW	209762	C	B	2	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-71-5-A	SW	209762	C	A	2	GA	MO	O	AI	Y	S T L	A	1	Q Q R	
REMARKS:															
SWN-71-5-B	SW	209762	C	B	2	GA	MO	O	AI	Y	S T			Q Q	
REMARKS:															
SWN-81	SW	209762	C	C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
 1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
SWN-81-1	SW	209762	C	C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															
SWN-945	SW	209762		C	1	CK	SA	O	C	N	SC	076	11	R2	4
REMARKS:															
SWN-954	SW	209762		C	1	CK	SA	O	C	N	SC	076	11	R2	4
REMARKS:															
SWN-963	SW	209762		C	1	CK	SA	O	C	N	SC	076	11	R2	4
REMARKS:															
SWN-964	SW	209762		C	1	CK	SA	O	C	N	SC	076	11	R2	4
REMARKS:															
SWN-965	SW	209762		C	1	CK	SA	O	C	N	SC	076	11	R2	4
REMARKS:															
SWN-966	SW	209762		C	1	CK	SA	O	C	N	SC	076	11	R2	4
REMARKS:															
SWN-981	SW	209762		C	1	CK	SA	O	C	N	SC	076	11	R2	4
REMARKS:															
SWN-982	SW	209762		C	1	CK	SA	O	C	N	SC	076	11	R2	4
REMARKS:															

INDIAN POINT UNIT 2 TEST & PERFORMANCE SECTION  
1ST PROGRAM VALVE REPORT

VALVE NO	SYSTEM	P&ID NO.	QUAL GROUP	CAT	SIZE	TYPE	ACT	NORMAL POS	FAIL MODE	REMOTE POS. IND	TEST REQTS	RELIEF REQUEST	ALT TESTS	TEST FREQ	REV
SWN-983	SW	209762		C	1	CK	SA	O	C	N	SC	076	11	R2	4
REMARKS:															
TCV-1104	SW	209762	C	B	18	BU	AO	OC	FO	Y	S T F	068 068 068		Q Q Q	
REMARKS: ACTIVE WHEN OPERATED IN THE NORMALLY CLOSED MODE															
TCV-1105	SW	209762	C	B	18	BU	AO	OC	FO	Y	S T F	068 068 068		Q Q Q	
REMARKS: ACTIVE WHEN OPERATED IN THE NORMALLY CLOSED MODE															
UH-43	AS	2027	A	A	3	GA	M	LC			L	A	1	R	
REMARKS: A-PASSIVE															
UH-44	AS	2027	A	A	3	GA	M	LC			L	A	1	R	
REMARKS: A-PASSIVE															
WCP-79	GAS	2726		C	.75	RE	SA	C	O	N	R			R1	4
REMARKS:															

=====

TOTAL VALVES = 717

\*\*\* LAST PAGE \*\*\*

RELIEF REQUEST/SYSTEM REFERENCE

SYSTEM: AFW (Auxiliary Feedwater)  
RELIEFS: 012, 013, 014, 016, 028, 029, 074

4

SYSTEM: CCW (Component Cooling Water)  
RELIEFS: 001, 004, 005, 075

SYSTEM: CCS (Containment Spray)  
RELIEFS: 049, 061, 065

SYSTEM: CVCS (Chemical and Volume Control)  
RELIEFS: 018, 019, 020, 021, 022, 023, 024, 025, 026, 027

SYSTEM: EDG (Emergency Diesel Generator)  
RELIEFS: 031

SYSTEM: FW (Feedwater)  
RELIEFS: 010, 011, 015, 017

SYSTEM: HR (Hydrogen Recombiner)  
RELIEFS: 032, 033

SYSTEM: HVAC (Heating, Ventilating and Air Conditioning)  
RELIEFS: 030

SYSTEM: IA (Instrument Air)  
RELIEFS: 034, 035, 036

SYSTEM: IVSW (Isolation Valve Seal Water)  
RELIEFS: 037, 038

SYSTEM: MS (Main Steam)  
RELIEFS: 039, 040, 041, 042

SYSTEM: N2 (Nitrogen)  
RELIEFS: 071

4

SYSTEM: PACV (Post Accident Containment Vent)  
RELIEFS: 045

SYSTEM: RCS (Reactor Coolant)  
RELIEFS: 009, 046, 047, 048, 053, 054, 060, 066, 081, 083

4

SYSTEM: RHR (Residual Heat Removal)  
RELIEFS: 002, 003, 006, 007, 008

SYSTEM: SIS (Safety Injection)  
RELIEFS: 050, 051, 052, 055, 056, 057, 058, 059, 062, 063, 064

SYSTEM: SW (Service Water)  
RELIEFS: 067, 068, 069, 076

SYSTEM: WCPS (Weld Channel and Penetration)  
RELIEFS: 043, 044, 077, 079

4

RELIEF REQUEST BASIS

STEM: CCW

Relief Request: 001

Valves: 797, 784 and FCV-625  
Category: A  
Quality Group: C

Function:

Valves 797, 784, and FCV-625 are all containment isolation valves in the component cooling system that supplies cooling water to the reactor coolant pumps bearing oil coolers and thermal barriers. Valve 797 is a CIV and allows cooling water to flow to the bearing oil coolers and thermal barriers. Valve 784 is a CIV in the return leg from the RC pump motor bearing cooler. Valve FCV-625 is a CIV in the return leg from the thermal barriers. All these valves are normally open during plant operation and have an emergency function to close upon receipt of a containment isolation signal.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

These valves are open or closed only valves; therefore, part-stroke testing of these valves is impractical. Also, full-stroke exercising these valves quarterly while the plant is at normal operating power is impractical because this would isolate cooling water to the RC pumps.

Alternative Testing:

These valves will be full-stroke exercised at cold shutdowns provided the RC pumps are secured. If one or more RC pumps are not secured at cold shutdowns, the associated valves will be tested at intervals no greater than refuelings.

RELIEF REQUEST BASIS

STEM: RHR

Relief Request: 002

Valve: 744  
Category: A  
Quality Group: B

Function:

Valve 744 is a non-redundant valve in the LPSI/RHR pump discharge header. It is a CIV and is normally open during plant operation. The valve also has a safety function to close following the termination of the LPSI mode of operation of the RHR system.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

Full-stroke testing of the valve quarterly is impractical in that a failure of the valve in the closed position nullifies the function of the RHR pumps in the LPSI mode should an emergency occur concurrent with the valve failure. The valve cannot be exercised at cold shutdowns because closing the valve will terminate the normal RHR cooling mode (required to maintain cold shutdown). It is also impractical to part-stroke exercise the valve since this valve is an open or closed only valve. In addition, Technical Specifications effectively require one RHR pump operable at all times; closing 744 makes the RHR pumps inoperable.

Alternative Testing:

This valve will be full-stroke exercised at refueling outages.

RELIEF REQUEST BASIS

SYSTEM: RHR

Relief Request: 003

Valve: 741A  
Category: AC  
Quality Group: B

Function:

Valve 741A is a check valve and functions as a containment isolation valve in the discharge line from the RHR pumps. This valve is normally closed and opens when the RHR pumps are used in the LPSI mode of emergency cooling.

Test Requirement: IWV-3410, IWV-3520 (Exercise)

Basis for Relief:

Full-stroke testing of the valve quarterly during normal power operations is impractical because the LPSI mode of emergency cooling would have to be initiated to do so. This valve will be part-stroked quarterly using the miniflow test line for the RHR pumps and full stroked at cold shutdown RHR.

Alternative Testing:

This valve will be part-stroked quarterly and full-stroke exercised at cold shutdowns, during the normal shutdown cooling mode of operation of the RHR pumps.

RELIEF REQUEST BASIS

STEM: CCW

Relief Request: 004

Valves: 822A and 822B  
Category: B  
Quality Group: C

Function:

Valves 822A and 822B are flow isolation valves in the component cooling system on the return leg from the residual heat exchangers. The valves are normally closed and have an emergency function to open and allow the flow of component cooling water to the residual heat exchangers.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

Full-stroke testing of these valves during normal plant operation may divert flow from the component cooling system via the 12" return lines. This could result in reduced cooling flow to the RC pump coolers and thermal barriers which could create a potential for overheating and damage to the RC pumps.

Alternative Testing:

These valves will be full-stroke exercised at cold shutdowns provided the RC pumps are secured. If one or more RC pumps are not secured at cold shutdowns, the associated valves will be tested at intervals no greater than refuelings.

RELIEF REQUEST BASIS

STEM: CCW

Relief Request: 005

Valves: 769, 786, and 789  
Category: B  
Quality Group: C

Function:

These valves are isolation valves in the component cooling system that supplies water to the RC pumps bearing oil coolers and thermal barriers. Valve 769 is in the supply header leading to the RC pumps. Valve 786 is in the return header leading from the RC pump bearing oil coolers. Valve 789 is in the return header leading from the RC pumps thermal barriers. These valves are open or closed only valves and are normally open valves. They also receive a safety signal.

Test Requirements: IWV-3410 (Exercise)

Basis for Relief:

Full-stroke testing of these valves quarterly during normal plant operation would cause a loss of cooling water to the RC pumps bearing oil coolers or the thermal barriers or both and would damage the RC pumps. Part-stroke testing is also impractical because these are open or closed only valves.

Alternative Testing:

These valves will be full-stroke exercised during cold shutdowns provided the RC pumps are secured. If one or more RC pumps are not secured at cold shutdowns, the associated valves will be tested at intervals no greater than refuelings.

RELIEF REQUEST BASIS

STEM: RHR

Relief Request: 006

Valves: 743 and 1870  
Category: A  
Quality Group: B

Function:

These valves are Containment Isolation Valves in the miniflow test line of the RHR pumps. These valves are motor operated and are locked open during normal plant operation. They are remote manually shut at some time (long-term) following accident initiation.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

These valves are open or closed only valves; therefore, part-stroke exercising of these valves is impractical. Full-stroke exercising these valves quarterly during normal plant operation is impractical because if the valves were closed and the RHR pumps were needed to start, they would start against a dead head and possibly damage the pumps. Also these valves are locked open valves and are required to be open during an accident.

Alternative Testing:

These valves will be full-stroke exercised at cold shutdowns.

RELIEF REQUEST BASIS

STEM: RHR

Relief Request: 007

Valves: 738A and 738B  
Category: C  
Quality Group: B

Function:

Valves 738A and 738B are RHR pump discharge check valves. Their safety functions are to open to permit LHSI flow to reach the core.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

Full-stroke testing of these valves during normal operation is impractical as it would require full flow test of the RHR pumps through the SI system. This is impractical as it would require safety injection flow to the RCS which is at a higher pressure than the RHR pumps can deliver.

Alternative Testing:

These valves will be part-stroke exercised quarterly during the RHR pump mini-flow test and full-stroke exercised at cold shutdowns by momentary full flow operation of an RHR pump.

RELIEF REQUEST BASIS

SYSTEM: RHR

Relief Request: 008

Valves: 746 and 747  
Category: B  
Quality Group: B

Function:

Valves 746 and 747 are motor operated valves in the LHSI/RHR lines and are downstream of the RHR heat exchangers. These are normally closed valves and receive engineered safeguard signal to open for LHSI/RHR operation.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

Valves 746 and 747 are only capable of being full-stroke exercised. Full-stroke exercising these valves quarterly during normal plant operations would be inconsistent with NRC guidelines for excluding valves from cycling tests in that cycling these valves could subject the LHSI/RHR system to pressures in excess of their design pressure. It is assumed for purposes of a cycling test that one or more of the upstream check valves has failed. No positive methods are available for determining the pressure or lack thereof on the high pressure side of the valve to be cycled.

Alternative Testing:

These valves will be full-stroke exercised at cold shutdowns.

RELIEF REQUEST BASIS

SYSTEM: RCS

Relief Request: 009

Valves: 730, 731  
Category: A  
Quality Group: B

Function:

Valves 730 and 731 are pressure isolation valves between the Reactor Coolant System and RHR system. They are normally closed and have a safety function to open in order to reach cold shutdown for most non-LOCA design basis events.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

These valves are interlocked to prevent their opening at RCS pressures in excess of RHR entry conditions.

Alternative Testing:

These valves will be full-stroke exercised at cold shutdowns.

RELIEF REQUEST BASIS

STEM: FW

Relief Request: 010

Valves: FCV-427L, 437L, 417L, 447L  
Category: B  
Quality Group: C

Function:

These valves are main feedwater regulating valves in the feedwater regulator bypass lines (low flow control path).

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

These valves are normally closed during normal plant operations. They are used during initial start-up of the secondary steam generating system. Exercising these valves quarterly is impractical because the increased flow caused by the opening of the valve would cause a feedwater flow/steam generator level mismatch and cause an unnecessary oscillation in the flow control network and steam generator water level and potential plant trip.

Alternative Testing:

These valves will be full-stroke exercised at cold shutdowns or prior to startup following cold shutdowns.

RELIEF REQUEST BASIS

SYSTEM: FW

Relief Request: 011

Valves: FCV-417, 427, 437, 447  
Category: B  
Quality Group: C

Function:

These valves are the main feedwater regulators which are open during power operations to control the main feedwater supply to the steam generators.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

Exercising these valves quarterly is impractical during power operation in that it would shut off the feedwater to the steam generator; which could result in a reactor trip condition.

Alternative Testing:

These valves will be full-stroke exercised at cold shutdowns or prior to startup following cold shutdowns.

RELIEF REQUEST BASIS

STEM: AFW

Relief Request: 012

Valves: BFD-79, 79-1, 79-2, 79-3  
Category: C  
Quality Group: B

Function:

These valves are check valves in the auxiliary feedwater lines at the interface of the main feedwater line. Their emergency function is to open when the auxiliary feedpumps are activated to supply emergency feedwater from the Condensate Storage Tank.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

Exercising these check valves quarterly during normal operation is impractical since the auxiliary feedwater pumps must be activated to flow ambient temperature water from the CST to the SG which can result in thermal shocking of the SG tube sheet.

Full-stroke exercising at cold shutdown is impractical because the high flow rates required for full-stroke exercising make it difficult to control water levels in the SG. Excessively high water levels in the SG can result in water in the steamlines, and can lead to turbine damage when power operations are resumed.

Alternative Testing:

These valves will be part-stroke exercised at cold shutdowns during operation of the auxiliary feedwater pumps and full-stroke exercised at refuelings in conjunction with the full flow test of the auxiliary feedwater pumps.

RELIEF REQUEST BASIS

STEM: AFW

Relief Request: 013

Valves: BFD-39, BFD-34, BFD-37, BFD-35, BFD-42, BFD-40  
Category: C  
Quality Group: B

Function:

BFD-39 and BFD-34 are auxiliary feedwater pumps (motor driven) discharge check valves. BFD-35, 37, 40, and 42 are check valves in the auxiliary feedwater supply lines leading from the motor driven auxiliary feedwater pumps and act as redundant isolation valves in series with check valves BFD-79, 79-1, 79-2, and 79-3.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

These check valves are normally closed and have an emergency function to open when the AFW pumps (motor driven) are activated to provide condensate storage tank water to the steam generator. BFD-39 and BFD-34 are downstream of the AFW pump test recirculation lines thus precluding any exercising during monthly pump tests.

Part-stroke testing at cold shutdowns and full-stroke exercising at refueling outages is justified based upon the reasons given for the BFD-79 series valves.

Alternative Testing:

Part-stroke exercise the valves at cold shutdowns during operation of the auxiliary feedwater pumps. Full-stroke exercise the valves during refueling outages in conjunction with full flow test of the auxiliary feedwater pumps.

RELIEF REQUEST BASIS

SYSTEM: AFW

Relief Request: 014

Valves: BFD-31, BFD-47, 47-1, 47-2, 47-3  
Category: C  
Quality Group: B

Function:

Valve BFD-31 is an Auxiliary Feedwater (AFW) pump (turbine driven) discharge check valve. The BFD-47 series valves are in the AFW supply lines from the turbine driven pump and are redundant isolation valves in series with BFD-79 series valves. The valves are normally closed and have an emergency function to open when the turbine driven AFW pump is activated to provide condensate storage tank water to the steam generators.

Test Requirements: IWV-3520 (Exercise)

Basis for Relief:

Exercising these valves quarterly during normal operation is impractical for the reasons given for the BFD-79 series valves (i.e., thermal shocking of the SG tube sheet).

Full or part-stroke exercising of these valves at cold shutdowns is impractical because there is no steam present to run the turbine driven AFW pumps.

Alternative Testing:

These valves will be full-stroked exercised during refueling outages in conjunction with the full flow test of the turbine driven auxiliary feedwater pumps.

RELIEF REQUEST BASIS

SYSTEM: FW

Relief Request: 015

Valves: BFD-2-21 and BFD-2-22  
Category: B  
Quality Group: C

Function:

These are motor operated valves in the boiler feedwater pump discharge lines. They are open during power operations to supply feedwater to steam generators.

Test Requirements: IWV-3410 (Exercise)

Basis for Relief:

Exercising these valves quarterly is impractical during power operation as it would shut off the feedwater to steam generators and trip the plant.

Alternative Testing:

These valves will be full-stroke exercised at cold shutdowns.

RELIEF REQUEST BASIS

STEM: AFW

Relief Request: 016

Valves: FCV-405A, FCV-405B, FCV-405C, and FCV-405D  
FCV-406A, FCV-406B, FCV-406C, and FCV-406D  
Category: B  
Quality Group: C

Function:

These are flow control valves in the lines to the steam generators from the auxiliary feedwater pump discharge. They are normally open and fail-open valves. Their function is to remain open during the auxiliary feedwater to steam generator operation.

Test Requirements: IWV-3413 (Stroke Time)

Basis for Relief:

As stated above, these are normally open and fail-open valves. Their stroke time is manually adjustable in the control room. As such, the stroke-time testing is of no consequence.

Alternative Testing:

None.

RELIEF REQUEST BASIS

SYSTEM: FW

Relief Request: 017

Valves: BFD-6, BFD-6-1, BFD-6-2, BFD-6-3  
Category: C  
Quality Group: B

Function:

These check valves are in the supply lines from the main boiler feed pumps to the steam generators. They are normally open during operation and must close when feeding the steam generators with auxiliary feedwater.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

These check valves cannot be tested for closure during normal plant operations. When feeding steam generators for cold shutdown, leakage through the BFD-6 check valves may be detectable by pressure at the main boiler feed pump discharge. Positive identification of the leakage source normally requires check valve disassembly which may not be possible at all cold shutdowns.

Alternative Testing:

The valves will be included in the IP2 check valve sample disassembly/inspection program.

RELIEF REQUEST BASIS

SYSTEM: CVCS

Relief Request: 018

Valves: 201 and 202  
Category: A  
Quality Group: B

Function:

Valves 201 and 202 are containment isolation valves and function as remote manual letdown flow isolation valves in the letdown line to the nonregenerative heat exchanger.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

Part-stroke exercising of these valves is impractical since these are open or close only valves. Full-stroke exercising of these valves is also impractical during normal plant operation because it would inhibit the control of the reactor coolant level control system.

Alternative Testing:

These valves will be full-stroke exercised at cold shutdowns.

RELIEF REQUEST BASIS

SYSTEM: CVCS

Relief Request: 019

Valves: 205 and 226  
Category: A  
Quality Group: B

Function:

Valves 205 and 226 are remote manual flow isolation valves in the charging line leading to the regenerative heat exchangers.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

Part-stroke exercising of these valves is impractical because they are open and closed only valves. Full-stroke exercising of these valves quarterly during normal plant operation is impractical because it would inhibit the control of the reactor coolant level control system. Closing these valves at any time during normal plant operation would shut down the charging flow creating a potential for a low level reactor trip.

Alternative Testing:

These valves will be full-stroke exercised at cold shutdowns.

RELIEF REQUEST BASIS

STEM: CVCS

Relief Request: 020

Valve: 222  
Category: A  
Quality Group: B

Function:

Valve 222 is a flow shutoff valve in the RC pump seal water return line.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

Valve 222 is an open or closed only valve; therefore, part-stroke testing of this valve is impractical. This valve cannot be full-stroke exercised during normal plant operation because a loss of RC pump seal water flow would result, damaging the RC pumps.

Alternative Testing:

This valve will be full-stroke exercised at cold shutdowns provided the RC pumps are secured. If one or more RC pumps are not secured at cold shutdowns, the associated valves will be tested at intervals no greater than refuelings.

RELIEF REQUEST BASIS

SYSTEM: CVCS

Relief Request: 021

Valves: 4925, 4926, 4927, 4928, 250A, 250B, 250C, 250D  
Category: A  
Quality Group: B

Function:

These valves are flow isolation valves in the charging lines to the RC pump seals. They are normally open valves during normal plant operation.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

Because these valves are open and close only valves it is impractical to part-stroke these valves. Full-stroke exercising the valves quarterly during normal plant operation is also impractical since this action would perturb RC pump seal water flow and thus damage the seals as a result.

Alternative Testing:

These valves will be full-stroke exercised at cold shutdowns provided the RC pumps are secured. If one or more RC pumps are not secured at cold shutdowns, the associated valves will be tested at intervals no greater than refuelings.

RELIEF REQUEST BASIS

SYSTEM: CVCS

Relief Request: 022

Valves: 333  
Category: B  
Quality Group: B

Function:

Valve 333 is a motor-operated valve in the emergency boration line at the suction side of charging pumps. Its opening allows boric acid addition to the reactor coolant system, at the maximum rate available, if a reactivity excursion occurs.

Test Requirements: IWV-3410 (Exercise)

Basis for Relief:

Valve 333 is associated with the emergency boration path from the boric acid storage tanks. The boric acid storage tanks contain high concentrations of borated water for emergency shutdown purposes. Cycling 333 would result in aligning this source of high concentrated boric acid solution to the charging pump suction. Charging pump flow must be maintained to provide injection flow to the reactor coolant pump seals. Hence cycling this valve would result in a reactivity transient due to the injection of high concentrated boric acid solution which, if left unchecked, would cause a reactor shutdown. Such cycling during power operation is undesirable, hence cold shutdown cycling has been proposed. Cold shutdown testing will provide assurance that these valves will function as required.

Alternative Testing:

This valve will be full-stroke exercised during cold shutdowns.

RELIEF REQUEST BASIS

STEM: CVCS

Relief Request: 023

Valves: LCV-112B  
Category: B  
Quality Group: B

Function:

Valve LCV-112B is a normally closed air-operated valve in the refueling water supply line to the charging pump suction. Its opening may be necessary to allow refueling water supply to the reactor coolant system in certain emergency conditions.

Test Requirements: IWV-3410 (Exercise)

Basis for Relief:

Valves LCV-112B and 290 are associated with the emergency boration path from the refueling water storage tank. The refueling water storage tank contains high concentrations of borated water for emergency shutdown purposes. Cycling LCV-112B and 290 would result in aligning these sources of high concentrated boric acid solution to the charging pump suction. Charging pump flow must be maintained to provide injection flow to the reactor coolant pump seals. Hence cycling these valves would result in a reactivity transient due to the injection of high concentrated boric acid solution which, if left unchecked, would cause a reactor shutdown. Such cycling during power operation is undesirable, hence cold shutdown cycling has been proposed. Cold shutdown testing will provide assurance that these valves will function as required.

Alternative Testing:

This valve will be full-stroke exercised during cold shutdown.

RELIEF REQUEST BASIS

STEM: CVCS

Relief Request: 024

Valves: LCV-112C  
Category: B  
Quality Group: B

Function:

Valve LCV-112C is a normally open motor-operated valve at the suction of charging pumps from volume control tank. It is also required to remain open following engineered safeguards actuation and closes during the switchover of charging pump suction to RWST.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

Valve LCV-112C is in the suction line to charging pumps which provide for reactor coolant makeup and seal injection flow. The reactor coolant pump seals require injection flow whenever the pumps are operating. Stroking LCV-112C closed during normal operation would require realigning the charging pump suction to an alternate supply. Available alternate supplies from the refueling water storage tank and boric acid storage tanks both contain high concentrations of borated water which if injected, would result in a reactivity transient and eventual plant shutdown. Cold shutdown testing will provide assurance that these valves will function as required.

Alternative Testing:

This valve will be full-stroke exercised during cold shutdowns.

RELIEF REQUEST BASIS

STEM: CVCS

Relief Request: 025

Valves: 290  
Category: C  
Quality Group: B

Function:

The function of check valve 290 is to open whenever LCV-112B is open to supply refueling water to charging pumps suction. This occurs only during certain emergency operations.

Test Requirements: IWV-3520 (Exercise)

Basis for Relief:

Valves LCV-112B and 290 are associated with the emergency boration path from the refueling water storage tank. The refueling water storage tank contains high concentrations of borated water for emergency shutdown purposes. Cycling LCV-112 and 290 would result in aligning these sources of high concentrated boric acid solution to the charging pump suction. Charging pump flow must be maintained to provide injection flow to the reactor coolant pump seals. Hence cycling these valves would result in a reactivity transient due to the injection of high concentrated boric acid solution which, if left unchecked, would cause a reactor shutdown. Such cycling during power operation is undesirable, hence cold shutdown cycling has been proposed. Cold shutdown testing will provide assurance that these valves will function as required.

Alternative Testing:

Valve 290 will be exercised during cold shutdowns.

RELIEF REQUEST BASIS

STEM: CVCS

Relief Request: 026

Valve: 332  
Category: C  
Quality Group: B

Function:

Check valve 332 is located downstream of motor-operated valve 333 at the suction side of charging pumps. Its safety function is to open to facilitate emergency boration.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

System arrangement is such that valve 332 can not be exercised unless valve 333 is open to permit flow from the boric acid storage system. Aligning this flow path during power operation will result in a reactivity transient due to the introduction of highly concentrated boric acid solution from the boric acid storage system.

Alternative Testing:

Valve 332 will be full stroke exercised at cold shutdowns using primary water to the suction of the boric acid transfer pumps delivering to charging pumps for delivery to the RCS.

RELIEF REQUEST BASIS

SYSTEM: CVCS

Relief Request: 027

Valves: 4924  
Category: C  
Quality Group: B

Function:

Check valve 4924 is located in the emergency boration line to the suction of charging pumps. Its function is to open during emergency boration.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

System arrangement is such that this check valve can only be exercised when the emergency boration path is aligned. Aligning this path during power operation will result in a reactivity transient due to the introduction of highly concentrated boric acid solution from the boric acid storage system.

Alternative Testing:

Full stroke exercised at cold shutdowns using primary water to the suction of the boric acid transfer pumps delivering to charging pumps for delivery to the RCS.

RELIEF REQUEST BASIS

SYSTEM: AFW

Relief Request: 028

Valve: CT-26, CT-29, CT-32  
Category: C  
Quality Group: C

Function:

These valves are check valves in the suction lines of each of the auxiliary feedwater pumps. These suction lines connect to the main header leading from the condensate storage tank. Their function is to open when the auxiliary feed pumps operate either during normal start-up and shutdown of the reactor plant or following an accident requiring the use of the auxiliary feedwater system.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

These valves are part-stroke exercised during start-up and shutdown of the reactor plant and are therefore part-stroke exercised during cold shutdown. In addition these valves are part-stroke exercised during quarterly auxiliary feedwater pump testing.

Full flow testing of the auxiliary feedwater pump is conducted during refuelings. The pump suction check valves must necessarily be full-stroke exercised during this test. Full stroke exercising these auxiliary feedwater pump suction check valves requires that the associated auxiliary feedwater pump be operating. Operating these pumps during normal operation would interfere with automatic steam generator level control, likely causing a plant trip. The auxiliary feedwater pumps normally operate during start-up and shutdown, however, the pump flow rate (and hence the degree to which the suction check valves are exercised) is largely dependent on the conditions associated with the particular heatup or cooldown (e.g., the required heatup/cooldown rate and the particular auxiliary feedwater pumps that are operable and/or operating). In practice, during a typical heatup or cooldown auxiliary feedwater flow will be sufficient to full stroke exercise the suction check valves, however this cannot be guaranteed for all heatup and cooldowns. Accordingly, credit is taken for only

part-stroke exercising these valves at cold shutdowns. In addition to part-stroke exercising these valves during heatup/cooldown and full stroke exercising at refuelings, these valves are part-stroked quarterly during the auxiliary feedwater pump miniflow test. Flow rate through the suction check valves during the pump mini-flow tests is limited to a part-stroke exercise due to the size of the mini-flow test recirculation line. We believe the exercise program that these valves are subject to between refuelings provides adequate assurance that these valves will function as required.

In addition, NRC IE Bulletin 79-13 identified the potential for feedwater line cracking as a result of injecting relatively cold auxiliary feedwater (40 degrees to 60 degrees F) into relatively hot main feedwater piping (426 degrees F). In response to that bulletin Con Edison described the IP2 design and operational practices which we believe minimize the potential for such cracking. Indeed IP2 has experienced no such cracking to date. Full flow testing these valves at anytime other than refuelings is contrary to these successfully implemented practices intended to minimize the potential for thermal shock to the feedwater piping and steam generators.

#### Alternative Testing:

The three check valves will be part-stroke exercised during quarterly AFW pump testing and full-stroke exercised during the full-flow pump test at refuelings. In addition these valves are part-stroked at cold shutdowns as part of the normal AFW system operation.

RELIEF REQUEST BASIS

SYSTEM: AFW

Relief Request: 029

Valve: CT-25, CT-28, CT-31  
Category: C  
Quality Group: C

Function:

These check valves must open when water from the city water system is required to allow continued emergency operation of the auxiliary feedwater system for plant cooldown should the condensate storage tank empty.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

It is impractical to full flow test the operability of these valves at any time due to the stringent chemistry requirements of the boiler feedwater system. Allowing city water to flow past these valves would contaminate the boiler feedwater system and steam generators.

Alternative Testing:

The city water supply serves as an unlikely back-up to the inventory in the condensate storage tank. The condensate storage tank is the primary source of auxiliary feedwater. The supply line from the condensate storage tank to the auxiliary feedwater pumps is independent of the city water supply line and hence does not require the use of either CT-25, 28 or 31. No credit is taken for the city water supply to the auxiliary feedwater pumps in the FSAR safety-analyses. In addition there are other sources of auxiliary feedwater available that do not require the use of CT-25, 28 or 31, these include large inventories available in the condenser hotwells and the Indian Point Unit No. 1 water factory.

The installation of test connections to facilitate part-stroke testing have been determined impractical due to physical piping/valve arrangement. Recognizing the several sources of alternate supplies of auxiliary feedwater, the high likelihood that the city water supply will never be called upon, and the hardship that would be imposed in order to accomplish full flow testing, we believe that periodic disassembly of these valves at five year intervals, sufficient to verify disk freedom of movement is a practical alternative.

NRC has determined that a sample disassembly inspection program where one valve of the group is disassembled/inspected to demonstrate operability each refueling outage until all valves in the group are inspected is an acceptable alternative. Accordingly, one valve of the group will be disassembled/inspected, each refueling outage. After all three valves have been disassembled/inspected, and assuming the inspection results warrant, a report may be submitted to NRC requesting relief (for justification) to longer intervals between test.

RELIEF REQUEST BASIS

SYSTEM: HVAC

Relief Request: 030

Valves: FCV-1170, 1171, 1172, 1173  
Category: A  
Quality Group: None

Function:

These valves are containment isolation valves in the containment purge system.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

These valves are normally closed during power operation and have a safety function to close; therefore, they are generally considered passive valves. An administrative goal has been established to limit the amount of time these valves may be open during plant operation. As such exercising will be accomplished at cold shutdowns.

Alternative Testing:

These valves will be full-stroke exercised at cold shutdowns.

RELIEF REQUEST BASIS

SYSTEM: EDG

Relief Request: 031

Valves: LCV-1207A,B, -1208A,B, -1209A,B,  
Category: B  
Quality Group: NONE

Function:

These are parallel level control valves associated with each of the three diesel generator fuel oil day tanks. They function to maintain level in each fuel oil day tank.

Test Requirement: IWV-3413 stroke time

Basis for Relief:

These valves are operated from level controllers, associated with each diesel's fuel oil day tank. The level controllers function automatically signaling the valves open/closed depending on tank level. There is no manual control switch associated with these valves, hence there is no means to initiate valve cycling manually for purposes of measuring stroke time. Credit is taken for stroking these valves during performance of the diesel generator surveillance test. Redundant tank level indication is provided to alert the operator to a low level condition in any day tank.

Alternative Testing:

These valves are exercised during diesel generator surveillance tests.

RELIEF REQUEST BASIS

SYSTEM: HR

Relief Request: 032

Valve: 1880A, 1880B, 1879A, 1879B  
Category: C  
Quality Group: B

Function:

These valves are check valves in the lines leading to the nozzles of the two hydrogen recombiners. These valves have a safety function to open when the system is placed into operation.

Test Requirement: IWV-3520 (Exercising)

Basis for Relief:

These valves are located inside containment. The capability of these valves to function is normally checked by proper operation of the recombiner. It is impractical to test these valves during normal operations because they are inside containment and the recombiner is not tested during plant operation.

Alternative Testing:

These valves will be exercised during cold shutdown.

RELIEF REQUEST BASIS

SYSTEM: HR

Relief Request: 033

Valves: 1881C, 1881A, 1881D  
Category: C  
Quality Group: B

Function:

These valves are check valves in the lines leading from the oxygen, hydrogen and nitrogen supply lines, respectively. The oxygen and hydrogen are necessary for proper recombiner operation. The nitrogen is used to test the system flow paths and to purge the system after use. These valves must open when the system is in operation.

Test Requirement: IWV-3520 (Exercising)

Basis for Relief:

As in Relief Request No. 2 for this system, these lines are brought into service only during operation of the hydrogen recombiner. This test is conducted during refuelings and proper operation (i.e., pressures) ensures the functioning of these check valves.

Alternative Testing:

These valves will be exercised during cold shutdown.

RELIEF REQUEST BASIS

SYSTEM: IA

Relief Request: 034

Valve: PCV-1228  
Category: A  
Quality Group: A

Function:

PCV-1228 is a CIV in the Instrument Air System (Post Accident Venting Supply). This valve is normally open during power operation.

Testing Requirement: IWV-3410 (Exercise)

Basis for Relief:

This valve is an open or close only valve so that part-stroke exercising is impractical. Full-stroke exercising the valve quarterly during power operations or at cold shutdowns is also impractical because it shuts off the operating air supply to the valves inside containment that may be required to function during both power and cold shutdown operations.

Alternative Testing:

This valve will be full-stroke exercised at refueling outages.

RELIEF REQUEST BASIS

STEM: IA

Relief Request: 035

Valve: IA-39  
Category: AC  
Quality Group: A

Function:

IA-39 is a CIV (check valve) in the Instrument Air System (Post Accident Venting Supply) leading to the containment building. This valve is normally open.

Test Requirement: IWV-3410, IWV-3520 (Exercise)

Basis for Relief:

Exercising the valve closed would require securing the operating air supply to the other valves in the containment which are required to be operational during power and cold shutdown operations. Also, existing plant design and construction provides no means for indication or verification of check valve disk motion in either direction. The proper position for satisfying the containment isolation function is confirmed by acceptable Category A valve leak rate testing results. Relief from full-stroke exercising of this valve is therefore requested.

Alternative Testing:

Verification of proper valve operation will be made during Category A leak testing requirements of IWV-3420.

RELIEF REQUEST BASIS

SYSTEM: IA

Relief Request: 036

Valve: IA-20  
Category: C  
Quality Group: None

Function:

IA-20 is a check valve in the intertie line and acts as a boundary between the instrument air system and station air and Unit #1 control air systems.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

This valve is normally open when Unit #1 control air is backup for the instrument air system and normally closed when instrument air is supplying the header. As such, the valve is required to be tested in both directions. The valve has no installed instrumentation with which to verify the full open position. Shutting down or isolating the control air header to observe evidence of valve closure would not always be practical in cold shutdown situations when Unit #1 control air is supplying the instrument air system.

Alternative Testing:

Valve IA-20 will be included in the IP2 check valve sample disassembly/inspection program.

RELIEF REQUEST BASIS

STEM: IVSW

Relief Request: 037

Valve: 1500-1543, 1545-1550, 5602, 1406, 1456  
Category: C  
Quality Group: None

Function:

These valves are check valves in the lines leading to the various CIVs. Their function is to open following a containment isolation signal to provide a pressurized water or nitrogen seal between the containment isolation valves.

Test Requirement: IWV-3520

Basis for Relief:

These valves form a boundary between the IVSW system and the process lines served by the IVSW system. The test connections installed to permit flow testing these check valves are located between their respective check valve and the process lines being served. With the process line in service flow verification of these valves is precluded by the process fluid effluxing through the test connection. As such, these valves can only be exercised at refuelings.

In addition the Isolation Valve Seal Water System serves a containment isolation function. As such, it is appropriately tested at a frequency consistent with leak testing of the associated CIVs, on a refueling basis, consistent with 10CFR50 Appendix J, Type C requirements.

Alternative Testing:

Exercised at refuelings.

RELIEF REQUEST BASIS

SYSTEM: IVSW

Relief Request: 038

Valve: 3500-3519  
Category: B  
Quality Group: None

Function:

These valves are remote manual solenoids in the lines leading to various CIVs. Their function is to provide a pressurized water or nitrogen seal between the CIVs.

Test Requirement:

IWV-3300 (Position Indication Verification)  
IWV-3410 (Exercise)

Basis for Relief:

These valves are physically sealed making a visual physical verification of valve position impossible. For the reasons noted in Relief Request 036, these valves will be exercised at a refueling frequency by establishing flow through their respective valve.

Alternative Testing:

Exercise at refuelings

RELIEF REQUEST BASIS

SYSTEM: MS

Relief Request: 039

Valves: MS-1-21, 22, 23, 24  
Category: BC  
Quality Group: B

Function:

These valves are stop check valves with the pneumatic operators holding the valve disks out of the main steam flow path.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

These MSIV's cannot be full-stroke or part-stroke exercised quarterly because to do so would cause a reactor trip. The reactor trip would be caused by the turbine tripping off line. The turbine trip is caused by a Valve Position Change Signal.

The Technical Specifications require these valves be full-stroke tested and timed to their safe position during refuelings.

Alternative Testing:

These valves will be full-stroke exercised and timed at cold shutdowns.

RELIEF REQUEST BASIS

STEM: MS

Relief Request: 040

Valves: PCV-1134, 1135, 1136, 1137  
Category: B (active)  
Quality Group: B

Function:

These valves are atmospheric steam dump valves and are located outside of containment. They are used to manually control reactor cooldown and are used during the natural circulation mode of reactor cooldown.

Test Requirement: IWV-3140 (Exercise)

Basis for Relief:

These valves are remote manual rheostat controlled valves and are operated from the control room. It is impractical to exercise these valves during normal plant operations due to the steam flow that would ensue. It is impractical to time these valves because they can act as throttle valves and are fully opened or closed only by operator action. Due to the rheostat control of these valves reproducible times would not generally be obtainable.

Alternative Testing:

These valves will be full-stroke exercised during cold shutdowns. These valves will not be timed during this exercise test.

RELIEF REQUEST BASIS

SYSTEM: MS

Relief Request: 041

Valve: PCV-1133  
Category: B  
Quality Group: C

Function:

This valve is a pressure control valve in the main steam line leading to the priming ejectors. This valve has an emergency function to close on high radiation.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

Exercising this valve during normal operations is impractical because it would require securing the priming ejectors during the test or disrupting steam flow should the valve fail to reopen. Due to the function of the valve (i.e., pressure regulation) it is part-stroked at indeterminate times during normal operation.

Alternative Testing:

This valve will be full-stroke exercised and timed at cold shutdowns.

RELIEF REQUEST BASIS

STEM: MS

Relief Request: 042

Valves: MS-2A, MS-2B, MS-2C, MS-2D  
Category: C  
Quality Group: B

Function:

These valves are reverse current check valves in the main steam line from each steam generator. The four main steam lines are headered together. A steamline break upstream of an MS-2 valve would permit the other three steam generators to feed the break. Closure of the MS-2 valves under such a scenario limits the break flow (and the cooldown) to that associated with a single steam generator. As such, the safety function of these valves is to close.

Test Requirement: IWV-3522(a)

Basis for Relief:

These valves are normally open during power operation passing nuclear generated steam to the turbine-generator unit. There are no means available to physically stroke these valves either on-line or off-line. However, as they are normally open check valves and are equipped with external position indication that is physically observable, physical observation to assure these valves are in the closed position can be verified at cold shutdown.

Alternative Testing:

These valves will be verified closed at cold shutdowns.

RELIEF REQUEST BASIS

SYSTEM: WCPS

Relief Request: 043

Valves: 85A, 85B, 95A, 95B  
Category: AC  
Quality Group: None

Function:

These check valves function as CIVs for the airlocks.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

There are no positive means available for exercising these valves. Proper operation may be deduced when making periodic entries to containment. In addition the Appendix J tests for leak rate serve to verify the operability of these valves.

Alternative Testing:

Leak test per Appendix J.

RELIEF REQUEST BASIS

SYSTEM: WCPS

Relief Request: 044

Valves: 85C, 85D, 95C, 95D  
Category: A  
Quality Group: None

Function:

These equalizing ball valves function as CIVs for the airlocks.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

There are no positive means available for exercising these valves. Proper operation may be deduced when making periodic entries to containment. In addition the Appendix J tests for leak rate serve to verify the operability of these valves.

Alternative Testing:

Leak test per Appendix J.

RELIEF REQUEST BASIS

STEM: PACV

Relief Request: 045

Valves: FCV-1308, & FCV-1309  
Category: B  
Quality Group: None

Function:

These valves are remotely operated, flow control valves in the post-accident containment vent exhaust lines. Their function is to facilitate flow control when post-accident venting is required.

Test Requirement: IWV-3300 - Position Indication Verification

Basis for Relief:

The control system for these valves provides for demand position indication only. The valve is physically sealed such that position indication by visual observation is not possible. No direct position indication (e.g. limit switch, indicating lights etc.) is provided to establish stem/disk position. The system requires a delta-p in excess of 2 psig in order to establish flow; this is in excess of the normal operating pressure for containment, precluding position indication on a quarterly or refueling basis. In addition the rate of valve movement is dependent on the rate of changes of the manually operated control system, thus valve timing has no significance.

Alternative Testing:

These valves will be exercised quarterly with position indication determined using the demand position. In addition these valves will be exercised during refuelings by pressurizing the line upstream (containment side) and verifying a prompt change in pressure or flow upon stroking the valve open in order to verify the adequacy of the valve demand position indication (IWV-3300).

The ILRT will be utilized as the pressurizing medium during those refuelings that the ILRT is required to be performed.

RELIEF REQUEST BASIS

SYSTEM: RCS

Relief Request: 046

Valves: 535, 536, PCV-456, PCV-455C  
Category: B  
Quality Group: A

Function:

These valves function as part of the low temperature over pressurization protection system. They also operate during power operation to limit any pressure excursion and thus limit the operation of the spring loaded pressurizer safety valves. Valves 535 and 536 are normally open block valves and PCV-456 and PCV-455C are normally shut pressure relief valves.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

Valves 535 and 536 are motor operated block valves and are normally open. They are closed when excessive leakage from the downstream power operated relief valves (PCV-456, 455C) exists. These valves are required to function, as part of the overpressure protection system, and as part of the RCS vent system, post-accident.

Alternative Testing:

Part-stroke exercising these valves at any time is impractical because these are open or close only valves. Consistent with the criteria contained in NRC's SER for the Remote Reactor Head Vent (NRC, Varga to Con Ed, O'Toole, dated September 9, 1983) valves PCV-455C and PCV-456 will be exercised at cold shutdowns. Valves 535 and 536 will be exercised and stroke time quarterly when maintained in the closed position for durations of 90 days or greater.

PCV-455C and PCV-456 will be full-stroke exercised at cold shutdowns. Valves 535 and 536 will be exercised and stroke timed quarterly when maintained in the closed position for durations of 90 days or greater. When maintained in the open position for durations less than 90 days exercising and stroke timing will be at a cold shutdown frequency.

RELIEF REQUEST BASIS

SYSTEM: RCS

Relief Request: 047

Valves: HCV-3100, 3101  
Category: B  
Quality Group: A

Function:

These valves are motor operated pressure isolation valves in the reactor coolant system, and act as part of the vessel head vent portion. These valves are normally closed during normal plant operation. These valves are opened when it is necessary to vent the reactor vessel head.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

These valves were installed as part of the TMI action items and are required to be operable during normal plant operations. Consistent with NRC's SER for this system (NRC, Varga to Con Ed, O'Toole, dated September 9, 1983) these valves will be stroked at cold shutdowns.

Alternative Testing:

These valves will be full-stroke exercised at cold shutdowns.

RELIEF REQUEST BASIS

SYSTEM: RCS

Relief Request: 048

Valves: 838A, 838B, 838C, and 838D  
Category: AC  
Quality Group: A

Function:

Valves 838A, 838B, 838C, and 838D are pressure isolation valves in the cold leg injection lines from the recirculation pumps and Residual Heat Removal pumps whose function is to open to permit flow from these pumps in the LPSI mode following a LOCA.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

Valves 838A through 838D are in the flowpaths from the recirculation pumps and RHR pumps. The system configuration is such that the only practical way the valves can be exercised is by putting flow through them from one of the above listed pumps.

Alternative Testing:

Valves 838A through 838D will be full-stroke exercised during cold shutdowns when the RHR mode of cooling is in progress.

RELIEF REQUEST BASIS

SYSTEM: CSS

Relief Request: 049

Valve: 867A and B  
Category: AC  
Quality Group: B

Function:

Valve 867A and B are Containment Spray discharge check valves in the lines leading to the containment spray headers. They are closed during plant operation and required to open when the containment spray pumps are activated to supply refueling water storage tank (RWST) water/spray additive to the containment spray headers.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

These valves are located downstream of the containment spray pump mini-flow test line and because of this cannot be part-stroke exercised quarterly during the mini-flow test of the containment spray pumps. These valves can be full-stroke exercised at refuelings through a disconnect that allows for operations other than containment spray.

Alternative Testing:

This valve will be full-stroke exercised at refueling outages.

RELIEF REQUEST BASIS

SYSTEM: SIS

Relief Request: 050

Valves: 856B and 856F  
Category: B  
Quality Group: B

Function:

These are shutoff valves in the Safety Injection lines leading to the hot legs of the Reactor Coolant System. They are normally closed and have a safety function to open approximately 24 hours after the cold leg injection has been initiated.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

Valves 856B and 856F are only capable of being full-stroke exercised. Full-stroke exercising these valves quarterly during normal plant operation would be impractical in that a failure of these valves concurrent with a loss of coolant accident (LOCA) can result in a steam binding effect which would prevent adequate cooling water from reaching the core.

Alternative Testing:

These valves will be full-stroke exercised at cold shutdowns.

RELIEF REQUEST BASIS

SYSTEM: SIS

Relief Request: 051

Valves: 856A, 856C, 856D, 856E  
Category: B  
Quality Group: B

Function:

These valves are flow isolation valves in the SI lines leading to the cold legs of the Reactor Coolant System. These valves are normally open and have a function to close when hot leg safety injection, during the recirculation phase of Safety Injection, is required.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

These valve are open or closed only valves; therefore, part-stroke exercising these valves is impractical. Full-stroke exercising these valves quarterly during normal plant operations is impractical because these valves are normally locked open and are required to be open during an emergency situation utilizing the SI system. Failure of one of these valves is in the closed position will place the plant in a less conservative condition that may eventually cause plant shutdown.

Alternative Testing:

These valves will be full-stroke exercised during cold shutdowns.

RELIEF REQUEST BASIS

SYSTEM: SIS

Relief Request: 052

Valves: 842 and 843  
Category: B (passive)  
Quality Group: B

Function:

These valves are located in the mini-flow return line from the discharge of the safety injection pumps to the RWST. They are motor operated valves and are locked open during normal plant operation. They have a function to close at some time after initiation of SI.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

These valves are open or closed only valves; therefore, part-stroke exercising them is impractical. Full-stroke exercising the valves quarterly could compromise the SI pump operation if the valves were in a closed position. If the valves were in the closed position and the pumps were started, the result would be a dead head condition which most likely would cause damage to the pumps.

Alternative Testing:

These valves will be full-stroke exercised at cold shutdowns.

RELIEF REQUEST BASIS

STEM: RCS

Relief Request: 053

Valves: 857A, 857B, 857C, 857D, 857G, 857H, 857M, 857F  
Category: AC  
Quality Group: A

Function:

Valves 857A, 857B, 857C, and 857D are pressure isolation check valves in the injection lines to the RCS and are at the interface of the RCS and the Safety Injection System. Valves 857M, 857F, 857G, and 857H are upstream and in series with 857A, 857B, 857C, and 857D, respectively. All valves have the function of opening in order to permit flow from the High Pressure Safety Injection (HPSI) pumps into the RCS following a LOCA.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

During normal plant operation, valves 857A, 857B, 857C, and 857D are held closed by RCS pressure of approximately 2200 psig. The HPSI pumps do not have the pressure capability (design discharge pressure approximately 1700 psig) to overcome the RCS pressure and establish flow through the check valves. In addition, during cold shutdowns, part of the temperature and overpressure protection requirements provides that HPSI pumps be deactivated when the RCS is pressurized and below 1900 psig. This is to prevent an inadvertent pressurization of the RCS by HPSI pumps at this time. Therefore, flow cannot be established through the check valves by the HPSI pumps during these cold shutdowns. Since valves 857M, 857F, 857G, and 857H are upstream and in series with 857A, 857B, 857C, and 857D, respectively, the same basis for relief applies.

Alternative Testing:

Valves 857A, 857B, 857C, 857D, 857M, 858F, 857G, and 857H will be full-stroke exercised at refuelings.

RELIEF REQUEST BASIS

SYSTEM: RCS

Relief Request: 054

Valves: 857J, 857K  
Category: AC  
Quality Group: A

Function:

Valves 857J and K are pressure isolation check valves in the cold leg injection lines from the HPSI pumps. They are closed during normal plant operation and their emergency function is to open to permit flow from the HPSI pumps to the RCS following a LOCA.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

The SIS configuration is such that the only practical way the valves can be exercised is by activating the HPSI pumps and establishing flow through the valves. During normal plant operation, the RCS pressure is approximately 2200 psig. The HPSI pumps do not have the pressure capability (design discharge pressure approximately 1700 psig) to overcome the RCS pressure and establish flow through the check valves. In addition, part of the temperature over pressure protection requirements at cold shutdowns is such that the HPSI pumps be deactivated when the RCS is pressurized and below 1900 psig. This is to prevent an inadvertent pressurization of the RCS by the HPSI pumps at this time. Therefore, flow cannot be established through the check valves by the HPSI pumps during cold shutdowns.

Alternative Testing:

Valves 857J and 857K will be full-stroke exercised at refuelings.

RELIEF REQUEST BASIS

SYSTEM: SIS

Relief Request: 055

Valves: 857E, 857L  
Category: C  
Quality Group: B

Function:

Valves 857E and L are check valves in the cold leg injection lines from the HPSI pumps. They are closed during normal plant operation and their emergency function is to open to permit flow from the HPSI pumps to the RCS following a LOCA.

Test Requirements: IWV-3520 (Exercise)

Basis for Relief:

The SIS configuration is such that the only practical way the valves can be exercised is by activating the HPSI pumps and establishing flow through the valves. During normal plant operation, the RCS pressure is approximately 2200 psig. The HPSI pumps do not have the pressure capability (design discharge pressure approximately 1700 psig) to overcome the RCS pressure and establish flow through the check valves. In addition, part of the temperature over pressure protection requirements at cold shutdowns is such that the HPSI pumps be deactivated when the RCS is pressurized and below 1900 psig. This is to prevent an inadvertent pressurization of the RCS by the HPSI pumps at this time. Therefore, flow cannot be established through the check valves by the HPSI pumps during cold shutdowns.

Alternative Testing:

Valves 857E and 857L will be full-stroke exercised at refuelings.

RELIEF REQUEST BASIS

SYSTEM: SIS

Relief Request: 056

Valves: 886A and 886B  
Category: C  
Quality Group: B

Function:

These valves are recirculation outlet check valves from the internal recirculation pumps of the SIS. They are normally closed and have a function of opening when the recirculation pumps are activated.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

When the recirculation pumps are activated, the recirculation mode from the recirculation sump to the RCS, is established. Valves 886A and 886B are located inside containment, therefore, the only means of exercising them is by activating the recirculation pumps.

Full-stroke exercising these valves quarterly during normal plant operations or during any other condition is impractical since the recirculation pumps are in a normally dry recirculation sump. Operation of these pumps in a dry condition will damage the pumps. For the reasons discussed in pump Relief Request R-R1, there is no practical means available to permit full flow operation of the recirculation pumps and hence no practical means of full flow exercising these check valves. Part-stroke exercising during the mini-flow test of the recirculation pumps is the only practical means of exercising these valves.

Alternative Testing:

Valves 886A and 886B will be included in the IP2 check valve sample Disassembly/Inspection Program.

RELIEF REQUEST BASIS

SYSTEM: SIS

Relief Request: 057

Valve: 881  
Category: C  
Quality Group: B

Function:

Valve 881 is a recirculation inlet line check valve to the RHR pumps from the Refueling Water Storage Tank. The valve is normally closed and has the function of opening when the RHR pumps are used in the LPSI mode.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

This valve cannot be part-stroke exercised quarterly during the RHR pump mini-flow test because the test line taps in downstream of this valve. Although an 8 inch bypass line is provided around the RHR pumps for the purpose of pumping refueling water back to the RWST following refueling operations, its use during normal operations would render both RHR pumps inoperable in the LPSI mode. This line could potentially serve to permit part-stroke exercising of valve 881 during cold shutdowns when RHR pump operability is not required by Tech. Spec., however, the duration of a typical cold shutdown is such that the decay heat load is sufficiently large so as to preclude diverting any significant flow from the discharge header.

Alternative Testing:

Valve 881 will be exercised (nominally full-stroked) at refuelings using the RHR pumps to refill the primary system.

RELIEF REQUEST BASIS

SYSTEM: SIS

Relief Request: 058

Valve: 847  
Category: C  
Quality Group: B

Function:

Valve 847 is a check valve located at the inlet to the Safety Injection pumps from the Refueling Water Storage Tank (RWST) whose function is to open upon activation of the safety injection pumps.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

The only practical means to exercise this check valve is to activate the Safety Injection pumps and flow water from the RWST to the Reactor Coolant System (RCS). Full-stroke exercising the valve quarterly while the plant is at normal operating power is impractical in that the RCS pressure is at approximately 2250 psig and this pressure locks out the check valve at the RCS/SIS interface that is downstream and in series with the subject check valve. The head available from the SI pumps is not enough to overcome the RCS pressure, thereby preventing flow. It is also impractical to exercise the valve at cold shutdowns. The SI pumps are deactivated when the RCS pressure goes below 1900 psig as part of the overpressure protection requirements.

Alternative Testing:

Valve 847 will be part-stroke exercised quarterly during SI pump tests and will be full-stroke exercised at refueling outages.

RELIEF REQUEST BASIS

SYSTEM: SIS

Relief Request: 059

Valve: 849A, 849B, 852A, 852B, 5220  
Category: C  
Quality Group: B

14

Function:

These valves are check valves located at the outlet of the SI pumps. They are normally closed and have a function of opening upon actuation of the Safety Injection pumps.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

Full-stroke exercising these valves quarterly while the plant is at normal operating power is impractical in that the RCS pressure is at approximately 2250 psig. This pressure locks out these check valves at the RCS/SIS interface that is downstream and in series with the subject check valves. The head available from the Safety Injection pumps is not great enough to overcome the RCS pressure, thereby preventing flow. It is also impractical to exercise these valves at cold shutdowns since the SI pumps are deactivated when the RCS pressure goes below 1900 psig as part of the low temperature over-pressurization protection requirements.

Alternative Testing:

Valves 849A, 849B, 852A, 852B, and 5220 will be full-stroke exercised at refueling outages.

14

RELIEF REQUEST BASIS

SYSTEM: SIS

Relief Request: 060

Valves: 895A, 895B, 895C, 895D  
Category: C  
Quality Group: A

Function:

These valves are pressure isolation check valves in the outlet lines from the accumulators (one per accumulator). They are closed during normal plant operation and their emergency function is to open following a LOCA (RCS pressure drops below approximately 650 psig) to allow water from the accumulators to transfer to the RCS.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

The SIS configuration is such that the only practical way the valves can be exercised is by blowing down water from the accumulators to the RCS. 895A through 895D are upstream and in series with 897A through 897D which are held closed at this condition by a differential pressure of about 1550 psig (RCS at 220 psig vs. accumulators at 640 psig). Therefore, flow cannot be established from the accumulators during normal power conditions.

Part of the low temperature over-pressurization protection requirements at cold shutdowns are that MOV's 894A through 894D be closed when the RCS pressure is reduced below 1000 psig. These MOV's are in the accumulator outlet lines and are upstream and in series with the subject check valves; therefore, flow cannot be established from the accumulators during these cold shutdown conditions.

Alternative Testing:

These valves will be included in the IP2 check valve sample Disassembly/Inspection Program.

RELIEF REQUEST BASIS

SYSTEM: CSS

Relief Request: 061

Valves: 879A and 879B  
Category: C  
Quality Group: B

Function:

These valves are 2" Rockwell, canopy, seal-welded spring loaded check valves in the lines leading from the containment spray pumps to the charcoal filter fire protection nozzles. Their function is to open if filter dousing is initiated because of high temperature in a filter unit. These valves are normally closed.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

The only function of these valves is to open in the extremely unlikely event that a charcoal filter fire occurs. Because of their position in the containment spray system, it is impossible to operationally full-stroke these valves except by the initiation of containment spray, which is not practical. Also, these valves cannot be part-stroke exercised during the CS pump mini-flow test. In addition, exercising these valves by operation of the system would require opening the downstream isolation valves and dousing the charcoal filter with water.

Alternative Testing:

These valves will be included in the IP2 check valve sample Disassembly/Inspection Program.

RELIEF REQUEST BASIS

SYSTEM: SIS

Relief Request: 062

Valve: 882  
Category: B  
Quality Group: B

Function:

This valve is located in the supply line from the RWST to the RHR pumps. The valve is normally deenergized open to ensure flow to the RHR pumps for low-head SI. The valve must close during recirculation from the containment sump to the RHR pumps.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

This valve is deenergized open during normal plant operations to ensure proper operability of the RHR system following an accident. Failure of this valve in the closed position during normal operations would preclude the proper operation of the system.

Alternative Testing:

This valve will be full-stroke exercised at cold shutdowns.

RELIEF REQUEST BASIS

SYSTEM: SIS

Relief Request: 063

Valve: 1810  
Category: B  
Quality Group: B

Function:

This valve is located in the water supply leading to the SI pumps from the RWST. It is normally deenergized open, however, following an accident where the SI piping is broken downstream of valves 888A and B; this valve is required to shut and valve 898 manually opened.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

This valve is required by procedure to be deenergized open during normal plant operations to ensure water flow from the RWST to the SI pumps. Because it is a single valve in this line, failure of this valve in the shut position would cause the failure of the SI system and cause the plant to shutdown.

Alternative Testing:

This valve will be full-stroke exercised at cold shutdowns.

RELIEF REQUEST BASIS

SYSTEM: SIS

Relief Request: 064

Valves: 1802A, 1802B  
Category: B  
Quality Group: B

Function:

These valves are redundant parallel valves on the discharge of the containment internal recirculation pumps. They are normally closed and have a safety function to open when the recirculation pumps are put into service during the recirculation phase of a loss of coolant accident. The recirculation pump header is provided with a normally open bypass line back to the sump to prevent dead heading the pumps. The elevation and piping arrangement from the RWST is such that with either valve 1802A or 1802B open the RWST would drain to the recirculation sump via the open bypass line with the potential for flooding the containment.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

Opening either valve during normal plant operation will cause the RWST to drain to containment. The only time the RWST is drained sufficiently to permit stroking 1802A and 1802B is at refuelings.

Alternative Testing:

These valves will be full-stroke exercised at refuelings.

RELIEF REQUEST BASIS

SYSTEM: CSS

Relief Request: 065

Valves: 880A - 880K  
Category: B  
Quality Group: B

Function:

Valves 880A through 880K are non-automatic motor operated valves in the line from the Containment Spray header to the charcoal filter fire protection nozzles. These valves are closed during plant operation and are required to open in the unlikely event of a high temperature condition (fire) in a filter unit during a design basis event.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

The only function of these valves is to open in the unlikely event that a charcoal filter fire occurs. During normal operation these valves are maintained in the closed position to assure that no water enters the charcoal beds which could degrade charcoal performance. The piping arrangement is such that a standing head of water can accumulate behind these valves with no means of draining this water off prior to cycling the valves. Thus quarterly cycling would likely result in water entering the charcoal beds which is unacceptable.

Alternative Testing:

These valves will be full stroke exercised at refuelings prior to charcoal filter performance testing such that if charcoal filter degradation occurs appropriate corrective actions can be instituted prior to return to power operation.

RELIEF REQUEST BASIS

SYSTEM: RCS

Relief Request: 066

Valves: 897A, 897B, 897C, and 897D  
Category: AC  
Quality Group: A

Function:

Valves 897A through 897D are pressure isolation check valves in the cold leg injection lines to the Reactor Coolant System (RCS) and are at the interface of the RCS and the Safety Injection System (SIS). Their emergency function is to open to permit flow from the SIS into the RCS following a LOCA.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

Valves 897A and 897C are in the flowpaths from the High Pressure Safety Injection (HPSI) pumps, the recirculation pumps, RHR pumps and from their respective accumulators. The system configuration is such that the only practical way the valves can be fully exercised is by putting flow through them from one of the SI pumps or accumulators.

During normal power operations, the RCS pressure is approximately 2200 psig. None of the SI pumps or accumulators have the pressure capability to overcome the RCS pressure in order to establish flow through the check valves. RHR flow at cold shutdown has been ruled inadequate for full exercise.

Alternative Testing:

Valves 897A through 897D will be included in the IP2 check valve sample Disassembly/Inspection Program.

RELIEF REQUEST BASIS

SYSTEM: SW

Relief Request: 067

Valves: FCV-1111 and FCV-1112  
Category: B  
Quality Group: C

Function:

These valves are manual flow isolation valves in the normal service water supply to the conventional plant equipment.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

One of these valves is normally open during normal plant operation and the other normally closed. The open valve is closed at some time following an accident condition. Full or part-stroke exercising the open valve during normal plant operation is impractical because doing so would reduce or secure flow to plant equipment requiring this cooling water. This could cause damage to this plant equipment (e.g. turbine hydrogen coolers).

Alternative Testing:

These valves will be full-stroke exercised at those cold shutdowns when the conventional plant equipment is not in use. In addition these valves may be stroked during plant operation during those infrequent instances when it becomes necessary to realign service water system headers.

RELIEF REQUEST BASIS

SYSTEM: SW

Relief Request: 068

Valves: TCV-1104, TCV-1105  
Category: B or BP depending on normal position  
Quality Group: C

Function:

These valves are flow control valves for the service water flow through the containment fan coolers. The original system configuration maintained these valves in the normally closed position and provided a safety injection signal to open these valves fully in the event of an accident. Experience with the system has demonstrated the desirability of maintaining these valves open during normal operation, maximizing system flow in order to minimize material degradation due to the brackish water being pumped.

Test Requirement: IWV-3410 (Exercise)

When operated normally closed, these valves will be exercised quarterly. However, when operated normally open these valves are considered passive as their safety function is to open. Therefore, when operated normally open, no valve exercising need be required.

Alternative Testing:

As described above.

RELIEF REQUEST BASIS

STEM: SW

Relief Request: 069

Valves: SWN-543, 548, 553, 558, 563, 568, 539, 544,  
549, 554, 559, and 564

Category: C

Quality Group: None

Function:

These check valves are used in the supply of laval separator flush water when the Aurora Service Water Pumps are installed. Other service water pumps do not use this flush water configuration.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

These check valves can not be tested during normal operation or cold shutdown because it is not possible to prove that the check valve disk moves promptly to the seat or away from the seat when service water is adjusted. A small sight glass gives indication of flow, but this flow may not be full flow.

Present preventative maintenance procedures at Indian Point Unit #2 require that the check valves be periodically replaced.

Alternative Testing:

The valves will be included in the IP2 check valve sample disassembly/inspection program with the following exception: The check valves will be replaced rather than examined and returned to service.

RELIEF REQUEST BASIS

SYSTEM: N2

Relief Request: 071

Valves: 4107 and 4108  
Category: C  
Quality Group: None

Function:

Check valves open to allow pressure to Nitrogen Accumulators which are used for operation of the PORV's. Check valves close in the event of upstream line break to maintain accumulator pressure.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

Valves in containment and not accessible during reactor operation. Testing requires manual valve isolation and nitrogen line venting inside containment.

Alternate Testing:

Valves will be tested in cold shutdown.

RELIEF REQUEST BASIS

SYSTEM: AFW

Relief Request: 074

Valves: CT-85 and CT-85-1  
Category: C  
Quality Group: C

Function:

Check valve is open when pump is operating to allow recirculation flow from pump discharge to pump suction.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

There are no positive means to verify that the disk moves promptly away from the seat when flow through the valve is initiated.

Alternate Testing:

These valves will be included in the Check Valve Sample Disassembly/Inspection Program.

RELIEF REQUEST BASIS

SYSTEM: CCW

Relief Request: 075

Valves: 770  
Category: C  
Quality Group: C

Function:

This valve is normally open to provide cooling flow to the Reactor Coolant Pumps. The valve must close after a thermal barrier tube rupture to prevent backflow to the low pressure portion of the CCW System.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

There are no positive means to verify that the disk of this valve travels to the seat promptly on cessation or reversal of flow.

Alternate Testing:

This valve will be included in the Check Valve Sample Disassembly/Inspection Program.

4  
↓

RELIEF REQUEST BASIS

SYSTEM: SW

Relief Request: 076

Valves: SWN-963, 964, 965, 966, 981, 982,  
983, 954, 945

Category: C

Quality Group: None

Function:

These check valves are normally open, and have a safety function to open, to allow cooling water to various radiation monitors. The check valves close on cessation or reversal of flow.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

There are no positive means to verify that the disk moves promptly away from the seat when flow through the valve is initiated.

Alternate Testing:

These valves will be included in the Check Valve Sample Disassembly/Inspection Program.

RELIEF REQUEST BASIS

SYSTEM: WCPS

Relief Request: 077

Valves: SOV-1277 and SOV-1278  
Category: B  
Quality Group: None

Function:

These solenoid valves are normally open, which allows WCPS air to pressurize the piping between FCV-1170, 1171 and FCV-1172, 1173 respectively. When the isolation valves open (FCV-1170 through 1173), the solenoids reposition to stop WCPS air and to vent the air from between the isolation valves.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

These valves operate from the same circuit as the Containment Isolation valves listed above. The Containment Isolation valves are stroked at cold shutdown frequency in accordance with Relief Request 030 because of the administrative goal established to limit the amount of time the Containment Isolation valves are open during plant operation.

Alternate Testing:

These valves will be tested at cold shutdown.

RELIEF REQUEST BASIS

SYSTEM: WCPS

Relief Request: 079

Valves: SOV-1340, SOV-1341, SOV-1342, SOV-1343,  
SOV-1344, SOV-1345, SOV-1434, SOV-1435,  
SOV-1436

Category: B

Quality Group: None

Function:

These solenoid valves operate to pressurize the airlock differential pressure instrumentation lines with WCPS air on receipt of a Containment Isolation Phase "A" signal. Valves SOV-1341 through 1345 are normally closed. These valves open to pressurize the instrument lines. Valves SOV-1434 through 1436 are normally open. These valves close to maintain line pressure.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

These valves are activated by a Containment Phase "A" signal which is generated during the Safety Injection System Test.

Alternate Testing:

These valves will be tested during the Safety Injection System Test conducted at each refueling outage.

RELIEF REQUEST BASIS

SYSTEM: RCS

Relief Request: 081

Valves: 204A, 204B  
Category: B  
Quality Group: A

Function:

These valves are the isolation valves for the normal and alternate charging lines respectively. During normal operation, either the normal or alternate charging path is selected to provide borated water from the charging pumps to the Reactor Coolant System. The selected path isolation valve remains open and the unselected path remains closed.

Test Requirement: IWV-3410 (Exercise)

Basis for Relief:

Cycling valves 204A and 204B during plant operation has been identified as a possible contributor to fatigue which may result in exceeding the fatigue usage factor design limits for components in the charging lines.

Alternate Testing:

These valves will be tested at cold shutdown.

RELIEF REQUEST BASIS

SYSTEM: RCS

Relief Request: 083

4  
↓

Valves: 210A, 210B  
Category: C  
Quality Group: A

Function:

These check valves open to admit borated water from the CVCS into the RCS. The check valves are downstream of the isolation valves 204A and 204B on the normal and alternate charging lines from the Chemical Volume and Control System to the Reactor Coolant System.

Test Requirement: IWV-3520 (Exercise)

Basis for Relief:

These valves are full stroked to pass full charging flow whenever the respective isolation valve is open during normal operation. The isolation valves will no longer be cycled during normal operation. Cycling of the charging and letdown isolation valves during plant operation has been identified as a possible contributor to fatigue which may result in exceeding the fatigue usage factor design limits for components in the charging and letdown lines.

Alternate Testing:

The check valve downstream of the isolation valve (204A or 204B) which is closed during normal operation will be full stroke tested at cold shutdown.

GENERAL RELIEF REQUEST

General Relief Request: A

SYSTEM: Safety Injection, Auxiliary Coolant, Chemical and Volume Control, Reactor Coolant, Service Water, Sampling, Post Accident Containment Air Sampling, Hydrogen Recombiner, Steam Generator Blowdown and Sampling, Waste Disposal and some Miscellaneous CIVs.

Valves:

o Safety Injection System

867A	851A	888A
867B	851B	888B
869A	859A	863
869B	859C	4312
850A	885A	
850B	885B	
878A		

o Auxiliary Coolant System

744	784	798	743
741A	FCV-625	791	1870
732	796	797	
793			

o Chemical and Volume Control System

222	4925	250A
226	4926	250B
205	4927	250C
201	4928	250D
202	227	

o Reactor Coolant System

548	518	580A	3419
549	519	580B	4136
	552	3418	

GENERAL RELIEF REQUEST - A (continued)

o Service Water System

SWN-41-1-A	SWN-42-1	SWN-43-1
SWN-41-2-A	SWN-42-2	SWN-43-2
SWN-41-3-A	SWN-42-3	SWN-43-3
SWN-41-4-A	SWN-42-4	SWN-43-4
SWN-41-5-A	SWN-42-5	SWN-43-5
SWN-44-1-A	SWN-71-1-A	
SWN-44-2-A	SWN-71-2-A	
SWN-44-3-A	SWN-71-3-A	
SWN-44-4-A	SWN-71-4-A	
SWN-44-5-A	SWN-71-5-A	

o Sampling System

956A	5132
956B	958
956C	959
956D	990A
956E	990B
956F	990D
956G	4399
956H	

o Post Accident Containment Air Sampling System

5018	5021	5024
5019	5022	5025
5020	5023	

o Hydrogen Recombiner System

IV-1A	IV-5B
IV-1B	IV-3B
3420	IV-5A
3421	IV-3A
3422	IV-2B
3423	IV-2A

o Steam Generator Blowdown and Sampling System

PCV-1214	PCV-1216
PCV-1214A	PCV-1216A
PCV-1215	PCV-1217
PCV-1215A	PCV-1217A

GENERAL RELIEF REQUEST - A (continued)

o Waste Disposal System

1786	1789	3416
1787	1702	3417
5459	1705	1788
1616	1728	1723

o Miscellaneous CIV's

PCV-1190	E5	85D	IIP 500
PCV-1191	IA-39	95A	IIP 501
PCV-1192	PCV-1234	95B	IIP 502
FCV-1170	PCV-1235	95C	IIP 503
FCV-1171	PCV-1236	95D	IIP 504
FCV-1172	PCV-1237	1814A	IIP 505
FCV-1173	SA-24	1814B	IIP 506
PCV-1228	SA-24-1	1814C	IPP 507
PCV-1229	MW-17	UH-43	
PCV-1230	MW-17-1	UH-44	
E1	85A		
E2	85B		
E3	85C		

Category: A  
Quality Group: Various  
Function:

All valves listed are Containment Isolation Valves and as such must function to isolate the primary containment.

Test Requirement: IWV-3421, 3422, 3423, 3424, and 3425.

Basis for Relief:

The NRC staff has concluded that the Category A valve leak rate test requirements of IWV for Containment Isolation Valves have been superseded by Appendix J Type C requirements.

Alternative Testing:

All Category A valves listed will meet 10 CFR 50 Appendix J (Type C) leak testing requirements in lieu of Section XI requirements as listed above.

GENERAL RELIEF REQUEST

General Relief Request: B

SYSTEMS: Post Accident Containment Air Sampling; Reactor Coolant, Waste Disposal.

Valves:

o Post Accident Containment Air Sampling

5018	5021	5024
5019	5022	5025
5020	5023	

o Reactor Coolant System

3418  
3419

o Waste Disposal System

3416  
3417

o Hydrogen Recombiner

3420	IV-1A	IV-3A
3421	IV-1B	IV-3B
3422	IV-2A	IV-5A
3423	IV-2B	IV-5B

Category: A  
Quality Group: Various  
Function:

All valves listed are Containment Isolation Valves and as such must function to isolate the primary containment.

Test Requirement: IWV-3300 (Valve Position Indicator Check).

Basis for Relief:

All the valves listed are Valcor Solenoid Valves. The valves are totally sealed making a visual, physical verification of valve position impossible. However, all valves have remote position indication. This indication together with the Leak Rate Test conducted in accordance with Appendix J will allow for actual valve position verification.

Alternative Testing:

These valves will have their remote position indicators verified correct during the 10 CFR 50 Appendix J (Type C) leak testing requirements.

GENERAL RELIEF REQUEST

GENERAL RELIEF REQUEST: C

SYSTEMS: Safety Injection, Auxiliary Coolant, Chemical and Volume Control, Reactor Coolant, Sampling Post Accident Containment Air Sampling, Hydrogen Recombiner, Steam Generator Blowdown and Sampling, Waste Disposal and certain Miscellaneous CIVs.

Valves:

Safety Injection System

867A 859A 885A  
878A 859C 885B

Reactor Coolant System

548 519 3419  
549 3418 4136  
552

Auxiliary Coolant System

793 798 743  
796 791 1870

Sampling System

965A 5132  
956B 958  
956C 959  
956D 990A  
956E 990B  
956F 990D  
956G 4399  
956H

Chemical and Volume Control

201 4925 250A  
202 4926 250B  
205 4927 250C  
226 4928 250D  
227

Post Accident Air Sampling

5022 5024

Hydrogen Recombiner

IV-2A IV-2B

Steam Generator Blowdown & Sampling Waste Disposal System

PCV-1214	PCV-1216	1786	1705
PCV-1214A	PCV-1216A	1787	1728
PCV-1215	PCV-1217	5459	3416
PCV-1215A	PCV-1217A	1789	3417
		1702	1788
			1723

Miscellaneous CIVs

PCV-1190	E1	SA-24
PCV-1191	E2	SA-24-1
PCV-1192	E3	MW-17
FCV-1170	E5	MW-17-1
FCV-1171	PCV-1234	
FCV-1172	PCV-1235	
FCV-1173	PCV-1236	
PCV-1229	PCV-1237	
PCV-1230		

GENERAL RELIEF REQUEST -- C (continued)

Category: A  
Quality Group: Various  
Function:

All valves listed are Containment Isolation Valves

Test Requirements: IWV-3420

Basis for Relief:

Paragraph IWV-3426 requires that a limiting leak rate be established for each valve subject to leak rate testing. Accordingly, each valve would require that it be tested individually to assess its compliance with the limiting leak rate established. Most of the valves listed above are equipped with seal systems to maintain an air or water seal at a pressure above the peak containment pressure reached during a DBE. The seal systems are arranged by zones or manifolds. Each zone supplies several CIVs. These zones are used to pressurize the valves served by that zone for purposes of leak rate testing. Accordingly the leak rate obtained is on a zone specific basis and represents a total leak rate for all the valves served by that zone or manifold. This arrangement facilitates testing by reducing exposure to personnel while permitting testing to be accomplished with equipment that would be in service under DBE conditions.

Similarly, for valves not equipped with seal systems, that are pressurized for leak testing by applying the test medium in between two CIV's the overall leak rate is the sum of the leakage for both isolation valves.

Alternative Testing:

Leak rates will be determined for the above valves on a zone or penetration basis in lieu of obtaining individual valve leak rates. The zone or penetration leak rate will be trended as required.

GENERAL RELIEF REQUEST

GENERAL RELIEF REQUEST: D

SYSTEM: Various

Valves:

1410 and 1413	(IVSW System)
3416 through 3417	(Waste Disposal System)
3500 through 3519	(IVSW System)
5018 through 5025	(PACA System)
BV5A through BV12A	(H <sup>2</sup> Recombiner System)
BV9B through BV12B	(H <sup>2</sup> Recombiner System)
DA24 through DA-24-5	(Start Air to Diesels)
FCV-1170 through FCV-1173	(Containment Purge)
IV-1A through IV-5A	(H <sup>2</sup> Recombiner System)
IV-1B through IV-5B	(H <sup>2</sup> Recombiner System)
PCV-1190 through PCV-1192	(Containment Purge)
PCV-455C	(RCS)
PCV-456	(RCS)
3418 through 3419	(RCS)
3420 through 3423	(H <sup>2</sup> Recombiner System)

Function:

All rapid acting power operated valves (2 seconds or less) of varying function.

Test Requirement:

IWV-3417 (a) for rapid acting valves  
IWV-3413 (b) for Diesel Air Start Solenoids

Basis for Relief:

The rapid stroke time of these valves is such that changes in stroke time of as much as 50% or greater are not readily observable by the manual timing methods employed. Relief from the trending requirements of IWV-3417(a) presents no safety concerns for these valves since variations in stroke time will be affected by slight variations in the response times of the personnel performing the tests. This relief is applicable to valves having a maximum limiting stroke time of 2 seconds.

GENERAL RELIEF REQUEST D: (cont'd)

With respect to the Diesel Generator Air Starting Solenoid Valves, (DA-24 through DA-24 - 5), the diesel generators are required to start within a specified time interval commencing from solenoid energization. In lieu of attempting to measure the stroke time of these rapid acting valves, confirmation that the diesel has started within the specified time interval will serve in lieu of actual valve stroke time measurements.

Alternative Testing:

None Required

GENERAL RELIEF REQUEST

GENERAL RELIEF REQUEST: E

SYSTEMS: Various

Valves: Various Relief Valves  
Category: C  
Quality Group: B, C

Test Requirement: IWV-3512, ASME PTC 25.3-1976

Basis for Relief:

ASME PTC 25.3-1976, which is mandated by IWV-3512, requires that the Test Supervisor ". . . has obtained a degree in a branch of Engineering from a recognized school of engineering and in addition, has had at least two-years practical experience in fluid-flow measurement . . ."

We agree that this requirement is necessary for testing the various parameters of large Quality Group "A" valves. However, for simple bench tests (as described in PTC 25.3-1976, Section 4, Item 4.091(C) where only leakage and set pressure are observed on a test stand, personnel with proper practical training and experience are qualified to supervise testing. The bench test stand at Indian Point Unit 2 is operated by the Maintenance Section. The testing is performed in accordance with detailed step by step procedures. The procedure and results are straight forward, not requiring any supporting calculations. The Test Supervisor will have had at least 2 years experience with bench test operations.

Alternative Testing:

Test Supervisors for Quality Group B & C relief valve bench tests shall be considered qualified if they have at least two years experience in Maintenance Operations at the supervisory level.

GENERAL RELIEF REQUEST

GENERAL RELIEF REQUEST: F

SYSTEMS: Various

Valves: All valves listed in General Relief Request "A"  
Category: A  
Quality Group: Various

Test Requirement: IWV-3427(B)

Basis for Relief:

IWV-3427(B) requires the examination of valve leakage rates (valves 6 in. nominal pipe size or greater) over multi-outage periods in order to double the test frequency when the margin between measured leak rate and maximum permissible is reduced by 50% or greater, and to repair valves where a projection based on three or more tests exceeds the maximum allowable by greater than 10%.

Our experience with valve leakage rates indicates that IWV-3427(B) is not useful since individual valve leakage rates tend either to fluctuate in the accept range or fail (IWV-3427(A)). In addition, the record keeping and numerical computations associated with IWV-3427(B) tend to complicate procedures without a compensating gain in leakage predictability.

Alternative Testing:

IWV-3426 and IWV-3427(A) shall apply to all valves regardless of size for leakage analysis and corrective action. (See General Relief Request "A" for valve list.)

GENERAL RELIEF REQUEST

General Relief Request: G

SYSTEMS: Post Accident Containment Venting (PACV) and Weld Channel Pressurization (WCPS).

4  
↓

Valves:

o Post Accident Containment Venting

SOV-EW-1      SOV-EW-2

o Weld Channel Pressurization

SOV-1277	SOV-1340	SOV-1344
SOV-1278	SOV-1341	SOV-1343
SOV-1279	SOV-1342	SOV-1345
SOV-1280	SOV-1434	SOV-1435
		SOV-1436

Category:            B  
Quality Group:      None  
Function:

All valves listed are solenoid valves which operate to ensure pressurization between valve seats for containment isolation.

Test Requirement: IWV-3413 (Specification and measurement of limiting stroke time).

Basis for Relief:

All the valves listed are solenoid valves which have no remote position indication and for which stem position cannot be observed. Measurement of valve stroke time is not practical for these valves.

Alternative Testing:

None.