

PUMP AND VALVE INSERVICE TESTING PROGRAM  
FOR  
PERRY NUCLEAR POWER PLANT  
UNIT 1

Prepared By  
CLEVELAND ELECTRIC ILLUMINATING COMPANY  
Perry, Ohio

8-8-05



TABLE OF CONTENTS

	<u>Page</u>
Table of Contents	iii
List of Tables	iv
1.0 INTRODUCTION	1
1.1 Drawing Index Table	
2.0 INSERVICE TESTING PROGRAM FOR PUMPS	6
2.1 General Information	7
2.1.1 Applicable Code	7
2.1.2 Pump Program Tables	7
2.1.3 Measurement of Test Quantities	8
2.1.4 Allowable Ranges of Test Quantities	8
2.1.5 Instrument Accuracy	8
2.2 Relief Requests for Inservice Pump Testing Program	9
2.3 Pump Testing System Index and Test Tables	19
2.3.1 Pump Testing System Index	20
2.3.2 Pump Test Table Nomenclature	21
2.3.3 Pump Test Table Notes	22
2.3.4 Pump Test Tables	23
3.0 INSERVICE TESTING PROGRAM FOR VALVES	25
3.1 General Information	26
3.1.1 Applicable Code	26
3.1.2 Valve Program Tables	26
3.1.3 Measurement of Test Quantities	28
3.1.4 Allowable Ranges of Test Quantities	29
3.1.5 Instrument Accuracy	29
3.2 Relief Requests for Inservice Valve Testing Program	34
3.3 Valve Testing System/Attachment Index and Test Tables	73

LIST OF TABLES

<u>Table</u>	<u>Title</u>	<u>Page</u>
3.1-1	INSERVICE VALVE TESTS	30
3.1-2	TEST FREQUENCY	32

## 1.0 INTRODUCTION

The Perry Nuclear Power Plant ASME Inservice Testing Program for Pumps and Valves will be in effect through the first 120 month inspection period and will be updated in accordance with the requirements of 10CFR 50.55a(g).

This document outlines the inservice testing (IST) program based on the requirements of Section XI of the ASME Boiler & Pressure Vessel Code, 1980 Edition through the Winter 1981 Addenda. All references to IWP or IWV, respectively, of ASME Section XI, reflect the 1980 Edition through the Winter 1981 Addenda, unless otherwise noted.

The inservice inspection (ISI) classification boundaries are identical to the design classification or quality group boundaries shown on the plant piping and instrument diagrams (P&IDs) listed in Table 1.1. Some pumps and valves within the ISI boundaries are identified as non-classed (NC). This IST program was developed using the ISI classification boundaries and the following documents:

Title 10, Code of Federal Regulations, Part 50, Paragraph 50.55a(g).

NRC Regulatory Guides Division 1.

Standard Review Plan 3.9.6, "Inservice Testing of Pumps and Valves.:

Division 1 (draft) Regulatory Guide and Valve/Impact Statement, "Identification of Valves for Inclusion in Inservice Test Programs."

"NRC Staff Guidance for Preparing Pump and Valve Testing Programs and Associated Relief Request," November, 1981.

Final Safety Analysis Report, Perry Nuclear Power Plant.

Technical Specifications, Perry Nuclear Power Plant.

The inservice tests identified in this program will verify the operational readiness of pumps and valves whose functions are required to mitigate the consequences of an accident or to bring the reactor to a cold shutdown condition or maintain the reactor in a safe shutdown condition.

Table 1.1

<u>System</u>	<u>Dwg. No.</u>	<u>Rev. No.</u>	<u>Attachment No.</u>
Feedwater (B-21)	D-302-082	J	1
Condensate Transfer & Storage (P-11)	D-302-102	G	2
Main, Reheat, Extraction, & Misc. Drains (B-21)	D-302-121	G	3
Service Air Distribution (P-51)	D-302-242	C	4
Instrument Air (P-52)	D-302-243	B	5
Safety-Related Instrument Air (P-57)	D-302-271	B	6
MSIV Leakage Control (E-32)	D-302-341	A	7
	D-302-342	A	
HPCS Diesel Generator Fuel Oil (R-45)	D-302-356	A	8
Reactor Water Recirculation (B-33)	D-302-601	D	9
	D-302-601	B	
Nuclear Boiler (B-21)	D-302-605	C	10
	D-302-011	H	
Nuclear Closed Cooling (P-43)	D-302-613	F	11
Emergency Closed Cooling Water (P-42)	D-302-621	E	12
	D-302-622	D	
Reactor Core Isolation Cooling (E-51)	D-302-631	D	13
	D-302-632	D	
Residual Heat Removal (E-12)	D-302-641	F	14
	D-302-642	F	
	D-302-643	F	
Fuel Pool Cooling & Cleanup (G-41)	D-302-651	G	15
	D-302-654	D	
	D-302-655	D	

Table 1.1  
(Continued)

<u>System</u>	<u>Dwg. No.</u>	<u>Rev. No.</u>	<u>Attachment No.</u>
Reactor Water Cleanup (G-33)	D-302-671	E	16
	D-302-672	E	
Suppression Pool Cleanup (G-42)	D-302-681	H	17
Suppression Pool Make-up (G-43)	D-302-686	B	18
Standby Liquid Control (C-41)	D-302-691	B	19
	D-302-692	D	
High Pressure Core Spray (E-22)	D-302-701	F	20
Low Pressure Core Spray (E-21)	D-302-705	E	21
Mixed Bed Demin. & Distribution (P-22)	D-302-713	J	22
Liquid Radwaste (G-50)	D-302-737	L	23
Liquid Radwaste Sumps (G-61)	D-302-739	J	24
	D-302-740	K	
Emergency Service Water (P-45)	D-302-791	E	25
	D-302-792	E	
Containment Integrated Leak Rate Testing (E-61)	D-302-811	E	26
Combustible Gas Control (M-51)	D-302-831	F	27
	D-302-832	G	
Control Rod Drive Hydraulics (C-11)	D-302-871	D	28
	D-302-872	E	
Containment Atmosphere Monitoring (D-23)	D-302-881	C	29
Nitrogen (P-86)	D-302-950	B	30
Feedwater Leakage Control (N-27)	D-302-971	B	31
Penetration Pressurization System (P-53)	D-302-761	O	32
Plant Radiation Monitoring (D-17)	D-806-004	A	33
	D-806-007	A	

Table 1.1  
(Continued)

<u>System</u>	<u>Dwg. No.</u>	<u>Rev. No.</u>	<u>Attachment No.</u>
Containment Vessel and Drywell Purge (M-14)	D-912-604	N	34
Drywell & Containment Vacuum Relief (M-17)	D-912-606	J	35
Control Complex Chilled Water (P-47)	D-913-001 D-913-002	R K	36
Containment Vessel Chilled Water (P-50)	D-913-008	J	37
Post Accident Sampling (P87)	D-302-431	B	43
Fire Service Water (P-54)	D-914-003	L	38
Fire Service CO <sub>2</sub> System (P-54)	D-914-005	G	39
Standby Diesel Generator Starting Air (R-44)	D-302-351	F	40
Standby Diesel Generator Fuel Oil (R-45)	D-302-352 D-302-356	G A	41
Standby Diesel Generator Lube Oil (R-47)	D-302-353	B	42

GENERIC  
RELIEF REQUEST  
GR-1

COMPONENT: All

FUNCTION: As Applicable

CLASS: All

TEST REQUIREMENTS: ASME Section XI Subsection IWP and IWV.

BASIS FOR RELIEF: Throughout the refueling cycle, numerous cold shutdowns of relatively short durations can occur. Section XI requires inservice testing to commence during each shutdown. Sufficient time is needed to make scheduling arrangements, appropriate valve line-ups, ALARA considerations, and system adjustments prior to testing. Therefore, sometime is required to prepare for inservice testing.

ALTERNATE TESTING: Inservice testing shall commence no later than 48 hours after cold shutdown condition is achieved, and will continue until all testing is completed or the plant is ready to return to power. For planned shutdowns of sufficient duration, all required testing will be completed.

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT 1

SECTION 2

PUMP IST PROGRAM



## 2.0 INSERVICE TESTING PROGRAM FOR PUMPS

### 2.1 General Information

#### 2.1.1 Applicable Code

This testing program for ISI Class 1, 2 and 3 pumps meets the requirements of Subsection IWP of Section XI of the ASME Boiler and Pressure Vessel Code, 1980 Edition through the Winter of 1981 Addenda. Where these requirements are determined to be impractical, specific requests for relief have been written and included in Section 2.2.

#### 2.1.2 Pump Program Tables

The tables in Section 2.3.4 list all pumps included in the Perry Nuclear Power Plant (PNPP) IST Program. Data contained in these tables identifies those pumps subject to inservice testing, the inservice test quantities to be measured, the inservice testing frequency, and any applicable remarks. The column headings are listed and explained below:

#### PUMP IDENTIFICATION

1. SYSTEM: The system of which the pump is a component.
2. PUMP NUMBER: The pump identification number.
3. P&ID NUMBER: The PNPP drawing number for the P&ID referring to the pump.
4. P&ID COORD: The drawing coordinate location of the pump on the P&ID.
5. ISI CLASS: The ISI classification of the pump.

#### ISI REQUIREMENTS

PUMP SPEED, INLET (SUCTION) PRESSURE, DIFFERENTIAL PRESSURE ( $\Delta P$ ), FLOW RATE, VIBRATION, BEARING TEMPERATURE AND LUBRICANT LEVEL OR PRESSURE: When the symbol "X" appears in a particular measured parameter column, that quantity will be measured during inservice testing in accordance with Subsection IWP. If a modified test is planned or a test is being waived, a numerical integer, which refers to a Pump Test Table Note (Section 2.3.3.), shall appear in the measured parameter column. Requests for relief are identified with the letters "PR" under the measured parameter column in the test tables. The requests for relief are included in Section 2.2.

### 2.1.3 Measurement of Test Parameters

SPEED: Per IWP-4400, shaft speed need not be measured for pumps directly coupled to synchronous or induction type motor drivers. For variable speed pumps, the pump speed is set at the reference speed per IWP-3100.

INLET (SUCTION) PRESSURE: For submerged pumps, inlet pressure will be calculated (using appropriate correction factors) from a measured tank or basin level. All other inlet pressure measurements will be taken using pressure instruments at or near the pump inlet.

DIFFERENTIAL PRESSURE: Differential pressure will be calculated from inlet and discharge pressure measurements or by direct differential pressure measurement.

FLOW RATE: Flow rate will be measured using a rate or quantity meter installed in the pump test circuit.

VIBRATION: Pump vibration will be measured as close as possible to the inboard bearing, in a plane approximately perpendicular to rotating shaft, in a horizontal or vertical direction that has the largest deflection for that particular pump. At least one displacement, and one velocity measurement will be taken with one of the instruments referenced in IWP-4520.

BEARING TEMPERATURE: Pump bearing temperature(s) will not be measured. (Relief Request PR-1.)

LUBRICANT LEVEL OR PRESSURE: Pump lubricant level or pressure will be observed during each inservice test when applicable.

### 2.1.4 Allowable Ranges of Test Parameters

The allowable ranges specified in Table IWP-3100-2 will be used for differential pressure, flow and vibration measurements except as discussed. Should a measured test quantity fall outside the allowable range, the possibility of defining an expanded allowable range, in accordance with ASME Code interpretation XI-1-79-19, will be investigated.

### 2.1.5 Instrument Accuracy

Allowable instrument accuracies are given in Table IWP-4110-1. If the accuracies of the station's instruments are not acceptable, temporary instruments meeting those requirements in Table IWP-4110-1 will be used.

SECTION 2.2

RELIEF REQUESTS FOR INSERVICE PUMP TESTING PROGRAM

Rev. 1

Pump Relief Request #  
PR-1

System: As applicable

Pumps:	1E12-C002A	1E32-C001	1P42-C001A	1R45-C001A
	1E12-C002B	1E32-C002B	1P42-C001B	1R45-C001B
	1E12-C002C	1E51-C001	1P45-C001A	1R45-C001C
	1E12-C003	1E51-C003	1P45-C001B	1R45-C002A
	1E21-C001	1C41-C001B	1P45-C002	1R45-C002B
	1E21-C002	1C41-C002A	1P47-C001A	1R45-C002C
	1E22-C001	1C41-C002B	1P47-C001B	1E32-C002F
	1E22-C003	1G41-C003A	1P47-C001C	1P49-C002A
		1G41-C003B	1C41-C001A	1P49-C002B

Function: As applicable

Class: ASME Class 2 and 3

Test Requirement: ASME (IWP-4310) requires the temperature of all centrifugal pump bearing, outside the main flow path, shall be measured at points selected to be responsive to changes in the temperature of the bearing.

Basis for Relief:

- (a) Some of the pumps addressed in this relief request are cooled by their respective process fluid, "Main Flow Path." Thus, bearing temperature measurements would be highly dependent on the temperature of the cooling medium.
- (b) Pump bearing temperature is taken at (1) one-year intervals, only, which provides very little data toward determining the incremental degradation of a bearing, or provide any meaningful trend data.
- (c) Except for the Emergency Service Water Pumps 1P45-C001A, B and C002, which are submerged under water, all pumps addressed in this relief request will be subject to vibration measurements per subsection IWP-4500. Vibration measurements are a significantly more reliable indication of pump bearing degradation than that of temperature measurements, in summary other measurable parameters are more indicative of pump performance, and in some instances the measured temperature does not represent the actual bearing temperature. Therefore, pump bearing temperature will not be measured.

Alternate Testing:

Vibration measurements will be taken on all pumps identified above as required by ASME Section XI Subsection IWP-4500, except as noted in paragraph "c", above.

Pump Relief Request #/

PR-2

System: As applicable

Pumps: All

Function: As Applicable

Class: ASME Class 2 and 3

Test Requirements: ASME (IWP-3220) time allowed for analysis of test data shall be within 96 hours after completion of a test.

Basis for Relief: Test acceptance criteria is contained within the test procedures, and the initial approval of equipment operability is by on-shift personnel. The analysis of results for degradation requiring increased testing or engineering evaluation will then occur when the appropriate personnel are available for reviewing the IST Data. The appropriate personnel are not always readily available for this review effort.

Alternate Testing: Test data will be reviewed within four (4) work days following the test, excluding weekends (Saturday & Sunday) and Holidays, within the 96 hour time frame.

Pump Relief Request #

PR-3

System: Standby Liquid Control System

Pumps: 1C41-C001A and 1C41-C001B

Class: 2

Function: Provides a method of shutting down the reactor without use of the control rods.

Test Requirements: IWP-3300; Scope of Test - measurement and observation of inlet pressure (Pi) and differential pressure (Pd) across the pumps.

Basis for Relief: The standby liquid control pumps are required to supply the necessary flow rate at a given system pressure. The inlet pressure (no installed test equipment) will be equivalent to the static head provided by the test tank. Test tank level is established within the inservice test procedures. Also, the measurement of inlet pressure on a positive displacement pump is not a significant test parameter. The system resistance is varied to establish the measured and observed discharge pressure as the reference value. Flow rate is measured, observed and monitored to verify pump operability and degradation.

Alternate Testing: Utilize pump discharge pressure reading in lieu of pump DP reading.

Pump Relief Request #

PR-4

System: Waterleg Fill Pumps (HPCS, LPCS, RCIC, and RHR)

Pumps: 1E22-C003, 1E21-C002, 1E51-C003, and 1E12-C003

Class: 2

Function: Waterleg pumps maintain the discharge piping of safety-related systems full to expedite flow during initiation, and to minimize the likelihood of system damage due to water hammer.

Test Requirements: IWP-4600 Flow measurement (Accuracy), IWP-3230 (a) corrective action (alert range), and IWP-3230(b) corrective action (action range).

Basis for Relief: The waterleg pumps were designed to be in service to keep functional systems full. The waterleg pumps have a capacity of 40 gpm and a minimum flow design requirement of 10 gpm. Testing will establish a flow path with a minimum system resistance. Hydraulic parameters shall be measured, with flow rate being measured by using a survey flowmeter. The accuracy of the survey flowmeter is approximately 5%. The pump can meet the design function with as much as 75% degradation. Therefore, relief from accuracy requirements and alert/action ranges adequately allows assessment of pump operability.

Alternate Testing: Measurement of flow by survey flowmeter (approximately  $\pm 5\%$  accuracy) and corrective action ranges for flow shall be: 50% degradation alert range and 75% degradation action range.

Pump Relief Request #

PR-5

System: MSIV Leakage Control (E32)

Pumps: 1E32-C001, 1E32-C002B, 1E32-C002F

Class: 2

Function: The blowers provide a means to control and minimize the release of fission products which may leak through the closed MSIVs after a Loss-of-Coolant Accident (LOCA).

Test Requirements: IWP-3300, Scope of Test - measurement and observation of flow (Qf), inlet pressure (Pi), and differential pressure (Pd).

Basis for Relief: Although the blowers may fall within the definition of pumps, they do not have hydraulic characteristics that will show blower degradation; therefore, only the mechanical characteristics will be monitored.

Alternate Testing: Perform the normal testing of the mechanical characteristics.



Pump Relief Request #

PR-6

System: Emergency Service Water System (P45)  
ESW Screen Wash (P49)

Pumps: 1P45-C001A, 1P45-C001B, 1P45-C002, 1P49-C002A, 1P49-C002B

Class: 3

Function: The emergency service water pumps provide the cooling water to support the safety-related shutdown systems.

The ESW Screen Wash Pumps provide clean water to the spray nozzles for cleaning debris from the ESW traveling screens. The pumps also supply flushing water to the ESW screen tray.

Test Requirements: ASME Section XI, IWP-4500 requires vibration measurements to be taken at a location on a bearing housing or its structural support, provided it is not separated from the pump by any resilient mounting.

Basis for Relief: The service water and screen wash pumps are totally submerged under water making the required vibration testing impractical, however, the motor drivers are shaft connected to the pumps and are accessible.

Alternate Testing: The vibration measurements will be taken, as scheduled on a quarterly basis, on the lower bearing, closest to the pump driver motor.

Pump Relief Request #

PR-7

System: Emergency Service Water (P45)  
Emergency Service Water Screen Wash (P49)

Pumps: 1P45-C001A, 1P45-C001B, 1P45-C002 1P49-C002A, 1P49-C002B

Class: 3

Function: The emergency service water pumps provide the cooling water to support the safety-related shutdown systems.

The ESW Screen Wash Pumps provide clean water to the spray nozzles for cleaning debris from the ESW traveling screens. The pumps also supply flushing water to the ESW screen tray.

Test Requirements: Measure, record, and compare inlet (suction) pressure  $P_i$  Per IWP-3100.

Basis for Relief: An inlet (suction) pressure gauge is not provided for the emergency service water pumps. The pumps have an inlet pressure dependent upon Lake Erie water level. Calculation of this static head between Lake level and pump inlet should adequately provide the necessary inlet pressure.

Alternate Testing: Calculate the static head between Lake Erie water level and the pump suction for inlet suction pressure.

Pump Relief Request #

PR-8

System: Emergency Service Water Screen Wash

Pumps: 1P49-C002A and 1P49-C002B

Class: 3

Function: The ESW Screen Wash Pumps provide clean water to the spray nozzles for cleaning debris from the ESW traveling screens. The pumps, also, supply flushing water to the ESW screen tray.

Test Requirements: IWP-4600 Flow Measurement (accuracy), IWP-3230(a) corrective action (alert range), and IWP-3230(b) corrective action (action range).

Basis for Relief: Flow rate will be measured and observed with a survey flowmeter which has an accuracy of  $\pm 5\%$ . A low pressure spray header alarm is provided to warn operators of insufficient screen cleaning pressure and to start the traveling screens. The pump has a capacity of 470 gpm at 100psid. The low pressure alarm setpoint is at 72 psid.

Alternate Testing: Measurement of flow by survey flowmeter (approximately  $\pm 5\%$ ) and corrective action ranges for flow shall be: 15% degradation alert range and 25% degradation action range.

Pump Relief Request #

PR-9

System: Standby Diesel Generator Fuel Oil (A and B), HPCS Diesel Generator Fuel Oil (C)

Pumps: 1R45-C001A/1R45-C002A, 1R45-C001B/1R45-C002B, 1R45-C001C/1R45-C002C

Class: 3

Function: The fuel oil transfer pumps maintain a sufficient operating level in the fuel oil day tank by transferring fuel oil from the fuel oil storage tank to the fuel oil day tank.

Test Requirements: IWP-4600 Flow measurement (accuracy), IWP-3230(a) corrective action (alert range), and IWP-3230(b) corrective action (action range).

Basis for Relief: Two fuel oil transfer pumps supply one day tank; one pump is designated as inservice and the other pump is designated as backup. The capacity of a fuel transfer pump is 90-140 gpm; and the capacity of the diesel Engine - Driven Fuel Pump is 35 gpm. Flow rate will be measured with a survey flowmeter which has an accuracy of approximately  $\pm 5\%$ . The pump can meet the design function with as much as 50% degradation; therefore, relief from accuracy requirements and alert/action ranges adequately allows assessment of pump operability.

Alternate Testing: Measurement of flow by survey flowmeter (approximately  $\pm 5\%$ ) with corrective action ranges for flow shall be: 25% degradation alert range and 50% degradation action range.

SECTION 2.3

PUMP TESTING SYSTEM INDEX AND TEST TABLES

Perry Nuclear Power Plant Unit No. 1  
2.3.1 Pump Testing System Index

<u>System</u>	<u>Dwg. No./Rev.</u>	<u>No. of Pumps</u>
Standby Liquid Control (C41)	D-302-691/Rev. C	2
Standby Liquid Control Transfer (C41)	D-302-692/Rev. 0	2
Residual Heat Removal (E12)	D-302-641/Rev. G	1
	D-302-643/Rev. G	3
Low Pressure Core Spray (E21)	D-302-705/Rev. G	2
High Pressure Core Spray (E22)	D-302-701/Rev. H	2
MSIV Leakage Control (E32)	D-302-341/Rev. A	1
	D-302-342/Rev. A	2
Reactor Core Isolation Cooling (E51)	D-302-631/Rev. E	2
Fuel Pool Cleaning and Cleanup (G41)	D-302-654/Rev. D	2
Emergency Closed Cooling Water (P42)	D-302-621/Rev. F	2
Emergency Service Water (P45)	D-302-791/Rev. G	3
Control Complex Chilled Water (P47)	D-913-001/Rev. R	3
ESW Screen Wash (P49)	D-302-214/Rev. H	2
Standby D.G. Fuel Oil (R45)	D-302-352/Rev. G	4
HPCS D.G. Fuel Oil (R45)	D-302-356/Rev. A	2

### 2.3.2 Pump Test Table Nomenclature

The following abbreviations have been used in the Pump Test Table.

N	=	Rotative Speed
Pi	=	Inlet Pressure (Before and after pump start)
Pd	=	Differential Pressure Across Pump
$Q_f$	=	Flow Rate
V	=	Vibration Amplitude
$T_b$	=	Bearing Temperature
Q	=	Quarterly
X	=	Measurement/Observation Per IWP
L	=	Lubricant Level or Pressure
PR	=	Relief Request

### 2.3.3 Pump Test Table Notes

In the Pump Test Table, the test parameters to be measured or observed and the test frequency are identified. Footnotes 1 through 6 refer to amplifications, deviations and exceptions to the Code requirements and are further discussed below:

- (1) Pump with constant speed drive, speed is not measured since test will be performed at nominal motor nameplate speed as required by Section XI, IWP-3100.
- (2) Inlet pressure is to be calculated from the inlet liquid level elevation. The liquid level will be measured while establishing and verifying Reference Data sets and used as information during subsequent test analysis.
- (3) Bearing temperature measurement not required (IWP-4310) since bearings are in pumped fluid flow path.
- (4) Bearing temperatures are not measured yearly as stipulated by Section XI, IWP-3300 per Relief Request PR-1.
- (5) Lubricant level or pressure not observed because of bearing lubrication design.
- (6) Bearing temperature measurements not performed since bearings are an integral part of the pump drive unit and are not accessible to perform temperature measurements.



PERRY PLANT UNIT 1  
2.3.4 PUMP TEST TABLE

PAGE 1 OF 2

PUMP LIST												REV NO. 1
MEASURED PARAMETERS												
SYSTEM	PUMP I.D.	DWG. NO.	COORD.	CLASS	FREQ.	N	Pi	Pd	Qf	V	Tb(4)	L
Standby Liquid Control	1C41-C001A	D-302-691	D-8	2	Q	(1)	PR-3	PR-3	X	X	PR-1	X
	1C41-C001B	D-302-691	G-8	2	Q	(1)	PR-3	PR-3	X	X	PR-1	X
Standby Liquid Control	C41-C002A	D-302-692	F-7	3	Q	(1)	X	X	X	X	PR-1	X
Transfer System	C41-C002B	D-302-692	F-9	3	Q	(1)	X	X	X	X	PR-1	X
Residual Heat Removal	1E12-C002A	D-302-641	J-4	2	Q	(1)	X	X	X	X	PR-1	(5)
	1E12-C002B	D-302-643	H-12	2	Q	(1)	X	X	X	X	PR-1	(5)
	1E12-C002C	D-302-643	G-12	2	Q	(1)	X	X	X	X	PR-1	(5)
	1E12-C003	D-302-643	F-10	2	Q	(1)	X	X	PR-4	X	PR-1	X
Low Pressure Core Spray	1E21-C001	D-302-705	G-4	2	Q	(1)	X	X	X	X	PR-1	(5)
	1E21-C002	D-302-705	F-8	2	Q	(1)	X	X	PR-4	X	PR-1	X
High Pressure Core Spray	1E22-C001	D-302-701	E-12	2	Q	(1)	X	X	X	X	PR-1	(5)
	1E22-C003	D-302-701	F-9	2	Q	(1)	X	X	PR-4	X	PR-1	X
MSIV Leakage Control	1E32-C001	D-302-341	G-12	2	Q	(1)	PR-5	PR-5	PR-5	X	PR-1	(5)
	1E32-C002B	D-302-342	G-6	2	Q	(1)	PR-5	PR-5	PR-5	X	PR-1	(5)
	1E32-C002F	D-302-342	H-6	2	Q	(1)	PR-5	PR-5	PR-5	X	PR-1	(5)
Reactor Core Isolation	1E51-C001	D-302-631	D-3	2	Q	X	X	X	X	X	PR-1	X
Cooling	1E51-C003	D-302-631	F-4	2	Q	(1)	X	X	PR-4	X	PR-1	X

PERRY PLANT UNIT 1  
2.3.4 PUMP TEST TABLE

PAGE 2 OF 2

PUMP LIST												REV NO. 1
SYSTEM	PUMP I.D.	DWG. NO.	COORD.	CLASS	FREQ.	N	Pi	Pd	QF	V	Tb(4)	L
Fuel Pool Cooling and Cleanup	1G41-C003A	D-302-654	G-12	3	Q	(1)	X	X	X	X	PR-1	X
	1G41-C003B	D-302-654	J-12	3	Q	(1)	X	X	X	X	PR-1	X
Emergency Closed Cooling Water	1P42-C001A	D-302-621	D-12	3	Q	(1)	X	X	X	X	PR-1	X
	1P42-C001B	D-302-621	G-12	3	Q	(1)	X	X	X	X	PR-1	X
Emergency Service Water	1P45-C001A	D-302-791	G-14	3	Q	(1)	PR-7	X	X	PR-6	PR-1	(5)
	1P45-C001B	D-302-791	G-13	3	Q	(1)	PR-7	X	X	PR-6	PR-1	(5)
	1P45-C002	D-302-791	G-11	3	Q	(1)	PR-7	X	X	PR-6	PR-1	(5)
Control Complex Chilled Water	1P47-C001A	D-913-001	B-5	3	Q	(1)	X	X	X	X	PR-1	X
	1P47-C001B	D-913-001	G-5	3	Q	(1)	X	X	X	X	PR-1	X
	1P47-C001C	D-913-001	D-5	3	Q	(1)	X	X	X	X	PR-1	X
Emergency Service Water Screen Wash	1P49-C002A	D-302-214	C-12	3	Q	(1)	PR-7	X	PR-8	PR-6	PR-1	(5)
	1P49-C002B	D-302-214	G-12	3	Q	(1)	PR-7	X	PR-8	PR-6	PR-1	(5)
Standby Diesel Generator Fuel Oil	1R45-C001A	D-302-352	F-11	3	Q	(1)	X	X	PR-9	X	PR-1	X
	1R45-C001B	D-302-352	F-5	3	Q	(1)	X	X	PR-9	X	PR-1	X
	1R45-C002A	D-302-352	F-9	3	Q	(1)	X	X	PR-9	X	PR-1	X
	1R45-C002B	D-302-352	F-3	3	Q	(1)	X	X	PR-9	X	PR-1	X
HPCS Diesel Generator Fuel Oil	1R45-C001C	D-302-356	F-5	3	Q	(1)	X	X	PR-9	X	PR-1	X
	1R45-C002C	D-302-356	F-3	3	Q	(1)	X	X	PR-9	X	PR-1	X

DW218/D/4/ch

PUMP AND VALVE INSERVICE TESTING PROGRAM

for

PERRY NUCLEAR POWER PLANT

UNIT 1

SECTION 3.0

VALVE IST PROGRAM

### 3.0 INSERVICE TESTING PROGRAM FOR VALVES

#### 3.1 General Information

##### 3.1.1 Applicable Code

This testing program for ISI Class 1, 2, 3 Valves and Valve Actuators meet the requirements of Subsection IWV of Section XI of the ASME Boiler and Pressure Vessel Code, 1980 Edition through the Winter 1981 Addenda. Where these requirements are determined to be impractical, specific requests for relief have been written and included in Section 3.2.

##### 3.1.2 Valve Program Tables

The tables in Section 3.3.2 list ISI Class 1, 2, 3 and Nonclass valves that have been assigned valve categories. Valves exempt per IWV-1200 are not listed. The following information is included for each valve:

#### VALVE IDENTIFICATION AND IST REQUIREMENTS

SYSTEM-P&ID: Located in the top left hand corner of the program table the system and drawing number (DWG. NO.) is identified. This identifies the valve's associated system and P&ID.

VALVE NO.: The valve identification number.

P&ID COOR.: The drawing coordinate location on the P&ID for the valve.

ISI CLASS: The ISI classification of the valve.

ISI CAT.: The category(s) assigned to the valve based on the definitions per IWV-2200. Four (4) separate categories are defined in the Code:

CATEGORY A - Valves for which seat leakage is limited to a specific maximum amount in the closed position for fulfillment of their function.

CATEGORY B - Valves for which seat leakage in the closed position is inconsequential for fulfillment of their function.

CATEGORY C - Valves which are self-actuating in response to some system characteristic, such as pressure (relief valves) or flow direction (check valves).

CATEGORY D - Valves which are actuated by an energy source capable of only one operation, such as rupture disks or explosive-actuated valves.

VALVE SIZE: The nominal size of the valve in inches.

VALVE TYPE: The valve body design as indicated by the following abbreviations:

BALL	BAV
BUTTERFLY	BFV
CHECK	CHV
DIAPHRAGM	DIV
GATE	GTV
GLOBE	GLV
RELIEF	REV
RUPTURE DIAPHRAGM	RUD
STOP CHECK	SCK
THREE WAY	TWV

ACT. TYPE: The type of valve actuator as indicated by the following abbreviations:

MOTOR OPERATOR	MOV
AIR OPERATOR	POV
SOLENOID OPERATOR	SOV
HYDRAULIC OPERATOR	HOV
MANUAL	MAN
SELF ACTUATED	SEV

NORM. POS.: The position of the valve during normal plant operation, specified as follows:

O	Normally Open
C	Normally Closed
LO	Locked Open
LC	Locked Closed
DE	Depends on Sys. Condition

TEST RQMT.  
& FREQ.:

The test(s) that will be performed to fulfill the requirements of Subsection IWV. The test definitions and abbreviations used are identified in Table 3.1-1.

The frequency at which the above mentioned tests will be performed. Test frequencies are defined in Table 3.1-2.

MAX. STRK.  
TIME:

The limiting maximum value of full stroke time, in seconds, for power-operated valves in Category A or B.

CHECK VLV

TEST DIR:

The direction in which flow will be applied to check valves during test(s) will be as follows:

F Forward (Normal to allow flow through valve)

R Reverse (Opposite to allow flow through valve)

RELIEF REQUEST:

The reference to a relief request in Section 3.2 for valve testing. Requests for relief are identified as VR-XX.

REMARKS:

Remarks in the IST Program are coded as NOTE 1, NOTE 2, etc.

3.1.3 Measurement of Test Quantities

STROKE TIME:

Stroke time is that time interval from initiation of the actuating signal to the end of the actuating cycle. Stroke time values for each power operated valve is specified in the valve program table. Stroke time is measured to the nearest second, for times 10 sec. or less or 10% of the specified limiting stroke time for times greater than 10 sec.

POSITION

INDICATION:

Valve disk movement is determined by exercising the valve while observing an appropriate indicator which signals the required change of disk position, or observing indirect evidence, such as changes in system pressure, flow rate, level or temperature, which reflect stem or disk position.

SEAT LEAKAGE:

Seat leakage is measured by one of the following methods:

- (a) draining the line, closing the valve, bringing one side to test pressure, and measuring leakage through a downstream telltale connection, or
- (b) by measuring the feed rate required to maintain pressure between two valves or between two seats of a gate valve, provided the total apparent leak rate is charged to the valve or gate valve seat being tested, and that the conditions required by IWV-3423 are satisfied.

#### 3.1.4 Allowable Ranges of Test Quantities

- STROKE TIME: (a) If, for power operated valves, an increase in stroke time of 25% or more from the previous test for valves with stroke times greater than 10 sec. or 50% or more for valves with stroke times less than or equal to 10 sec. is observed, corrective action will be taken. For valves with stroke times less than or equal to three seconds see Relief Request VR-2.
- (b) Valve stroke time shall not exceed its specified limiting stroke time value without corrective action being taken.

POSITION INDICATION: The valve disk shall move from the fully open position to the fully closed position or vice versa.

- SEAT LEAKAGE: (a) Valve leakage rates shall not exceed either the values specified by Perry Nuclear Power Plant Technical Specifications or the Owner's (CEI) established leakage rates.
- (b) For valves 6 in. nominal pipe size and larger the leakage rate shall not exceed one gpm (Relief Request VR-3). If tests show a leakage rate increasing with time, and a projection based on three or more tests indicates that the leakage rate of the next scheduled test will exceed the maximum permissible leakage rate by greater than 10%, corrective action will be taken.

#### 3.1.5 Instrument Accuracy

Instruments used to measure stroke times shall be capable of measurement to the nearest tenth of a second.

TABLE 3.1-1

INSERVICE VALVE TESTS

<u>TEST</u>	<u>TEST NAME</u>	<u>TEST DESCRIPTION</u>
LJ	Containment Isolation Valves	Containment isolation valves will be seat leak tested in accordance with 10 CFR 50, Appendix J, Type C Leak test and PNPP Technical Specification requirements.
LK	Pressure isolation valve	Pressure isolation valves will be seat leak tested in accordance with ASME Boiler and Pressure Vessel Code, Section XI, IWV-3420 Valve Leak Rate Test.
LC	Containment and pressure isolation valve	Both a containment and pressure isolation valve will be seat leak tested in accordance with 10 CFR 50, Appendix J and ASME Boiler and Pressure Vessel Code, Section XI.
LA	Accumulator Pressure Isolation Valve	Accumulator pressure isolation valves will be seat leak tested by the pressure drop method with no required seat leakage limits. (NOTE: Valves not tested in accordance with ASME Boiler and Pressure Vessel Code, Section XI.)
FE	Full-Stroke exercise	Exercise testing of Category A or B valves through one complete cycle of operation. <ol style="list-style-type: none"> <li>1) Normally open: Full Stroke exercise the valve closed then return to open position.</li> <li>2) Normally closed: Full Stroke exercise the valve open then return to closed position.</li> </ol>
ST	Stroke Time	Stroke time is the measurement of the time required to exercise test a Category A or B valve through an operation. Valve timing shall be to the alternate position to comply with ASME Boiler and Pressure Vessel Code, Section XI. <ol style="list-style-type: none"> <li>1) Stroke Direction (c) - Normally open: Full Stroke time close.</li> <li>2) Stroke Direction (o) - Normally closed: Full Stroke time open.</li> </ol> <p>Additional stroke timing may be required by other documents (i.e., PNPP Technical Specifications and PNPP Final Safety Analysis Report).</p>



TABLE 3.1-1 (Continued)

INSERVICE VALVE TESTS

PE	Partial Stroke Exercise	Partial stroke exercise testing will be performed to confirm partial stroke capability when full stroke exercise is impractical.
FE	Check Valve Exercise	<p>Exercise testing of Category C (i.e., check valves) valves through one complete cycle of operation by system flow or other positive exercise method.</p> <ol style="list-style-type: none"> <li>1) Forward Flow Direction (F) - Normally closed: Flow Stroke open.</li> <li>2) Reverse Flow Direction (R) - Normally open: Flow Stroke close.</li> </ol>
PC	Partial Check Exercise	Partial check valve flow direction exercise is when a Category C valve can only be partially exercised.
RD	Rupture Detonate Test	Rupture Test of all Category "D" (Non-Testable) valves were performed by the manufacturer and the start-up testing program. No additional testing shall be required.
RT	Relief Set Point	Relief and safety valve set point will be verified in accordance with ASME Boiler and Pressure Vessel Code, Section XI, IWB-3511 ASME PTC 25.3-1976 and PNPP Technical Specifications.
FS	Fail Safe Test	Valves with fail safe actuators (e.g., air operated, spring loaded, solenoid operated, and hydraulic operated) will be tested to verify proper fail safe operation upon loss of actuator power.
PI	Position Indicator Verification	Valves with remote position indicators will be checked to verify that remote valve position indicators accurately reflect valve position.

TABLE 3.1-2

TEST FREQUENCY (3)

<u>TEST FREQUENCY</u>	<u>OPERATIONAL (1) CONDITION</u>	<u>FREQUENCY OF TESTING</u>
Q	Power Operation	At least once per 92 days
CS	Cold Shutdown	See (2) below
RO	Refueling	Not more than once every two years
5Y	No operational condition limitations	Every five years (see Article IWV-3511). Applies to RT test.
2Y	No operational condition limitations	Every two years (see Article IWV-3300). Applies to PI test.

- (1) Operational conditions are defined in PNPP Technical Specifications.
- (2) Inservice valve testing will commence within 48 hours of reaching the cold shutdown conditions as defined in Generic Relief Request GR-1. Testing not completed before start-up may be completed during subsequent cold shutdowns. Valve testing need not be performed more often than once every three months. In the case of extended cold shutdowns, the testing need not be started within the hours limitation. However, in these instances, all valve testing must be completed prior to start-up.

NOTE: Completion of all valve testing during cold shutdowns is not required if plant operating conditions do not permit testing of specific valves.

- (3) Provisions of PNPP Unit 1 Technical Specification 4.0.2 are applicable to the following required frequencies for performing inservice testing activities.

ASME BOILER AND PRESSURE VESSEL  
CODE AND APPLICABLE ADDENDA  
TERMINOLOGY FOR INSERVICE TESTING  
ACTIVITIES

REQUIRED FREQUENCIES FOR  
PERFORMING INSERVICE TEST  
ACTIVITIES

---

WEEKLY  
MONTHLY  
QUARTERLY OR EVERY 3 MONTHS  
SEMIANNUALLY OR EVERY 6 MONTHS  
EVERY 9 MONTHS  
YEARLY OR QUARTERLY

---

AT LEAST ONCE PER 7 DAYS  
AT LEAST ONCE PER 31 DAYS  
AT LEAST ONCE PER 92 DAYS  
AT LEAST ONCE PER 184 DAYS  
AT LEAST ONCE PER 276 DAYS  
AT LEAST ONCE PER 366 DAYS

TABLE 3.1-2

TEST FREQUENCY (3)  
(Continued)

NOTE: PNPP Unit 1 Technical Specification 4.0.2 states:  
Each Surveillance requirement shall be performed within the specified time interval, with

- a. A maximum allowable extension not to exceed 25% of the surveillance interval, but
- b. The combined time interval for any 3 consecutive surveillance intervals shall not exceed 3.25 times the specified surveillance interval.

SECTION 3.2

RELIEF REQUESTS FOR INSERVICE VALVE TESTING PROGRAM

Valve Relief Request #

VR-1

Systems: All

Valves: All

Class: All

Function: As applicable

Test Requirements: ASME Section XI (IWV-3417b and IWV-3523) states that when corrective action is required as a result of testing, the condition must be corrected within 24 hours or the valve shall be declared inoperative. In the event of testing during cold shutdown, condition shall be corrected prior to start-up.

Basis for Relief: The Perry Nuclear Power Plant Technical Specification limiting conditions for operations, and ASME Section XI, provide the controls by which valves and system are declared inoperative. PNPP Technical Specifications also control entry into various operational conditions, which is generally more restrictive. Failure to meet Section XI testing criteria should not, therefore, preclude plant start-up with that particular component inoperable, nor should the declaration of component or system inoperability be extended to 24 hours. Plant safety is assured by adherence to PNPP Technical Specifications.

Alternate Testing: The ability to declare component or system inoperability, and conduct plant start-up, shall be governed by PNPP Technical Specifications and not by ASME Section XI, IWV-3417b and IWV-3523.

Valve Relief Request #

VR-2

System: As applicable

Valves: All fast-acting valves with short-stroke time less than or equal to 3 seconds.

Category: A, B

Class: As applicable

Function: As applicable

Test Requirements: ASME Section XI IWV-3417(a) requires a comparison of the most recent stroke time measurement with that of the previous test.

Basis for Relief: Rapid acting valves have stroke times of such short durations that comparison of measurements with previous data for specified percentage increases is not indicative of degrading valve performance. With measurement of stroke times to the nearest second per IWV-3413(b), a very small increase in stroke time will result in an extremely large percentage of change. Verification that these valves meet a specified maximum stroke time of a relatively short duration, should provide adequate assurance of operability.

Alternate Testing: When stroke times of rapid acting valves are measured, the criterion for determining acceptability will be the specified maximum stroke time of 3 seconds. Actual trending or measurement of rapid acting valve stroke times will not be made other than confirmation that they stroke less than 3 seconds.

Valve Relief Request #

VR-3

System: As applicable

Valves: Valve Test Tables

Category: A and AC

Class: As applicable

Function: As applicable

Test Requirements: IWV-3427(b); corrective action

For valves 6 in. nominal pipe size and larger, if a leakage rate exceeds the rate determined by the previous test by an amount that reduces the margin between measured leakage rate and the maximum permissible rate by 50% or greater, the test frequency shall be double.  
(IWV-3427(b)).

Basis for Relief: These valves are located inside containment and testing on an increased frequency would increase exposure for testing personnel. Testing is now being performed during refueling to minimize exposure. With increased frequency, operational constraints would be placed upon the plant requiring possible shut down for testing. Therefore, corrective action per IWV-3427(b) will not be used due to ALARA considerations and operational constraints on the plant.

Alternate Testing: Valves will be replaced or repaired as required when the leakage rate exceeds the one (1) gpm maximum leakage rate as stated in Perry Nuclear Power Plant Technical Specifications.

Valve Relief Request #

VR-4

System: As applicable

Valves: All Fast-acting solenoid operated valves with short-stroke time less than or equal to 3 seconds.

Category: A, B

Class: As applicable

Test Requirements: Section XI, IWV-3300 Valve Position Indicator Verification. Valves with remote position indicators, shall be visually observed during a plant shutdown, at least once every two years to verify that remote valve indications accurately reflect valve operation.

Basis for Relief: These valves require disassembly of the actuator components to verify operation. Additionally, each valve has minimal stroke time (less than 1 second) and stem travel (approximately 0.075 inch). The accurate visual verification of valve operation is not possible due to the minimal stem travel and short stroke period. This visual observation would not contribute significantly to the assurance of safe and proper valve operation.

Alternate Testing: The valve open indication/open position (energized) is verified by normal system parameters during operation. The valve shut indication/shut position (de-energized) is verified by 10CFR50 Appendix J testing during refueling outages or by normal system operating parameters.

Valves affected by this general exception, see following listing:

1D17-F079A	1D17-F079B	1D17-F089A	1D17-F089B
1D23-F010A	1D23-F010B	1D23-F020A	1D23-F020B
1D23-F030A	1D23-F030B	1D23-F040A	1D23-F040B
1D23-F050C	1E12-F060A	1E12-F060B	1E12-F075A
1E12-F075B	1G43-F050A	1G43-F050B	1G43-F060
1M17-F055	1M17-F065	1M51-F210A	1M51-F210B
1M51-F220A	1M51-F220B	1M51-F230A	1M51-F230B
1M51-F240A	1M51-F240B	1M51-F250A	1M51-F250B
1M51-F260A	1M51-F260B	1M51-F270A	1M51-F270B
1P52-F160	1P52-F170	1P53-F010	1P53-F015
1P53-F020	1P53-F025	1P53-F030	1P53-F035
1P53-F040	1P53-F045	1P53-F070	1P53-F075
1P87-F001	1P87-F007	1P87-F025	1P87-F028
1P87-F037	1P87-F046	1P87-F049	1P87-F052
1P87-F055	1P87-F065	1P87-F071	1P87-F074
1P87-F077	1P87-F083		



Valve Relief Request #

VR-5

System: Feedwater (N27)

Valves: 1B21-F065A, 1B21-F065B

Category: A

Class: 2

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every three months.

IWV-3413; Power operated valves - full stroke time

Basis for Relief: Exercising these valves during normal operation would require a significant reduction in power and stopping one line of feedwater flow. Isolation of one line of feedwater flow during normal operation introduces undesirable operational transients and could result in a reactor trip. Partial stroke testing cannot be performed since valves stroke fully on initiation.

Alternate Testing: During cold shutdown, perform full exercise and full stroke time test on these valves.

Valve Relief Request #

VR-6

System: Nuclear Boiler ADS and Relief/Safety Valves (B21)

Valves: 1B21-F041A, B, C, D, E, F, G, K  
1B21-F047B, C, D, F, G, H  
1B21-F051A, B, C, D, G

Category: B, C

Class: 1

Function: Provide automatic depressurization and/or overpressure protection of the reactor coolant pressure boundary.

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every three months.

IWV-3413; Power operated valves - full stroke time and

IWV-3415; Fail Safe - at least once every three months.

Basis for Relief: If the valves were to fail to reclose after testing the plant would be placed in a LOCA condition. Stroke time is a function of reactor pressure and, therefore, shall not be measured during exercising test. In addition, a recent study (BWR Owners Group Evaluation of NUREG-0737 Item II.K.3.16 Reduction of Challenges and Failures of Relief Valves) recommends that the number of ADS and/or relief/safety valves openings be reduced as much as possible. Based on this study and the potential for causing a possible LOCA condition, exercise testing of the ADS and/or relief/safety valves is delayed to refueling.

Alternate Testing: Exercise valves during refueling (i.e., start-up)

Valve Relief Request #

VR-7

System: Main Steam System (N11)

Valves: 1N11-F020A, 1N11-F020B, 1N11-F020C, 1N11-F020D

Category: B

Class: 2

Function: Main Steam Shutoff Valve

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every three months.

IWV-3413; Power operated valves - full stroke time

Basis for Relief: Valves fully stroke on initiation of close signal making partial valve stroke impractical. Full stroke exercise results in loss of steam flow from one main steam line to the turbine creating adverse transients and potential of valve damage from steam erosion of valve seat.

Alternate Testing: Exercise valves during cold shutdown

Valve Relief Request #

VR-8

System: Reactor Coolant Pressure Isolation Valves - Motor operated (e.g.; RHR, LPCS, HPCS, and Feedwater Leakage Control).

Valves: 1E12-F008, 1E12-F009, 1E12-F023, 1E12-F042A, 1E12-F042B, 1E12-F042C, 1E12-F053A, 1E12-F053B, 1E21-F005, 1E22-F004, 1N27-F737, 1N27-F740

Category: A

Class: 1, 2

Function: Provide pressure isolation from high pressure coolant systems (e.g.; Rx. Coolant, Feedwater, and RCIC-in operation) and other safety-related systems containing low pressure designed components.

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every three months and

IWV-3413; Power operated valves - full stroke time

Basis for Relief: These pressure isolation motor operated valves maintain one of the two high to low pressure barriers during plant operation. To exercise these valves during plant operation would involve a loss of one isolation barrier. There is a significant increase in the probability of causing an internal loss of coolant accident to exercise these motor operated valves quarterly.

Alternate Testing: Exercise valves during cold shutdown

Valve Relief Request #

VR-9

System: Reactor Core Isolation Cooling (E51)

Valves: 1E51-F013

Category: A

Class: 1

Function: Provide primary containment isolation and isolation of the RCIC injection to reactor coolant system

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every three months and

IWV-3413; Power operated valves - full stroke time

Basis for Relief: The RCIC motor operated injection isolation valve is normally closed and provides additional pressure isolation between a high pressure system (i.e., Rx. coolant) and the low pressure designed RCIC components. Testing of the RCIC injection isolation valve during cold shutdown prevents the likelihood of an internal loss of coolant accident. Quarterly testing of the RCIC pump is performed with the motor operated injection isolation valve closed.

Alternate Testing: Exercise valves during cold shutdown

Valve Relief Request #

VR-10

System: Nuclear Boiler (B21)

Valves: 1B21-F022A, 1B21-F022B, 1B21-F022C, 1B21-F022D,  
1B21-F028A, 1B21-F028B, 1B21-F028C, 1B21-F028D

Category: A

Class: 1

Function: Main Steam Isolation Valves

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every  
three months and

IWV-3413; Power operated valves - full stroke time

IWV-3415; Fail Safe - at least once every three months

Basis for Relief: Full stroke exercising results in loss of steam flow from  
one main steam line to the turbine. Recent industry  
information indicates that closing these valves with high  
steam flow in the line may be a large contributing factor  
in observed seat degradation. The valves are designed for  
partial stroke exercising with full steam flow during  
plant operation. The partial stroke test will verify  
operability of the valve and operator.

Alternate Testing: Partially stroke quarterly and full stroke exercise during  
cold shutdown.

Valve Relief Request #

VR-11

System: Control Rod Drive Hydraulic (C11)

Valves: 1C11-F083

Category: A

Class: 2

Function: Condensate Water to Control Rod Drive Outboard Containment Isolation Valve.

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every three months and

IWV-3413; Power operated valves - Full stroke time

Basis for Relief: Failure of valve in the closed position during plant operation would result in a loss of drive water to the control rods. This would inhibit normal operation of the control rods and could result in a reactor shutdown. This valve fully strokes upon initiation and cannot be partial stroke tested.

Alternate Testing: During cold shutdown, perform full exercise and full stroke time test on this valve.

Valve Relief Request #

VR-12

System: Control Rod Drive Hydraulic System (C11)

Valves: 1C11-114, 1C11-126, 1C11-127 (Typical of 177)

Category: B (1C11-126, 1C11-127)  
C (1C11-114)

Class: 2

Function: Control Rod Drive Scram Inlet, Exhaust, and Scram Discharge Header Check.

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every three months and

IWV-3413; Power operated valves - Full stroke time

IWV-3521; Test Frequency - Exercise at least once every three months.

Basis for Relief: These valves operate as an integral part of the hydraulic control unit to rapidly insert control rods. Valves will be tested in accordance with Technical Specification 4.1.3.2 (i.e., maximum scram insertion time). The technical specification requires testing of all controls rods prior to thermal power exceeding 40% of rated thermal power following core alterations or after a reactor shutdown exceeding 120 days. Testing of 10% of the control rods, on a rotating basis, at least once per 120 days of operation.

Alternate Testing: Scram insertion timing shall be substituted for individual valve testing.



Valve Relief Request #

VR-13

System: Nuclear Closed Cooling Water System (P43)

Valves: 1P43-F055, 1P43-F140, 1P43-F215, 1P43-F355, 1P43-F400, 1P43-F410

Category: A (1P43-F055, 1P43-F140, 1P43-F215)  
B (1P43-F355, 1P43-F400, 1P43-F410)

Class: 2

Function: Containment (i.e., drywell and primary) isolation valves for cooling water to the reactor recirculation coolant pumps and other safety-related systems.

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every three months and

IWV-3413; Power operated valves - Full stroke time

Basis for Relief: These valves are the inlet and outlet isolation valves for nuclear closed cooling water. Exercising could result in loss of cooling to the Reactor Coolant Recirculation pumps. The reactor coolant recirculation pumps are normally operated during all plant operating conditions except refueling.

Alternate Testing: Exercise valves during refueling.

Valve Relief Request #

VR-14

System: Reactor Core Isolation Cooling System (E51)

Valves: 1E51-F511

Category: B

Class: 2

Function: RCIC turbine governing valve

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every three months and

IWV-3413; Power operated valves - Full stroke time

IWV-3415; Fail Safe - at least once every three months

Basis for Relief: The RCIC turbine governing valve is a hydraulically operated valve which is positioned by system parameters. The hydraulic control unit is sealed and attempting to exercise the valve by external means could damage the control mechanism. During turbine operation the valve moves in response to control signals. Valve position is steam pressure and turbine speed dependant with repeated throttling being impossible. Operability is adequately demonstrated during turbine operation.

Alternate Testing: Proper operation of the RCIC Turbine governing valve shall be verified by the turbine response during testing.

Valve Relief Request #

VR-15

System: Instrument Air System (P52)

Valves: 1P52-F200, 1P52-F646

Category: A (1P52-F200)  
B (1P52-F646)

Class: 2

Function: Containment (i.e., drywell and primary) isolation valves for air supply to the non-automatic depressurization system and main steam isolation valve accumulators.

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every three months and

IWV-3413; Power operated valves - Full stroke time

Basis for Relief: These isolation valves are within the normal flow path for supply air to the non-automatic depressurization system (ADS) and main steam isolation valve accumulators. This is the normal source of air supply to the non-ADS and MSIV accumulators and exercising of the isolation valves reduces the operational readiness of the systems.

Alternate Testing: Exercise valves during cold shutdown.

Valve Relief Request #

VR-16

System: Safety-Related Instrument Air System (P57)

Valves: 1P57-F015A, 1P57-F015B, 1P57-F020A, 1P57-F020A

Category: A (1P57-F015 A, B)  
B (1P57-F020 A, B)

Class: 2

Function: Containment (i.e., drywell and primary) isolation valves for air supply to the automatic depressurization system (ADS) accumulators.

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every three months and

IWV-3413; Power operated valves - Full stroke time

Basis for Relief: These isolation valves are within the normal flow path for supply air to the automatic depressurization system (ADS) accumulators. This is the normal source of air supply to the ADS accumulators and exercising the isolation valves reduces the operational readiness of the system.

Alternate Testing: Exercise valves during cold shutdown.

Valve Relief Request #

VR-17

System: Reactor Core Isolation Cooling (E51)

Valves: 1E51-F030

Category: C

Class: 2

Function: RCIC Pump Suction Check Valve

Test Requirements: IWV-3521; Test Frequency - Exercise at least once every three months.

Basis for Relief: Normal testing of the RCIC System does not include taking a suction on the suppression pool due to possible contamination of the condensate storage tank. This normally closed valve will be exercised to the fully open position during refueling outages by removing the valve and verifying disc freedom of movement.

Alternate Testing: During refueling outage, disassemble valve and mechanically exercise the disc.

Valve Relief Request #

VR-18

System: Standby Liquid Control (C41)

Valves: 1C41-F006, 1C41-F007

Category: AC

Class: 1

Function: Standby Liquid Control Injection Check Valve

Test Requirements: IWV-3521; Test Frequency - Exercise at least once every three months, quarterly.

Basis for Relief: To verify forward flow operability during normal operation would require firing a squib valve and injecting water into the reactor vessel using the SLC pumps. Injecting water during operation could result in adverse plant conditions such as changes in reactivity, power transients, thermal shock induced cracking and a possible plant trip.

Alternate Testing: Verify forward flow operability during refueling while performing the standby liquid control system injection test, which fires at least one squib valve and pumps demineralized water into the reactor vessel.

Valve Relief Request #

VR-19

System: Feedwater Leakage Control (N27)

Valves: 1N27-F739A, 1N27-F739B, 1B27-F742A, 1N27-F742B

Category: C

Class: 2

Function: These valves allow a flowpath to the feed system during feedwater leakage control operations and provide a pressure isolation from the feed system during normal power operations.

Test Requirements: IWV-3521; Test Frequency - Exercise at least once every three months, quarterly.

Basis for Relief: To demonstrate forward flow operability would require opening upstream Valves 1N27-F737 and 1N27-F740. These valves have pressure interlocks to prevent either full or partial stroke exercising during normal operation.

Alternate Testing: Exercise valves during cold shutdown.

# Valve Relief Request #

VR-20

System: Nuclear Boiler (B21)

Valves: 1B21-F024A, B, C, D  
1B21-F029A, B, C, D  
1B21-F036C, D, G, H, J, K, M, N, R, S, U  
1B21-F039A, B, E, F, L, P, T, V

Category: C

Class: 3

Function: Prevent depressurization of air accumulators on a loss of instrument air or safety-related instrument air.

Test Requirements: IWV-3521; Test Frequency - Exercise at least once every three months, quarterly.

Basis for Relief: Exercising these valves would require isolating the air supply to the accumulators. This could prevent the safety-related (i.e., safety relief and mainsteam isolation valves) valves from performing their design function. An accumulator pressure drop test is performed each refueling outage to verify system integrity. Satisfactory completion of the pressure drop test verifies exercising of these valves in the reverse direction.

Alternate Testing: Exercise valves during refueling.



Valve Relief Request #

VR-21

System: Emergency Service Water (P45)

Valves: 1P45-F575

Category: C

Class: 2

Function: To prevent intersystem leakage from the residual heat removal system to the emergency service water system.

Test Requirements: IWV-3521; Test Frequency - Exercise at least once every three months, quarterly.

Basis for Relief: This valve is closed during normal operation. Exercising in the forward direction would require injecting emergency service water into the RHR system. Injection this water is not desirable due to the poor water quality of the ESW system.

Alternate Testing: During refueling outage, disassemble valve and mechanically exercise the disc or perform a forward flow exercise.

Valve Relief Request #

VR-22

System: Residual Heat Removal Shutdown Cooling (E12)

Valves: E12-F050A, E12-F050B

Category: C

Class: 2

Function: Provide a flowpath for RHR water for shutdown cooling (e.g., using the feedwater nozzles).

Test Requirements: IWV-3521; Test Frequency - Exercise at least once every three months, quarterly.

Basis for Relief: These simple check valves are within the normal flowpath for shutdown cooling (e.g., using the feedwater nozzles). The valves are normally closed during plant operation and require forward flow exercising. Initiation of shutdown cooling shall be used to verify the simple check valve forward flow exercising. Both loops of shutdown cooling should not be required during cold shutdown. Therefore, verification of both shutdown cooling loops (e.g., E12-F050A and E12-F050B) operability shall be performed during refueling.

Alternate Testing: Exercise valve during refueling.

Valve Relief Request #

VR-23

System: Reactor Coolant Pressure Isolation Check Valves (RHR, LPCS, RCIC, and HPCS) of a testable nature.

Valves: 1E12-F041A, E12-F041B, 1E12-F041C, 1E21-F006, 1E22-F005, 1E51-F066, 1E51-F065

Category: AC

Class: 1

Function: Provide pressure isolation of the reactor coolant pressure boundary between the high pressure reactor coolant system and other safety-related systems containing low pressure designed components.

Test Requirements: IWV-3521; Test Frequency - Exercise at least once every three months, quarterly.

Basis for Relief: These pressure isolation valves maintain one of the two high to low pressure barriers during plant operation. To exercise these valves during plant operation would involve a loss of one isolation barrier. There is a significant increase in the probability of an internal loss of coolant accident to exercise these valves quarterly.

Alternate Testing: Exercise valve during cold shutdown.

Valve Relief Request #

VR-24

System: Residual Heat Removal Head Spray Line (E12)

Valves: E12-F019

Category: C

Class: 2

Function: Provide a flowpath for RHR water for head spray collapsing of the steam in the reactor vessel head.

Test Requirements: IWV-3521; Test Frequency - Exercise at least once every three months, quarterly.

Basis for Relief: The simple check valve is within the normal flowpath for RHR head spray to the reactor vessel head. This valve is normally closed during plant operation and requires forward flow exercising. The initiation of head spray when shutting down for refueling shall verify forward flow exercising.

Alternate Testing: Exercise valve during refueling.

Valve Relief Request #

VR-25

System: High Pressure Core Spray System (E22)

Valves: 1E22-F016

Category: C

Class: 2

Function: High Pressure Core Spray Pump Suppression Pool Suction Line Check Valve

Test Requirements: IWV-3521; Test Frequency - Exercise at least once every three months, quarterly.

Basis for Relief: The HPCS suppression pool suction line check valve shall be partially exercised quarterly during suppression pool cleanup operation. The suppression pool is the alternate supply of water for the HPCS system and is not used during the HPCS pump operability testing. The design of the HPCS system precludes ease of valve exercising. This valve shall be disassembled and manually exercised each refueling.

Alternate Testing: Exercise valve during refueling.

Valve Relief Request #

VR-26

System: Safety-Related Instrument Air System

Valves: 1P57-F509A, 1P57-F509B, 1P57-F512A, 1P57-F512B

Category: C

Class: 3

Function: Provide a flowpath for charging air to the ADS safety relief valve accumulators from the air compressors.

Test Requirements: IWV-3521; Test Frequency - Exercise at least once every three months, quarterly.

Basis for Relief: These simple check valves are within the normal flowpath for supply air to the automatic depressurization system (ADS) accumulators. They are normally open during plant operation and required reverse flow exercising. A leak check of these simple check valves shall verify reverse closure. Performance of leak testing shall require depressurization of portions of the safety-related instrument air system. Leak testing during refueling outages will ensure operability of the system to perform the design function.

Alternate Testing: Exercise valve during refueling.

Valve Relief Request #

VR-27

System: Safety Relief Valve (SRV) Discharge Lines (B21)

Valves: 1B21-F037A, B, C, D, E, F, G, H, J, K, L, M, N, P, R, S, T, U, V  
1B21-F078A, B, C, D, E, F, G, H, J, K, L, M, N, P, R, S, T, U, V

Category: C

Class: 3

Function: Vacuum breakers ensure that the safety relief valve discharge line pressure remains equalized.

Test Requirements: IWV-3521; Test Frequency - Exercise at least once every three months, quarterly.

Basis for Relief: The SRV discharge vacuum breakers are to provide a means for releasing a vacuum developed in the discharge line from condensing steam. The vacuum breakers are normally closed during plant operation. The forward flow exercising of these valves can be verified manually. This method of exercising would have adverse safety or ALARA concerns during power operations. Exercising to be performed during cold shutdown.

Alternate Testing: Exercise valve during cold shutdown.

Valve Relief Request #

VR-28

System: Primary Containment Isolation Check Valves

Valves: 1B21-F032A, 1B21-F032B, 1C11-F122, 1G41-F522, 1N27-F559A,  
1N27-F559B, 1P22-F577, 1P43-F721, 1P50-F539, 1P52-F550, 1P54-F1098,  
1P57-F524A, 1P57-F524B

Category: AC

Class: 1, 2

Function: System check valves for systems penetrating primary containment.

Test Requirements: IWV-3521; Test Frequency - Exercise at least once every three months, quarterly.

Basis for Relief: These check valves are the inboard primary containment isolation valves for systems considered inservice during plant operation. The normally open check valves required an exercise in the reverse flow direction. Leak testing of check valves ensure valve exercising in the closed direction. Primary containment leak testing each refueling (i.e., 10 CFR 50, Appendix J) verifies proper valve exercising.

Alternate Testing: Exercise valve during refueling.



Valve Relief Request #

VR-29

System: Drywell Containment Isolation Check Valves

Valves: 1P43-F722, 1P22-F593, 1P52-F639

Category: C

Class: 2

Function: System check valves for systems penetrating drywell containment.

Test Requirements: IWV-3521; Test Frequency - Exercise at least once every three months, quarterly.

Basis for Relief: These check valves are the inboard drywell containment isolation valves for systems considered inservice during plant operation. The normally open check valves required an exercise in the reverse flow direction. Leak testing of check valves ensure valve exercising in the close direction. Drywell containment leak integrity leakage testing (i.e., Technical Specification 4.6.2.2) and individual leak test each refueling verifies proper valve exercising.

Alternate Testing: Exercise valve during refueling.

Valve Relief Request #

VR-30

System: Safety Systems with Thermal Expansion Check Valves

Valves: 1E12-F550, 1E12-F552A, 1E12-F552B, 1E22-F039, 1E51-F090, 1G43-F508A,  
1G43-F508B

Category: C

Class: 1, 2

Function: To relief pressure from thermal expansion between two normally closed valves

Test Requirements: IWV-3521; Test Frequency - Exercise at least once every three months, quarterly and IWV-3522(b) exercising procedure - normally close valves.

Basis for Relief: These valves are installed as a small bypass path around a normally closed valve. During plant and system operations these check valves remain shut and respond with a passive characteristic. Design of systems using thermal expansion check valves preclude testing in the normal manner and a thermal expansion check valve is not required to fully open to perform the design function. Verification that these check valves relieve thermal expansion pressure transients shall be performed during refueling outages.

Alternate Testing: Verify pressure relief during refueling.

Valve Relief Request #

VR-31

System: Water Leg Fill Pumps

Valves: 1E12-F084A, 1E12-F084B, 1E12-F084C, 1E12-F085A, 1E12-F085B,  
1E12-F085C, 1E21-F033, 1E21-F034, 1E22-F006, 1E22-F007,  
1E51-F061, 1E51-F062

Category: C

Class: 2

Function: The water leg discharge check and stop check valves perform a pressure isolation function during the system operation.

Test Requirements: IWV-3522(b) exercising procedure - normally close valves.

Basis for Relief: The water leg fill pumps discharge check and stop check valves are normally open. These valves will be exercised shut quarterly during the appropriate system functional test. The water leg discharge check valves will be verified close by venting the upstream side of the valves. Design of the water leg fill system inhibits individual verification of each valve closure.

Alternate Testing: Verify pressure isolation quarterly.

# Valve Relief Request #

VR-32

System: Nuclear Boiler (B21)

Valves: 1B21-F410A, 1B21-F410B, 1B21-F411A, 1B21-F411B, 1B21-F412A,  
1B21-F412B, 1B21-F413A, 1B21-F413B, 1B21-F414A, 1B21-F414B,  
1B21-F415A, 1B21-F415B, 1B21-F416A, 1B21-F416B, 1B21-F417A,  
1B21-F417B, 1B21-F420A, 1B21-F420B, 1B21-F421A, 1B21-F421B,  
1B21-F422A, 1B21-F422B, 1B21-F423A, 1B21-F423B, 1B21-F424A,  
1B21-F424B, 1B21-F425A, 1B21-F425B, 1B21-F440A, 1B21-F440B,  
1B21-F441A, 1B21-F441B, 1B21-F442A, 1B21-F442B, 1B21-F443A,  
1B21-F443B, 1B21-F444A, 1B21-F444B

Category: B

Class: 3

Function: Provide air to air operators of the nuclear boiler ADS and Relief/Safety valves.

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every three months and

IWV-3413; Power operated valves - Full stroke time

IWV-3415; Fail Safe - at least once every 3 months.

Basis for Relief: These solenoid operated valves are proven operable during the testing of the Nuclear Boiler ADS and Relief/Safety valves. The ADS and Relief/Safety valves would place the plant in a LOCA condition should they fail to reclose after testing. Also, in a recent study (BWR Owners Group Evaluation NUREG-0737, Item II.K.3.16) the number of ADS and/or Relief/Safety Valves opening should be reduced as much as possible. Based on this study, and the potential for causing a possible LOCA condition, exercising these valves by the subsequent ADS and Relief/Safety valves exercising is delayed to refueling. Position indication of each solenoid operated valve will be verified during this testing.

Alternate Testing: Exercising, will be accomplished during the testing of the Nuclear Boiler ADS and Relief/Safety valves during every refueling outage.

Valve Relief Request #

VR-33

System: Nuclear Boiler (B21)

Valves: 1B21-F460, 1B21-F461, 1B21-F462, 1B21-F463, 1B21-F480, 1B21-F481,  
1B21-F482, 1B21-F483

Category: B

Class: 3

Function: Provide air to air operators of the main steam isolation valves.

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every  
three months and

IWV-3413; Power operated valves - Full stroke time

IWV-3415; Fail Safe - at least once every 3 months.

Basis for Relief: These solenoid operated valves are proven operable by  
testing performed on the main steam isolation valves.  
Refer to basis for relief of Valve Relief Request VR-11.

Alternate Testing: Exercising, full stroke timing, and fail safe timing will  
be accredited by the testing of the main steam isolation  
valves during cold shutdown. Position indication of each  
solenoid operated valve will be verified during this  
testing at least once every two years.

Valve Relief Request #

VR-34

System: Suppression Pool Vent Line (E12, E51)

Valves: E12-F103A, E12-F103B, E12-F104A, E12-F104B, E51-F079, E51-F081

Category: C

Class: 2

Function: To provide a vent path to suppression pool for portions of systems in which condensing or cooling of a fluid can cause a negative pressure.

Test Requirements: IWV-3251; Test Frequency - Exercise at least once every three months, quarterly.

Basis for Relief: These check valves provide a vent path to the suppression pool during system operation. The valves remain closed during plant operation and shall be forward flow exercised. The test alignment and practicality of testing would require extended system inoperability. Forward flow exercising will be performed during refueling. A refueling outage allows access for testing and establishment of system nonoperability.

Alternate Testing: Exercise valves each refueling.

Valve Relief Request #

VR-35

System: Nuclear Boiler Head Vent Lines

Valves: B21-F001, B21-F002, B21-F005

Category: B

Class: 1

Function: Provide a path for venting non-condensable gases from the reactor head region.

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every three months and

IWV-3413; Power Operated Valve - Full stroke time

Basis for Relief: Exercising of the B21-F001, B21-F002 and B21-F005 shall be performed during cold shutdown. Opening of the B21-F001 and B21-F002 during operation will allow steam to be released into the suppression pool causing a temperature rise and release of non-condensable gas into the primary containment. Testing B21-F005 during operation would potentially cause isolation of the head vent path to the main steam lines. Also, the B21-F005 valve is not required to operate (i.e., normally open passive) during plant operation.

Alternate Testing: Exercise valves during cold shutdown.

Valve Relief Request #

VR-36

System: Nuclear Boiler Safety Relief Valves (SRVs)

Valves: B21-F041 A, B, C, D, E, F, G, K  
B21-F047 B, C, D, F, G, H  
B21-F051 A, B, C, D, G

Category: BC

Class: 1

Function: To provide a flow path for steam to reduce reactor vessel pressure and heat removal during abnormal plant conditions.

Test Requirements: IWV-3511; Test Frequency - Tested at the end of each time period as defined in Table IWV-3510-1 and IWV-3513  
Additional Tests Requirement.

Basis for Relief: The safety relief valves shall be tested in accordance with PPNP Unit 1 Final Safety Analysis Report which requires a 50% sample of SRVs to be set pressure tested each refueling and 100% visual inspection every 5 years. The FSAR sampling requirements are in excess of ASME code, Section XI requirements.

Alternate Testing: Safety relief valves - relief function - shall be in accordance with PPNP Unit 1 Final Safety Analysis Report test requirements.



Valve Relief Request #

VR-37

System: Reactor Water Cleanup (G33)

Valves: 1G33-F052A, 1G33-F052B

Category: C

Class: 2

Function: Normal Return Flow Path for Reactor Water Cleanup (RWCU) water  
(i.e., after low exchangers) to the reactor vessel via feedwater.

Test Requirements: IWV-3521; Test Frequency - Exercise at least once every  
three months, quarterly.

Basis for Relief: The reactor water cleanup system is inservice during plant  
operation maintaining the above check valves open. The  
function of the RWCU system is to maintain reactor coolant  
clarity and conductivity. Testing requires the RWCU  
system to be in an operating status. Reverse flow  
exercising shall be performed during refueling as plant  
conditions allow.

Alternate Testing: Exercise valves during refueling.

Valve Relief Request #

VR-38

System: Control Rod Drive Hydraulics (C11)

Valves: 1C11-120, 1C11-121, 1C11-122, 1C11-123 (Typical of 177)

Category: B

Class: 2

Function: Direct Control Rod Drive (CRD) for the insertion and withdrawal of control rods.

Test Requirements: IWV-3413; Power operated valves - Full stroke time.

Basis for Relief: The insertion and withdrawal of control rods is accomplished by the positioning of these valves and 1C11-138 (i.e., CRO cooling water check valve). The CRD Units are integrally attached components and notching of control rods causes rapid positioning of these components. The recording of stroke time (e.g., less than tenth of a second) would only be indication of electrical circuitry delay and human response errors. Proper insertion/withdrawal by notching shall verify proper valve operability.

Alternate Testing: Verify control rod movement by notching weekly.

Valve Relief Request #

VR-39

System: Standby Liquid Control Transfer System (C41)

Valves: 1C41-F520

Category: AC

Class: 2

Function: To provide inboard containment isolation.

Test Requirements: IWV-3251; Test Frequency - Exercise at least once every three (3) months, quarterly.

Basis for Relief: This check valve provides containment isolation and allows a flow path from the SBLC transfer tank to the SBLC tank. The SBLC tank is maintained in a constant state of readiness during plant operations. Testing the check valve requires draining borated solution from the SBLC tank while providing demineralized makeup water, thus reducing the system readiness condition. Transferring water during refueling shall verify forward flow exercising when plant operational mode allows the SBLC system to be inoperable.

Alternate Testing: Exercise during refueling.

Valve Relief Request #

VR-40

System: Reactor Water Cleanup System (G33)

Valves: 1G33-F001, 1G33-F004, 1G33-F053, 1G33-F054

Category: A

Class: 1

Function: To provide containment isolation of the Reactor Water Cleanup System.

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every three months and

IWV-3413; Power Operated Valves - Full stroke time.

IWV-3415; Fail Safe - At least once every three months.

Basis for Relief: The Reactor Water Cleanup System is inservice during normal plant operation and provides a backup in post accident analysis. This system ensures that reactor coolant chemistry parameters of pH, chlorides, and activity are maintained within specified limits. These limits are to prevent the likelihood of exceeding 10CFR100 guidelines or allowing stress corrosion cracking of the stainless steel systems. A closure of any valve during surveillance testing would cause a loss of the plant's ability to control chemistry. The operational readiness of these valves shall be verified during cold shutdown.

Alternate Testing: Exercise valve during cold shutdown.

Valve Relief Request #

VR-41

System: Control Rod Drive Hydraulic System (C11)

Valves: 1C11-115

Category: C

Class: 2

Function: Control Rod Drive Accumulator Supply Check Valve.

Test Requirements: IWV-3521; Test Frequency - Exercise at least once every three months

Basis for Relief: This valve operates as an integral part of the hydraulic control unit to rapidly insert control rods. The valve will be tested in accordance with Technical Specification 4.1.3.3.b.2 (Scram Accumulator Pressure Drop Test). The Technical Specification requires verifying that each individual accumulator check valve maintains the associated accumulator pressure above the alarm setpoint for greater than or equal to 10 minutes at least once every 18 months.

The reverse flow exercising of the check valve shall be satisfied by performance of the Accumulator Pressure Drop Test.

Alternate Testing: Accumulator Pressure Drop Test shall be substituted for the check valve exercising each refueling.

Valve Relief Request #

VR-42

System: Residual Heat Removal System (E12)

Valves: 1E12-F054A, 1E12-F054B

Category: C

Class: 2

Function: Residual Heat Removal Heat Exchangers Reactor Core Isolation Cooling  
Check Valve for Steam Condensing Mode.

Test Requirements: IWV-3521; Test Frequency - Exercise at least once every  
three months

Basis for Relief: These valves are used during steam condensing mode  
residual heat removal operation. The steam condensing  
mode is rarely used and requires loss of residual heat  
removal system safety injection and shutdown cooling mode  
of operation. These valves shall be forward flow  
exercised each refueling outage by removing and manually  
exercising.

Alternate Testing: Exercise each refueling.

Valve Relief Request #

VR-43

System: Main Steam Isolation Valve Leakage Control (E32)

Valves: 1E32-F001A, 1E32-F001E, 1E32-F001J, 1E32-F001N, 1E32-F002A,  
1E32-F002E, 1E32-F002J, 1E32-F002N, 1E32-F003A, 1E32-F003E,  
1E32-F003J, 1E32-F003N, 1E32-F006, 1E32-F007, 1E32-F008, 1E32-F009

Category: A (1E32-F001A, -F001E, -F001J, -F001N)  
B (1E32-F002A, -F002E, -F002J, -F002N), (1E32-F003A, -F003E, -F003J,  
-F003N), 1E32-F006, 1E32-F007, 1E32-F008, 1E32-F009

Class: 1, 2

Function: Provides Leakage Control System pressure isolation from the Main  
Steam Line Pressure during normal operation.

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every  
three months and  
IWV-3413; Power Operated Valves - Full Stroke Time

Basis for Relief: These isolation valves receive an isolation signal when  
steam line pressure exceeds 20 psig. To exercise these  
valves during plant operation would involve a loss of one  
isolation barrier and bypassing the safety interlock.  
Exercising of these valves will be performed during cold  
shutdown as to protect the low pressure MSIV Leakage  
Control System from overpressurization.

Alternate Testing: Exercise during cold shutdown

Valve Relief Request #

VR-44

System: Containment Vessel & Drywell Purge (M14)

Valves: 1M14-F045, 1M14-F065, 1M14-F070, 1M14-F085

Category: A (1M14-F045, 1M14-F085)

B (1M14-F065, 1M14-F070)

Class: 1, 2

Function: To provide containment isolation for the Drywell and Containment Purge Systems.

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every three months and  
IWV-3413; Power Operated Valves - Full Stroke Time.  
IWV-3415; Fail Safe - At least once every three months.

Basis for Relief: These valves are placed under "sealed closed" administrative controls during normal plant operations. The valves are maintained sealed closed per Technical Specifications 3.6.1.8.a and 3.6.1.8.c. The term "sealed closed" as used in this context means that the valves are secured in their close position by deactivating the valve motor operator. Testing of the inboard purge valves and drywell purge exhaust isolation valve shall be performed during cold shutdown.

Alternate Testing: Exercise valve during cold shutdown



Valve Relief Request #

VR-45

System: Containment Vessel & Drywell Purge (M14)

Valves: 1M14-F055A, 1M14-F055B, 1M14-F060A, 1M14-F060B

Category: B

Class: 2

Function: To provide drywell isolation for the Drywell Purge Supply System.

Test Requirements: IWV-3411; Test Frequency - Exercise at least once every three months and  
IWV-3413; Power Operated Valves - Full Stroke Time.  
IWV-3415; Fail Safe - At least once every three months.

Basis for Relief: These valves are placed under "sealed closed" administrative controls during normal plant operations. The drywell purge supply train isolation valves are maintained closed per Technical Specification 3.6.1.8.c and seal water is injected between these isolation valves. The seal water is used to minimize the affects of radiation streaming. The term "sealed closed" as used in this context means that the valves are secured in its close position by deactivating the motor operators. The maintaining of drywell integrity and required draining/filling of these lines to perform routine testing would involve extensive maintenance periods. Exercising of these valves shall be deferred to refueling outages.

Alternate Testing: Exercise valve during refueling

SECTION 3.3

VALVE TESTING SYSTEM/ATTACHMENT INDEX AND TEST TABLES

# Valve Testing System/Attachment Index

<u>System</u>	<u>Dwg. No./Rev.</u>	<u>Attachment No.</u>	<u>Page</u>
Nuclear Boiler (B21)	D-302-121/Rev. G D-302-605/Rev. C	1	III-1-1
Reactor Water Recirculation (B33)	D-302-601/Rev. D D-302-602/Rev. B	2	III-2-1
Control Rod Drive Hydraulics (C11)	D-302-871/Rev. D D-302-872/Rev. E	3	III-3-1
Standby Liquid Control (C41)	D-302-691/Rev. C D-302-692/Rev. B	4	III-4-1
Plant Radiation Monitoring (D17)	D-306-004/Rev. A D-806-007/Rev. A	5	III-5-1
Containment Atmosphere Monitoring (D23)	D-302-881/Rev. C	6	III-6-1
Residual Heat Removal (E12)	D-302-641/Rev. G D-302-642/Rev. G D-302-643/Rev. G	7	III-7-1
Low Pressure Core Spray (E21)	D-302-705/Rev. G	8	III-8-1
High Pressure Core Spray (E22)	D-302-701/Rev. H	9	III-9-1
MSIV Leakage Control (E32)	D-302-341/Rev. A D-302-342/Rev. A	10	III-10-1
Reactor Core Isolation Cooling (E51)	D-302-631/Rev. E D-302-632/Rev. E	11	III-11-1
Containment Integrated Leak Rate Testing (E61)	D-302-811/Rev. E	12	III-12-1
Reactor Water Cleanup (G33)	D-302-671/Rev. E D-302-672/Rev. E	13	III-13-1

Valve Testing System/Attachment Index  
Continued

<u>System</u>	<u>Dwg. No./Rev.</u>	<u>Attachment No.</u>	<u>Page</u>
Fuel Pool Cooling and Cleanup (G41)	D-302-651/Rev. G D-302-654/Rev. D D-302-655/Rev. D	14	III-14-1
Suppression Pool Cleanup (G42)	D-302-681/Rev. H	15	III-15-1
Suppression Pool Makeup (G43)	D-302-686/Rev. B	16	III-16-1
Liquid Radwaste (G50)	D-302-737/Rev. L	17	III-17-1
Liquid Radwaste Sumps (G61)	D-302-739/Rev. J D-302-740/Rev. K	18	III-18-1
Containment Vessel and Drywell Purge (M14)	D-912-604/Rev. N	19	III-19-1
Drywell and Containment Vacuum Relief (M17)	D-912-606/Rev. J	20	III-20-1
Combustible Gas Control (M51)	D-302-831/Rev. F D-302-832/Rev. C	21	III-21-1
Main Steam (N11)	D-302-011/Rev. K	22	III-22-1
Main, Reheat, Extraction, and Misc., Drains (N27)	D-302-121/Rev. F	23	III-23-1
Feedwater Leakage Control (N27)	D-302-082/Rev. L D-302-971/Rev. A	24	III-24-1
Condensate Transfer and Storage (P11)	D-302-102/Rev. J	25	III-25-1
Mixed Bed Demin, and Distribution (P22)	D-302-713/Rev. L	26	III-26-1
Emergency Closed Cooling Water (P42)	D-302-621/Rev. F D-302-622/Rev. D	27	III-27-1

Valve Testing System/Attachment Index  
Continued

<u>System</u>	<u>Dwg. No./Rev.</u>	<u>Attachment No.</u>	<u>Page</u>
Nuclear Closed Cooling (P43)	D-302-613/Rev. F	28	III-28-1
Emergency Service Water (P47)	D-302-791/Rev. G D-302-792/Rev. G	29	III-29-1
Control Complex Chilled Water (P47)	D-913-001/Rev. R D-913-002/Rev. K	30	III-30-1
ESW Screen Wash (P49)	D-302-214/Rev. J	31	III-31-1
Containment Vessel Chilled Water (P50)	D-913-008/Rev. J	32	III-32-1
Service Air Distribution (P51)	D-302-242/Rev. F	33	III-33-1
Instrument Air (P52)	D-302-243/Rev. C	34	III-34-1
Penetration Pressurization (P53)	D-302-761/Rev. A	35	III-35-1
Fire Service Water and CO <sub>2</sub> (P54)	D-914-003/Rev. L D-914-005/Rev. G	36	III-36-1
Safety-Related Instrument Air (P57)	D-302-271/Rev. B	37	III-37-1
Nitrogen Supply (P86)	D-302-950/Rev. B	38	III-38-1
Post Accident Sampling (P87)	D-302-431/Rev. B	39	III-39-1
Standby Diesel Generator Starting Air (R44)	D-302-351/Rev. G	40	III-40-1
Standby Diesel Generator Fuel Oil (R45)	D-302-352/Rev. G D-302-356/Rev. A	41	III-41-1

Valve Testing System/Attachment Index  
Continued

<u>System</u>	<u>Dwg. No./Rev.</u>	<u>Attachment No.</u>	<u>Page</u>
Standby Diesel Generator Jacket Water (R46)	D-302-354/Rev. B	42	III-42-1
Standby Diesel Generator Lube Oil (R47)	D-302-353/Rev. E	43	III-43-1

DW218/C/89/db

Rev. 1

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 1

VALVE TEST TABLES

FOR

NUCLEAR BOILER (B21)

DWG. NO. D-302-121

D-302-605

## PERRY PLANT UNIT 1

SYSTEM: NUCLEAR BOILER (B21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605  
DWG. NO. D-302-121

PAGE 1 OF 20

VALVE NO.	CLASS AND DWG. COOF.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F001	1 E-13	B ACTIVE	2 GLV	MOV	C	FE-Q ST-Q PI-2Y	C 30		VR-35	
1B21-F002	1 D-13	B ACTIVE	2 GLV	MOV	C	FE-Q ST-Q PI-2Y	C 30		VR-35	
1B21-F005	1 D-13	B PASSIVE	2 GLV	MOV	O	FE-Q ST-Q PI-2Y	C 30		VR-35	
1B21-F016	1 D-11	A ACTIVE	3 GTV	MOV	O	FE-Q ST-Q LJ-RO PI-2Y	C 15			
1B21-F017	2 D-10	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1B21-F018	2 D-10	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1B21-F019	1 D-10	A ACTIVE	3 GTV	MOV	O	FE-Q ST-Q LJ-RO PI-2Y	C 15			



PERRY PLANT UNIT 1

SYSTEM: NUCLEAR BOILER (B21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 2 OF 20

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F022A	1 C-8	A ACTIVE	26 GLV	POV	0	PE-Q FE-Q ST-Q FS-Q LJ-RO PI-2Y	C 5		VR-10	SEE TECH. SPEC. 4.4.7
1B21-F022B	1 E-9	A ACTIVE	26 GLV	POV	0	PE-Q FE-Q ST-Q FS-Q LJ-RO PI-2Y	C 5		VR-10	SEE TECH. SPEC. 4.4.7
1B21-F022C	1 F-9	A ACTIVE	26 GLV	POV	0	PE-Q FE-Q ST-Q FS-Q LJ-RO PI-2Y	C 5		VR-10	SEE TECH. SPEC. 4.4.7
1B21-F022D	1 F-9	A ACTIVE	26 GLV	POV	0	PE-Q FE-Q ST-Q FS-Q LJ-RO PI-2Y	C 5		VR-10	SEE TECH. SPEC. 4.4.7
1B21-F024A	3 B-8	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F024B	3 E-9	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F024C	3 F-9	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	

## PERRY PLANT UNIT 1

SYSTEM: NUCLEAR BOILER (B21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 3 OF 20

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F024D	3 F-9	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F028A	1 C-6	A ACTIVE	26 GLV	POV	0	PE-Q FE-Q ST-Q FS-Q LJ-R0 PI-2Y	C 5		VR-10	SEE TECH. SPEC. 4.4.7
1B21-F028B	1 E-9	A ACTIVE	26 GLV	POV	0	PE-Q FE-Q ST-Q FS-Q LJ-R0 PI-2Y	C 5		VR-10	SEE TECH. SPEC. 4.4.7
1B21-F028C	1 F-9	A ACTIVE	26 GLV	POV	0	PE-Q FE-Q ST-Q FS-Q LJ-R0 PI-2Y	C 5		VR-10	SEE TECH. SPEC. 4.4.7
1B21-F028D	1 F-9	A ACTIVE	26 GLV	POV	0	PE-Q FE-Q ST-Q FS-Q LJ-R0 PI-2Y	C 5		VR-10	SEE TECH. SPEC. 4.4.7
1B21-F029A	3 B-6	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F029B	3 E-9	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	

## PERRY PLANT UNIT 1

SYSTEM: NUCLEAR BOILER (B21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 4 OF 20

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F029C	3 F-9	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F029D	3 F-9	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F036C	3 B-11	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F036D	3 B-11	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F036G	3 B-11	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F036H	3 B-11	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F036J	3 B-11	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F036K	3 B-11	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F036M	3 B-11	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F036N	3 B-11	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	

## PERRY PLANT UNIT 1

SYSTEM: NUCLEAR BOILER (B21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 5 OF 20

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F036R	3 B-11	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F036S	3 B-11	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F036U	3 B-11	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F037A	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F037B	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F037C	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F037D	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F037E	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F037F	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F037G	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	

SYSTEM: NUCLEAR BOILER (B21)

PERRY PLANT UNIT 1

VALVE TEST TABLE REV. 1

DWG. NO. D-502-605

PAGE 6 OF 20

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F037H	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F037J	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F037K	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F037L	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F037M	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F037N	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F037P	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F037R	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F037S	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F037T	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	

## PERRY PLANT UNIT 1

SYSTEM: NUCLEAR BOILER (B21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 7 OF 20

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F037U	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F037V	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F039A	3 D-10	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F039B	3 D-10	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F039E	3 D-10	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F039F	3 D-10	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F039L	3 D-10	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F039P	3 D-10	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F039T	3 D-10	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	
1B21-F039V	3 D-10	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-20	

## PERRY PLANT UNIT 1

SYSTEM: NUCLEAR BOILER (B21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 8 OF 20

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F041A	1 D-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE (ADS)
1B21-F041B	1 D-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE (ADS)
1B21-F041C	1 C-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE
1B21-F041D	1 C-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE
1B21-F041E	1 D-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE (ADS)
1B21-F041F	1 D-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE (ADS)

PERRY PLANT UNIT 1

SYSTEM: NUCLEAR BOILER (B21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 9 OF 20

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F041G	1 C-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE
1B21-F041K	1 C-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE
1B21-F047B	1 C-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE
1B21-F047C	1 C-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE
1B21-F047D	1 D-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE (ADS)
1B21-F047F	1 C-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE



SYSTEM: NUCLEAR BOILER (B21)

PERRY PLANT UNIT 1

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 10 OF 20

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F047G	1 C-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE
1B21-F047H	1 D-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE (ADS)
1B21-F051A	1 C-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE
1B21-F051B	1 C-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE
1B21-F051C	1 D-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE (ADS)
1B21-F051D	1 C-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE

SYSTEM: NUCLEAR BOILER (B21)

## PERRY PLANT UNIT 1

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 11 OF 20

DWG. NO. D-302-121

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F051G	1 D-10	BC ACTIVE	10 REV	SEV POV	DE	RT-5Y FE-Q ST-Q FS-Q PI-2Y			VR-6 VR-36	DIKKERS VALVE (ADS)
1B21-F067A	2 C-7	A ACTIVE	1½ GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 22.5			
1B21-F067B	2 C-6	A ACTIVE	1½ GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 22.5			
1B21-F067C	2 C-8	A ACTIVE	1½ GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 22.5			
1B21-F067D	2 C-7	A ACTIVE	1½ GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 22.5			
1B21-F068	2 E-7	B ACTIVE	2 GLV	MOV	C	FE-Q ST-Q PI-2Y	C 30			
1B21-F069	2 D-7	B ACTIVE	2 GLV	MOV	C	FE-Q ST-Q PI-2Y	C 30			

SYSTEM: NUCLEAR BOILER (B21)

PERRY PLANT UNIT 1

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 12 OF 20

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F078A	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F078B	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F078C	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F078D	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F078E	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F078F	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F078G	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F078H	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F078J	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F078K	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	

## PERRY PLANT UNIT 1

SYSTEM: NUCLEAR BOILER (B21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 13 OF 20

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F078L	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F078M	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F078N	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F078P	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F078R	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F078S	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F078T	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F078U	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F078V	3 B-10	C ACTIVE	6 CHV	SEV	0	FE-Q		F	VR-27	
1B21-F410A	3 D-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.

## PERRY PLANT UNIT 1

SYSTEM: NUCLEAR BOILER (B21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 14 OF 20

VALVE NO.	CLASS AND DWG. CCOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F410B	3 D-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F411A	3 D-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F411B	3 D-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F412A	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F412B	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F413A	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F413B	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.

## PERRY PLANT UNIT 1

SYSTEM: NUCLEAR BOILER (B21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 15 OF 20

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F414A	3 D-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F414B	3 D-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F415A	3 D-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F415B	3 D-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F416A	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F416B	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F417A	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.

## PERRY PLANT UNIT 1

SYSTEM: NUCLEAR BOILER (B21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 16 OF 20

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F417B	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F420A	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F420B	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F421A	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F421B	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F422A	3 D-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F422B	3 D-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.

## PERRY PLANT UNIT 1

SYSTEM: NUCLEAR BOILER (B21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 17 OF 20

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F423A	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F423B	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F424A	3 B-11	P ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F424B	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F425A	3 D-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F425B	3 D-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F440A	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.



## PERRY PLANT UNIT 1

SYSTEM: NUCLEAR BOILER (B21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 18 OF 20

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F440B	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F441A	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F441B	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F442A	3 D-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F442B	3 D-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F443A	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F443B	3 B-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.

## PERRY PLANT UNIT 1

SYSTEM: NUCLEAR BOILER (B21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 19 OF 20

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE/ PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F444A	3 D-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F444B	3 D-11	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-32	SEE TECH. SPEC. 4.5.1.e.
1B21-F460	3 B-8	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-33	SEE TECH. SPEC. 4.4.7.
1B21-F461	3 B-8	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-33	SEE TECH. SPEC. 4.4.7.
1B21-F462	3 B-8	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-33	SEE TECH. SPEC. 4.4.7.
1B21-F463	3 B-8	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-33	SEE TECH. SPEC. 4.4.7.
1B21-F480	3 B-6	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-33	SEE TECH. SPEC. 4.4.7.

## PERRY PLANT UNIT 1

SYSTEM: NUCLEAR BOILER (B21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-605

PAGE 20 OF 20

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE/ PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F481	3 B-6	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-33	SEE TECH. SPEC. 4.4.7.
1B21-F482	3 B-6	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-33	SEE TECH. SPEC. 4.4.7.
1B21-F483	3 B-6	B ACTIVE	2 TWV	SOV	C	FE-Q ST-Q FS-Q PI-2Y			VR-33	SEE TECH. SPEC. 4.4.7.

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 2

VALVE TEST TABLES

FOR

REACTOR WATER RECIRCULATION (B33)

DWG. NO. D-302-601

D-302-602

## PERRY PLANT UNIT 1

SYSTEM: REACTOR WATER RECIRCULATION (B33)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-602

PAGE 1 OF 1

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B33-F019	2 A-6	B ACTIVE	3/4 DIV	POV	C	FE-Q ST-Q FS-Q PI-2Y	0 5			
1B33-F020	2 A-4	B ACTIVE	3/4 DIV	POV	C	FE-Q ST-Q FS-Q PI-2Y	0 5			

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT No. 1

SECTION 3.3

ATTACHMENT 3

VALVE TEST TABLES

FOR

CONTROL ROD DRIVE HYDRAULICS (C11)

DWG. NO. D-302-871

D-302-872

PERRY PLANT UNIT 1

SYSTEM: CONTROL ROD DRIVE HYDRAULICS (C11)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-871  
D-302-872

PAGE 1 OF 3

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1C11-F010	2 C-11	B ACTIVE	1 GLV	POV	0	FE-Q ST-Q FS-Q PI-2Y	C 15			
1C11-F011	2 F-10	B ACTIVE	2 GLV	POV	0	FE-Q ST-Q FS-Q PI-2Y	C 30			
1C11-F083	2 J-6	A ACTIVE	2½ GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 12.5		VR-11	
1C11-F122	2 F-14	AC ACTIVE	2½ CHV	SEV	0	FE-Q LJ-R0		R	VR-28	
1C11-F128	2 J-5	A PASSIVE	¾ GLV	MAN	LC	LJ-R0				
1C11-F129	2 J-5	A PASSIVE	¾ GLV	MAN	LC	LJ-R0				
1C11-F180	2 F-11	B ACTIVE	1 GLV	POV	0	FE-Q ST-Q FS-Q PI-2Y	C 15			
1C11-F181	2 F-11	B ACTIVE	2 GLV	POV	0	FE-Q ST-Q FS-Q PI-2Y	C 30			

## PERRY PLANT UNIT 1

SYSTEM: CONTROL ROD DRIVE HYDRAULICS (C11)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-871  
D-302-872

PAGE 2 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
Assembly 1C11-114	2 B-6	C ACTIVE	3/4 CHV	SEV	C	FE-Q		F	VR-12	Typical of 177 CRD HYD Units.
Assembly 1C11-115	2 C-12	C ACTIVE	3/4 CHV	SEV	O	FE-Q		R	VR-41	Typical of 177 CRD HYD Units.



## PERRY PLANT UNIT 1

SYSTEM: CONTROL ROD DRIVE HYDRAULICS (C11)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-872

PAGE 3 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
Assembly 1C11-120	2 C-9	B ACTIVE	3/4 GTV	SOV	C	FE-Q ST-Q FS-Q	0 3		VR-2 VR-38	Typical of 177 CRD HYD Units.
Assembly 1C11-121	2 C-8	B ACTIVE	3/4 GTV	SOV	C	FE-Q ST-Q FS-Q	0 3		VR-2 VR-38	Typical of 177 CRD HYD Units.
Assembly 1C11-122	2 B-8	B ACTIVE	3/4 GTV	SOV	C	FE-Q ST-Q FS-Q	0 3		VR-2 VR-38	Typical of 177 CRD HYD Units.
Assembly 1C11-123	2 B-9	B ACTIVE	3/4 GTV	SOV	C	FE-Q ST-Q FS-Q	0 3		VR-2 VR-38	Typical of 177 CRD HYD Units.
Assembly 1C11-126	2 B-10	B ACTIVE	3/4 DIV	POV	O	FE-Q ST-Q FS-Q	C 3		VR-12 VR-2	Typical of 177 CRD HYD Units.
Assembly 1C11-127	2 B-7	B ACTIVE	3/4 DIV	POV	O	FE-Q ST-Q FS-Q	C 3		VR-12 VR-2	Typical of 177 CRD HYD Units.
Assembly 1C11-138	2 C-10	C ACTIVE	3/4 CHV	SEV	O	FE-Q		R		Typical of 177 CRD HYD Units.

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 4

VALVE TEST TABLES

FOR

STANDBY LIQUID CONTROL (C41)

DWG. NO. D-302-691

D-302-692

## PERRY PLANT UNIT 1

SYSTEM: STANDBY LIQUID CONTROL (C41)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-691

PAGE 1 OF 2

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1C41-F001A	2 D-6	B ACTIVE	4 GLV	MOV	C	FE-Q ST-Q PI-2Y	0 20			
1C41-F001B	2 F-6	B ACTIVE	4 GLV	MOV	C	FE-Q ST-Q PI-2Y	0 20			
1C41-F004A	1 D-11	D ACTIVE	1½ GTV	EXV	C	EX-R0				
1C41-F004B	1 G-11	D ACTIVE	1½ GTV	EXV	C	EX-R0				
1C41-F006	1 E-12	AC ACTIVE	1½ CHV	SEV	C	FE-Q LK-R0		F	VR-18	
1C41-F007	1 E-13	AC ACTIVE	1½ CHV	SEV	C	FE-Q LK-R0		F	VR-18	
1C41-F029A	2 D-8	C ACTIVE	1½ REV	SEV	DE	RT-5Y				
1C41-F029B	2 F-8	C ACTIVE	1½ REV	SEV	DE	RT-5Y				
1C41-F033A	2 D-9	C ACTIVE	1½ CHV	SEV	C	FE-Q LK-R0		F		Test with pump test
1C41-F033B	2 G-9	C ACTIVE	1½ CHV	SEV	C	FE-Q LK-R0		F		Test with pump test

## PERRY PLANT UNIT 1

SYSTEM: STANDBY LIQUID CONTROL (C41)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-692

PAGE 2 OF 2

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1C41-F513A	3 G-7	C ACTIVE	2 CHV	SEV	C	FE-Q		F		
1C41-F513B	3 G-9	C ACTIVE	2 CHV	SEV	C	FE-Q		F		
1C41-F518	2 H-5	A PASSIVE	2 GLV	MAN	LC	LJ-R0				
1C41-F519	2 H-5	A PASSIVE	3/4 GLV	MAN	LC	LJ-R0				
1C41-F520	2 H-4	AC ACTIVE	3/4 CHV	SEV	DE	LJ-R0			VR-39	
1C41-F529A	3 G-7	C ACTIVE	1 REV	SEV	DE	RT-5Y				
1C41-F529B	3 G-9	C ACTIVE	1 REV	SEV	DE	RT-5Y				
1C41-F542A	3 E-6	C ACTIVE	3/4 CHV	SEV	C	FE-Q		F		
1C41-F542B	3 D-8	C ACTIVE	3/4 CHV	SEV	C	FE-Q		F		
1C41-F552	2 H-5	A PASSIVE	3/4 GLV	MAN	LC	LJ-R0				

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 5

VALVE TEST TABLES

FOR

PLANT RADIATION MONITORING (D17)

DWG. NO. D-806-004

D-806-007

## PERRY PLANT UNIT 1

SYSTEM: PLANT RADIATION MONITORING (D17)

VALVE TEST TABLE REV. 1

DWG. NO. D-806-004  
D-806-007

PAGE 1 OF 2

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1D17-F071A	2 B-13	A ACTIVE	1 GLV	MOV	0	FE-Q ST-Q FS-Q LJ-R0 PI-2Y	C 3		VR-2	Spring to close, loss of power
1D17-F071B	2 B-14	A ACTIVE	1 GLV	MOV	0	FE-Q ST-Q FS-Q LJ-R0 PI-2Y	C 3		VR-2	Spring to close, loss of power
1D17-F079A	2 B-11	A ACTIVE	1 GLV	SOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 3		VR-2 VR-4	Solenoid to open, solenoid to close
1D17-F079B	2 B-11	A ACTIVE	1 GLV	SOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 3		VR-2 VR-4	Solenoid to open, solenoid to close
1D17-F081A	2 B-13	A ACTIVE	1 GLV	MOV	0	FE-Q ST-Q FS-Q LJ-R0 PI-2Y	C 3		VR-2	Spring to close, loss of power

PERRY PLANT UNIT 1

SYSTEM: PLANT RADIATION MONITORING (D17)

VALVE TEST TABLE REV. 1

DWG. NO. D-806-004  
D-806-007

PAGE 2 OF 2

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1D17-F081B	2 B-14	A ACTIVE	1 GLV	MOV	0	FE-Q ST-Q FS-Q LJ-R0 PI-2Y	C 3		VR-2	Spring to close, loss of power
1D17-F089A	2 B-11	A ACTIVE	1 GLV	SOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 3		VR-2 VR-4	Solenoid to open, solenoid to close
1D17-F089B	2 B-11	A ACTIVE	1 GLV	SOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 3		VR-2 VR-4	Solenoid to open, solenoid to close

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 6

VALVE TEST TABLES

FOR

CONTAINMENT ATMOSPHERE MONITORING (D23)

DWG. NO. D-302-881



## PERRY PLANT UNIT 1

SYSTEM: CONTAINMENT ATMOSPHERE MONITORING (D23)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-881

PAGE 1 OF 2

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1D23-F010A	2 B-4	A ACTIVE	3/4 GLV	SOV	0	FE-Q ST-Q FS-Q LK-RO PI-2Y	C 3		VR-2 VR-4	Containment Instrument Line
1D23-F010B	2 B-11	A ACTIVE	3/4 GLV	SOV	0	FE-Q ST-Q FS-Q LK-RO PI-2Y	C 3		VR-2 VR-4	Containment Instrument Line
1D23-F020A	2 C-4	A ACTIVE	3/4 GLV	SOV	0	FE-Q ST-Q FS-Q LK-RO PI-2Y	C 3		VR-2 VR-4	Containment Instrument Line
1D23-F020B	2 C-11	A ACTIVE	3/4 GLV	SOV	0	FE-Q ST-Q FS-Q LK-RO PI-2Y	C 3		VR-2 VR-4	Containment Instrument Line
1D23-F030A	2 F-4	A ACTIVE	3/4 GLV	SOV	0	FE-Q ST-Q FS-Q LK-RO PI-2Y	C 3		VR-2 VR-4	Containment Instrument Line
1D23-F030B	2 F-11	A ACTIVE	3/4 GLV	SOV	0	FE-Q ST-Q FS-Q LK-RO PI-2Y	C 3		VR-2 VR-4	Containment Instrument Line

PERRY PLANT UNIT 1

SYSTEM: CONTAINMENT ATMOSPHERE MONITORING (D23)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-881

PAGE 2 OF 2

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1D23-F040A	2 F-4	A ACTIVE	3/4 GLV	SOV	0	FE-Q ST-Q FS-Q LK-R0 PI-2Y	C 3		VR-2 VR-4	Containment Instrument Line
1D23-F040B	2 F-11	A ACTIVE	3/4 GLV	SCV	0	FE-Q ST-Q FS-Q LK-R0 PI-2Y	C 3		VR-2 VR-4	Containment Instrument Line
1D23-F050	2 B-4	A ACTIVE	3/4 GLV	SOV	0	FE-Q ST-Q FS-Q LK-R0 PI-2Y	C 3		VR-2 VR-4	Containment Instrument Line

PUMP AND VALVE INSERVICE TESTING PROGRAM  
FOR  
PERRY NUCLEAR POWER PLANT  
UNIT NO. 1

SECTION III  
ATTACHMENT 7

VALVE TEST TABLES  
FOR  
RESIDUAL HEAT REMOVAL (E12)  
DWG. NO. D-302-641  
D-302-642  
D-302-643

PERRY PLANT UNIT 1

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-641

PAGE 1 OF 18

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F003A	2 D-11	B ACTIVE	18 GLV	MOV	O	FE-Q ST-Q PI-2Y	C 90 0 90			
1E12-F011A	2 C-10	A ACTIVE	4 GLV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	0 60			
1E12-F024A	2 F-4	A ACTIVE	18 GTV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	0 90			
1E12-F025A	2 B-4	C ACTIVE	1 REV	SEV	DE	RT-5Y LJ-R0				
1E12-F026A	2 C-12	B ACTIVE	4 GTV	MOV	C	FE-Q ST-Q PI-2Y	C 20			
1E12-F031A	2 J-6	C ACTIVE	18 CHV	SEV	C	FE-Q		F		Test with pump test
1E12-F040	2 E-6	B ACTIVE	8 GLV	MOV	C	FE-Q ST-Q PI-2Y	C 120 0 120			
1E12-F046A	2 G-5	C ACTIVE	6 CHV	SEV	C	FE-Q		F		Test with pump test

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

PERRY PLANT UNIT 1

VALVE TEST TABLE REV. 1

DWG. NO. D-302-641

PAGE 2 OF 18

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F047A	2 E-9	B ACTIVE	18 GTV	MOV	O	FE-Q ST-Q PI-2Y	C 90 0 90			
1E12-F048A	2 D-7	B ACTIVE	18 GLV	MOV	O	FE-Q ST-Q PI-2Y	C 90 0 90			
1E12-F049	2 E-6	B ACTIVE	8 GTV	MOV	C	FE-Q ST-Q PI-2Y	C 40 0 40			
1E12-F052A	2 B-11	B ACTIVE	10 GLV	MOV	C	FE-Q ST-Q PI-2Y	0 150			
1E12-F054A	2 C-12	C ACTIVE	4 CHV	SEV	C	FE-Q		F	VR-42	
1E12-F055A	2 E-8	AC ACTIVE	4 REV	SEV	DE	RT-5Y LJ-RO				
1E12-F060A	2 D-13	B ACTIVE	3/4 GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y	0 3		VR-2 VR-4	

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

PERRY PLANT UNIT 1

VALVE TEST TABLE REV. 1

DWG. NO. D-302-641

PAGE 3 OF 18

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F064A	2 H-5	A ACTIVE	6 GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 8			
1E12-F073A	2 F-8	A ACTIVE	1 GLV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 15 C 15			
1E12-F075A	2 D-13	B ACTIVE	3/4 GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y	0 3		VR-2 VR-4	
1E12-F084A	2 H-6	C ACTIVE	1 1/2 CHV	SEV	0	FE-Q		R	VR-31	
1E12-F085A	2 H-6	C ACTIVE	1 1/2 SCK	SEV	0	FE-Q		R	VR-31	
1E12-F087A	2 B-10	B ACTIVE	6 GLV	MOV	C	FE-Q ST-Q PI-2Y	C 90			

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

PERRY PLANT UNIT 1

VALVE TEST TABLE REV. 1

DWG. NO. D-302-641

PAGE 4 OF 18

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F103A	2 E-8	C ACTIVE	1 1/2 CHV	SEV	C	FE-Q		F	VR-34	
1E12-F104A	2 E-8	C ACTIVE	1 1/2 CHV	SEV	C	FE-Q		F	VR-34	
1E12-F512A	2 F-3	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F513A	2 G-4	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F514A	2 H-4	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F515A	2 E-8	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F549A	2 E-8	A PASSIVE	3/4 GLV	MAN	C	LJ-RO				
1E12-F552A	2 D-4	C ACTIVE	10 SCK	SEV	C	FE-Q		F	VR-30	
1E12-F585A	2 G-4	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F586A	2 H-4	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				

PERRY PLANT UNIT 1

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-641

PAGE 5 OF 18

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F587A	2 E-8	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				



## PERRY PLANT UNIT 1

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-642

PAGE 6 OF 18

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F004A	2 H-13	A ACTIVE	24 GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 120 C 120			
1E12-F004B	2 H-5	A ACTIVE	24 GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 120 C 120			
1E12-F005	2 H-13	C ACTIVE	1 REV	SEV	DE	RT-5Y LJ-R0				
1E12-F006A	2 H-14	B ACTIVE	18 GTV	MOV	C	FE-Q ST-Q PI-2Y	0 33			
1E12-F006B	2 H-4	B ACTIVE	18 GTV	MOV	C	FE-Q ST-Q PI-2Y	0 33			
1E12-F008	1 G-13	A ACTIVE	20 GTV	MOV	C	FE-Q ST-Q LC-R0 PI-2Y	C 33 0 90		VR-8	
1E12-F009	1 G-11	A ACTIVE	20 GTV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	C 33 0 90		VR-8	
1E12-F010	1 F-10	NA PASSIVE	20 GTV	MAN	0	PI-2Y				Maintenance only

PERRY PLANT UNIT 1

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-642

PAGE 7 OF 18

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F017A	2 H-13	C ACTIVE	1 REV	SEV	DE	RT-5Y				
1E12-F017B	2 H-5	C ACTIVE	1 REV	SEV	DE	RT-5Y				
1E12-F017C	2 F-4	C ACTIVE	1 REV	SEV	DE	RT-5Y				
1E12-F019	1 B-13	AC ACTIVE	6 CHV	SEV	C	FE-Q LK-R0		F	VR-24	
1E12-F023	1 B-13	A ACTIVE	6 GLV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	C 90 C 90		VR-8	
1E12-F025C	2 C-4	C ACTIVE	1 REV	SEV	DE	RT-5Y LJ-R0				
1E12-F027A	2 D-13	A ACTIVE	12 GTV	MOV	O	FE-Q ST-Q LJ-R0 PI-2Y	C 60 O 60			

## PERRY PLANT UNIT 1

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-642

PAGE 8 OF 18

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F027B	2 D-5	A ACTIVE	12 GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 60 0 60			
1E12-F028A	2 A-11	A ACTIVE	12 GTV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	C 60 0 60			
1E12-F028B	2 A-7	A ACTIVE	12 GTV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	C 60 0 60			
1E12-F037A	2 B-11	A ACTIVE	12 GLV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	C 180			
1E12-F037B	2 B-6	A ACTIVE	12 GLV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	C 180			
1E12-F039A	1 D-10	NA PASSIVE	12 GTV	MAN	0	PI-2Y				Maintenance only

## PERRY PLANT UNIT 1

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-642

PAGE 9 OF 18

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F039B	1 D-8	NA PASSIVE	12 GTV	MAN	0	PI-2Y				Maintenance only
1E12-F039C	1 C-8	NA PASSIVE	12 GTV	MAN	0	PI-2Y				Maintenance only
1E12-F041A	1 D-11	AC ACTIVE	12 CHV	SEV MOV	0	FE-Q LK-R0 PI-2Y		F	VR-23	Testable check valve
1E12-F041B	1 D-7	AC ACTIVE	12 CHV	SEV MOV	0	FE-Q LK-R0 PI-2Y		F	VR-23	Testable check valve
1E12-F041C	1 C-7	AC ACTIVE	12 CHV	SEV MOV	0	FE-Q LK-R0 PI-2Y		F	VR-23	Testable check valve
1E12-F042A	1 D-12	A ACTIVE	12 GTV	MOV	C	FE-Q ST-Q LC-R0 PI-2Y	C 27 0 27		VR-8	
1E12-F042B	1 D-6	A ACTIVE	12 GTV	MOV	C	FE-Q ST-Q LC-R0 PI-2Y	C 27 0 27		VR-8	

## PERRY PLANT UNIT 1

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-642

PAGE 10 OF 18

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F042C	1 C-5	A ACTIVE	12 GTV	MOV	C	FE-Q ST-Q LC-R0 PI-2Y	C 27 0 27		VR-8	
1E12-F050A	2 E-13	AC ACTIVE	12 CHV	SEV	C	FE-Q LK-R0		F	VR-22	
1E12-F050B	2 E-4	AC ACTIVE	12 CHV	SEV	C	FE-Q LK-R0		F	VR-22	
1E12-F053A	2 E-14	A ACTIVE	12 GLV	MOV	C	FE-Q ST-Q LK-R0 PI-2Y	0 33		VR-8	
1E12-F053B	2 E-3	A ACTIVE	12 GLV	MOV	C	FE-Q ST-Q LK-R0 PI-2Y	0 33		VR-8	
1E12-F056C	2 C-6	A PASSIVE	3/4 GLV	MAN	LC	LJ-R0				
1E12-F057C	2 C-6	A PASSIVE	3/4 GLV	MAN	LC	LJ-R0				
1E12-F061	1 B-14	A PASSIVE	1 1/2 GLV	MAN	LC	LJ-R0				
1E12-F062	1 B-14	A PASSIVE	1 1/2 GLV	MAN	LC	LJ-R0				

## PERRY PLANT UNIT 1

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-642

PAGE 11 OF 18

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F105	2 G-5	A ACTIVE	2 1/4 GTV	MOV	O	FE-Q ST-Q LJ-R0 PI-2Y	C 120			
1E12-F537A	2 A-9	B ACTIVE	12 GTV	MOV	C	FE-Q ST-Q PI-2Y	C 90 0 90			
1E12-F537B	2 A-8	B ACTIVE	12 GTV	MOV	C	FE-Q ST-Q PI-2Y	C 90 0 90			
1E12-F550	1 G-11	AC ACTIVE	3/4 CHV	SEV	C	FE-Q LC-R0		F	VR-30	
1E12-F556A/ 557A	2 F-12	A PASSIVE	3/4 GLV	MAN	LC	LJ-R0				
1E12-F556B/ -F557B	2 F-5	A PASSIVE	3/4 GLV	MAN	LC	LJ-R0				
1E12-F558A	2 F-12	AC ACTIVE	1 CHV	SEV	C	LJ-R0				Nonsafety-related system
1E12-F558B	2 F-6	AC ACTIVE	1 CHV	SEV	C	LJ-R0				Nonsafety-related system

## PERRY PLANT UNIT 1

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-642

PAGE 12 OF 18

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F575/ F578	2 B-5	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F576/ -F579	2 G-12	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F599A/ -F600A	2 J-12	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F599B/ -F600B	2 J-5	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F601/ -F602	2 G-5	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F604A	2 D-12	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F604B	2 D-5	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				

## PERRY PLANT UNIT 1

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-643

PAGE 13 OF 18

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F003B	2 D-5	B ACTIVE	18 GLV	MOV	O	FE-Q ST-Q PI-2Y	C 90 0 90			
1E12-F011B	2 C-6	A ACTIVE	4 GLV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	0 60			
1E12-F021	2 C-14	A ACTIVE	18 GLV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	0 90			
1E12-F024B	2 D-13	A ACTIVE	18 GTV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	0 90			
1E12-F025B	2 D-11	C ACTIVE	1 REV	SEV	DE	RT-5Y LJ-R0				
1E12-F026B	2 B-5	B ACTIVE	4 GTV	MOV	C	FE-Q ST-Q PI-2Y	0 20			
1E12-F031B	2 H-10	C ACTIVE	18 CHV	SEV	C	FE-Q		F		Test with pump test
1E12-F031C	2 E-11	C ACTIVE	18 CHV	SEV	C	FE-Q		F		Test with pump test



PERRY PLANT UNIT 1

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-643

PAGE 14 OF 18

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F036	2 B-3	C ACTIVE	3 REV	SEV	DE	RT-5Y				
1E12-F046B	2 G-11	C ACTIVE	6 CHV	SEV	C	FE-Q		F		Test with pump test
1E12-F046C	2 F-13	C ACTIVE	6 CHV	SEV	C	FE-Q		F		Test with pump test
1E12-F047B	2 E-7	B ACTIVE	18 GTV	MOV	O	FE-Q ST-Q PI-2Y	C 90 0 90			
1E12-F048B	2 D-7	B ACTIVE	18 GTV	MOV	O	FE-Q ST-Q PI-2Y	C 90 0 90			
1E12-F052B	2 A-6	B ACTIVE	10 GLV	MOV	C	FE-Q ST-Q PI-2Y	0 150			
1E12-F054B	2 C-5	C ACTIVE	4 CHV	SEV	C	FE-Q		F	VR-42	
1E12-F055B	2 E-8	AC ACTIVE	4 REV	SEV	DE	RT-5Y LJ-RO				

## PERRY PLANT UNIT 1

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-643

PAGE 15 OF 18

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F060B	2 D-4	B ACTIVE	3/4 GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y	C 3		VR-2 VR-4	
1E12-F064B	2 G-11	A ACTIVE	6 GTV	MOV	O	FE-Q ST-Q LJ-R0 PI-2Y	C 8			
1E12-F064C	2 F-13	A ACTIVE	6 GTV	MOV	O	FE-Q ST-Q LJ-R0 PI-2Y	C 8			
1E12-F073B	2 F-8	A ACTIVE	1 GLV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	C 15 C 15			
1E12-F075B	2 D-3	B ACTIVE	3/4 GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y	C 3		VR-2 VR-4	
1E12-F084B	2 F-9	C ACTIVE	1 1/2 CHV	SEV	O	FE-Q		R	VR-31	

## PERRY PLANT UNIT 1

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-643

PAGE 16 OF 18

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F084C	2 E-11	C ACTIVE	1½ CHV	SEV	O	FE-Q		R	VR-31	
1E12-F085B	2 G-9	C ACTIVE	1½ SCK	SEV	O	FE-Q		R	VR-31	
1E12-F085C	2 E-11	C ACTIVE	1½ SCK	SEV	O	FE-Q		R	VR-31	
1E12-F087B	2 B-6	B ACTIVE	6 GLV	MOV	C	FE-Q ST-Q PI-2Y	C 90 0 90			
1E12-F103B	2 E-8	C ACTIVE	1½ CHV	SEV	C	FE-Q		F	VR-34	
1E12-F104B	2 E-8	C ACTIVE	1½ CHV	SEV	C	FE-Q		F	VR-34	
1E12-F512B	2 E-13	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				

## PERRY PLANT UNIT 1

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-643

PAGE 17 OF 18

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F512C	2 E-13	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F513B	2 E-13	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F513C	2 E-13	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F514B	2 G-4	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F514C	2 F-13	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F515B	2 G-4	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F515C	2 F-12	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F549B	2 E-8	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F552B	2 C-10	C ACTIVE	10 SCK	SEV	C	LJ-RO		F	VR-30	
1E12-F570	2 E-9	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				

## PERRY PLANT UNIT 1

SYSTEM: RESIDUAL HEAT REMOVAL (E12)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-643

PAGE 18 OF 18

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E12-F585B	2 G-4	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F585C	2 F-13	A PASSIVE	3/4	MAN	LC	LJ-RO				
1E12-F586B	2 G-4	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F586C	2 F-12	A PASSIVE	3/4	MAN	LC	LJ-RO				
1E12-F587B	2 E-8	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E12-F589	2 E-9	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 8

VALVE TEST TABLES

FOR

LOW PRESSURE CORE SPRAY (E21)

DWG. NO. D-302-705

## PERRY PLANT UNIT 1

SYSTEM: LOW PRESSURE CORE SPRAY (E21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-705

PAGE 1 OF 3

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E21-F001	2 G-9	A ACTIVE	24 GTV	MOV	O	FE-Q ST-Q LJ-R0 PI-2Y	C 120			
1E21-F003	2 C-5	C ACTIVE	14 CHV	SEV	C	FE-Q		F		Test with pump test
1E21-F005	1 C-9	A ACTIVE	12 GTV	MOV	C	FE-Q ST-Q LC-R0 PI-2Y	O 27		VR-8	
1E21-F006	1 C-12	AC ACTIVE	12 CHV	SEV HOV	C	FE-Q LC-R0 PI-2Y		F	VR-23	Testable check valve
1E21-F007	1 C-13	NA PASSIVE	12 GTV	MAN	O	PI-2Y				Maintenance only
1E21-F011	2 E-5	A ACTIVE	4 GTV	MOV	O	FE-Q ST-Q LJ-R0 PI-2Y	C 20 0 20			
1E21-F012	2 D-7	A ACTIVE	4 GLV	MOV	O	FE-Q ST-Q LJ-R0 PI-2Y	C 180			

## PERRY PLANT UNIT 1

SYSTEM: LOW PRESSURE CORE SPRAY (E21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-705

PAGE 2 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E21-F013 -F014	2 D-10	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E21-F018	2 B-7	AC ACTIVE	1 1/2 REV	SEV	DE	RT-5Y LJ-RO				
1E21-F031	2 F-9	C ACTIVE	1 REV	SEV	DE	RT-5Y				
1E21-F033	2 F-7	C ACTIVE	1 1/2 CHV	SEV	O	FE-Q		R	VR-31	
1E21-F034	2 F-6	C ACTIVE	1 1/2 SCK	SEV	O	FE-Q		F	VR-31	
1E21-F501	2 E-8	C ACTIVE	12 CHV	SEV	C	FE-Q		F		Test with pump test IEB: 83-03
1E21-F510/ -F523	2 D-7	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E21-F517/ -F518	2 C-11	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				



## PERRY PLANT UNIT 1

SYSTEM: LOW PRESSURE CORE SPRAY (E21)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-705

PAGE 3 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E21-F519/ -F520	2 C-11	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E21-F526/ -F527	2 G-9	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 9

VALVE TEST TABLES

FOR

HIGH PRESSURE CORE SPRAY (E22)

DWG. NO. D-302-701

## PERRY PLANT UNIT 1

SYSTEM: HIGH PRESSURE CORE SPRAY (E22)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-701

PAGE 1 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E22-F001	2 F-13	B ACTIVE	16 GTV	MOV	O	FE-Q ST-Q PI-2Y	0 80 C 80			
1E22-F002	2 F-13	C ACTIVE	16 CHV	SEV	C	FE-Q		F		Test with pump test
1E22-F004	1 B-7	A ACTIVE	12 GTV	MOV	C	FE-Q ST-Q LC-RO PI-2Y	0 27 C 27		VR-8	
1E22-F005	1 B-4	AC ACTIVE	12 CHV	SEV HOV	C	FE-Q LC-RO PI-2Y		F	VR-23	Testable check valve.
1E22-F006	2 E-9	C ACTIVE	1½ SCK	SEV	O	FE-Q		R	VR-31	
1E22-F007	2 E-9	C ACTIVE	1½ CHV	SEV	O	FE-Q		R	VR-31	
1E22-F010	2 B-9	B ACTIVE	10 GLV	MOV	O	FE-Q ST-Q PI-2Y	C 150			

## PERRY PLANT UNIT 1

SYSTEM: HIGH PRESSURE CORE SPRAY (E22)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-701

PAGE 2 OF 3

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E22-F011	2 B-10	B ACTIVE	10 GLV	MOV	C	FE-Q ST-Q PI-2Y	0 150			
1E22-F012	2 D-10	A ACTIVE	4 GTV	MOV	C	FE-Q ST-Q LJ-RO PI-2Y	0 5			
1E22-F014	2 F-10	C ACTIVE	1 REV	SEV	DE	RT-5Y				
1E22-F015	2 F-7	A ACTIVE	24 GTV	MOV	C	FE-Q ST-Q LJ-RO PI-2Y	0 24			
1E22-F016	2 F-7	C ACTIVE	24 CHV	SEV	C	PC-Q FE-Q		F	VR-25	
1E22-F021/ -F022	2 C-6	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E22-F023	2 D-8	A ACTIVE	12 GLV	MOV	C	FE-Q ST-Q LJ-RO PI-2Y	0 180			
1E22-F024	2 C-9	C ACTIVE	16 CHV	SEV	C	FE-Q		F		Test with pump test

## PERRY PLANT UNIT 1

SYSTEM: HIGH PRESSURE CORE SPRAY (E22)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-701

PAGE 3 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E22-F035	2 C-6	AC ACTIVE	1 1/2 REV	SEV	DE	RT-5Y LJ-RO				
1E22-F036	1 B-4	NA ACTIVE	12 GTV	MAN	O	PI-2Y				Maintenance only
1E22-F039	2 B-9	C ACTIVE	1 CHV	SEV	C	FE-Q		F	VR-30	
1E22-F510/ -F511	2 D-8	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E22-F513/ -F525	2 B-6	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E22-F517/ -F518	2 B-3	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E22-F519/ -F520	2 C-5	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E22-F528/ -F529	2 G-6	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				

PUMP AND VALVE INSERVICE TESTING PROGRAM  
FOR  
PERRY NUCLEAR POWER PLANT  
UNIT NO. 1

SECTION 3.3  
ATTACHMENT 10

VALVE TEST TABLES  
FOR  
MSIV LEAKAGE CONTROL (E32)  
DWG. NO. D-302-341  
D-302-342

## PERRY PLANT UNIT 1

SYSTEM: MSIV LEAKAGE CONTROL (E32)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-341

PAGE 1 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E32-F001A	1 F-7	A ACTIVE	2½ GTV	MOV	C	FE-Q ST-Q LJ-RO PI-2Y	0 12.5 C 12.5		VR-43	
1E32-F001E	1 G-7	A ACTIVE	2½ GTV	MOV	C	FE-Q ST-Q LJ-RO PI-2Y	0 12.5 C 12.5		VR-43	
1E32-F001J	1 H-7	A ACTIVE	2½ GTV	MOV	C	FE-Q ST-Q LJ-RO PI-2Y	0 12.5 C 12.5		VR-43	
1E32-F001N	1 H-7	A ACTIVE	2½ GTV	MOV	C	FE-Q ST-Q LJ-RO PI-2Y	0 12.5 C 12.5		VR-43	
1E32-F002A	2 F-7	B ACTIVE	2½ GTV	MOV	C	FE-Q ST-Q PI-2Y	0 12.5		VR-43	

## PERRY PLANT UNIT 1

SYSTEM: MSIV LEAKAGE CONTROL (E32)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-341

PAGE 2 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E32-F002E	2 G-7	B ACTIVE	2½ GTV	MOV	C	FE-Q ST-Q PI-2Y	0 12.5		VR-43	
1E32-F002J	2 H-7	B ACTIVE	2½ GTV	MOV	C	FE-Q ST-Q PI-2Y	0 12.5		VR-43	
1E32-F002N	2 H-7	B ACTIVE	2½ GTV	MOV	C	FE-Q ST-Q PI-2Y	0 12.5		VR-43	
1E32-F003A	2 F-10	B ACTIVE	2½ GTV	MOV	C	FE-Q ST-Q PI-2Y	0 12.5		VR-43	
1E32-F003E	2 G-10	B ACTIVE	2½ GTV	MOV	C	FE-Q ST-Q PI-2Y	0 12.5		VR-43	
1E32-F003J	2 H-10	B ACTIVE	2½ GTV	MOV	C	FE-Q ST-Q PI-2Y	0 12.5		VR-43	
1E32-F003N	2 H-10	B ACTIVE	2½ GTV	MOV	C	FE-Q ST-Q PI-2Y	0 12.5		VR-43	
1E32-F006	2 E-9	B ACTIVE	2 GTV	MOV	C	FE-Q ST-Q PI-2Y	0 10		VR-43	



SYSTEM: MSIV LEAKAGE CONTROL (E32)

## PERRY PLANT UNIT 1

VALVE TEST TABLE REV. 1

DWG. NO. D-302-341

PAGE 3 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E32-F007	2 F-9	B ACTIVE	2 GTV	MOV	C	FE-Q ST-Q PI-2Y	0 10		VR-43	
1E32-F008	2 E-10	B ACTIVE	2½ GTV	MOV	C	FE-Q ST-Q PI-2Y	0 12.5		VR-43	
1E32-F009	2 E-10	B ACTIVE	2½ GTV	MOV	C	FE-Q ST-Q PI-2Y	0 12.5		VR-43	
1E32-F025A/ -F026A	2 C-5	A PASSIVE	1½ CLV	MAN	LC	LJ-RO				
1E32-F025E/ -F026E	2 C-5	A PASSIVE	1½ GLV	MAN	LC	LJ-RO				
1E32-F025J/ -F026J	2 C-5	A PASSIVE	1½ GLV	MAN	LC	LJ-RO				
1E32-F025N/ -F026N	2 C-5	A PASSIVE	1½ GLV	MAN	LC	LJ-RO				

Rev. 1

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 11

VALVE TEST TABLES

FOR

REACTOR CORE ISOLATION COOLING (E51)

DWG. NO. D-302-631

D-302-632

III-11-1

PERRY PLANT UNIT 1

SYSTEM: REACTOR CORE ISOLATION COOLING (E51)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-631

PAGE 1 OF 7

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	* STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E51-F010	2 G-5	B ACTIVE	6 GTV	MOV	O	FE-Q ST-Q PI-2Y	C 30			
1E51-F011	2 G-4	C ACTIVE	6 CHV	SEV	C	FE-Q		F		Test with pump test.
1E51-F013	1 D-7	A ACTIVE	6 GTV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	0 15 C 15		VR-9	
1E51-F017	2 F-3	C ACTIVE	1 REV	SEV	C	RT-5Y				
1E51-F019	2 E-6	A ACTIVE	2 GLV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	0 5 C 5			
1E51-F021	2 E-6	C ACTIVE	2 CHV	SEV	C	FE-Q		F		Test with pump test.
1E51-F022	2 C-7	B ACTIVE	4 GLV	MOV	C	FE-Q	0 60 C 60			

## PERRY PLANT UNIT 1

SYSTEM: REACTOR CORE ISOLATION COOLING (E51)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-631

PAGE 2 OF 7

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E51-F030	2 H-7	C ACTIVE	6 CHV	SEV	C	FE-Q		F	VR-17	
1E51-F031	2 H-7	A ACTIVE	6 GTV	MOV	C	FE-Q ST-Q LJ-RO PI-2Y	0 30 C 30			
1E51-F034/ -F035	2 D-8	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E51-F040	2 G-5	C ACTIVE	12 CHV	SEV	C	FE-Q		F		Test with pump test. IEB: 83-03
1E51-F059	2 C-7	B ACTIVE	4 GTV	MOV	C	FE-Q ST-Q PI-2Y	0 20 C 20			
1E51-F061	2 F-3	C ACTIVE	1 1/2 CHV	SEV	O	FE-Q		R	VR-31	
1E51-F062	2 F-3	C ACTIVE	1 1/2 SCK	SEV	O	FE-Q		R	VR-31	

PERRY PLANT UNIT 1

SYSTEM: REACTOR CORE ISOLATION COOLING (E51)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-631

PAGE 3 OF 7

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E51-F065	1 D-8	AC ACTIVE	6 CHV	SEV	C	FE-Q LK-R0		F	VR-23	Manually testable check valve.
1E51-F066	1 D-10	AC ACTIVE	6 CHV	SEV HOV	C	FE-Q LC-R0		F	VR-23	Testable check valve.
1E51-F068	2 G-6	A ACTIVE	12 GTV	MOV	O	FE-Q ST-Q LJ-R0 PI-2Y	C 30			
1E51-F077	2 F-6	A ACTIVE	1½ GLV	MOV	O	FE-Q ST-Q LJ-R0 PI-2Y	0 7.5 C 7.5			
1E51-F078	2 E-7	B ACTIVE	2 GLV	MOV	O	FE-Q ST-Q LJ-R0 PI-2Y	0 30 C 30			
1E51-F079	2 E-7	C ACTIVE	1½ CHV	SEV	C	FE-Q		F	VR-34	

## PERRY PLANT UNIT 1

SYSTEM: REACTOR CORE ISOLATION COOLING (E51)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-631

PAGE 4 OF 7

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E51-F081	2 E-7	C ACTIVE	1½ CHV	SEV	C	FE-Q		F	VR-34	
1E51-F082/ -F542	2 F-7	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E51-F083/ -F543	2 F-6	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E51-F090	2 C-7	C ACTIVE	3/4 CHV	SEV	C	FE-Q		F	VR-30	
1E51-F503/ -F504	2 G-7	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E51-F507/ -F508	2 E-8	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E51-F562/ -F563	2 G-7	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				

## PERRY PLANT UNIT 1

SYSTEM: REACTOR CORE ISOLATION COOLING (E51)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-632

PAGE 5 OF 7

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E51-D001	2 F-11	D	8 RUD	SEV	C	RD				Replace upon activation
1E51-D002	2 F-12	D	8 RUD	SEV	C	RD				Replace upon activation
1E51-F004	2 H-9	B ACTIVE	1 DIV	POV	C	FE-Q ST-Q FS-Q PI-2Y	0 5 C 5			
1E51-F005	2 H-9	B ACTIVE	1 DIV	POV	C	FE-Q ST-Q FS-Q PI-2Y	0 5 C 5			
1E51-F018	2 D-6	C ACTIVE	1 REV	SEV	DE	RT-5Y				
1E51-F025	2 E-4	B ACTIVE	1 DIV	POV	C	FE-Q ST-Q FS-Q PI-2Y	0 5 C 5			
1E51-F026	2 F-4	B ACTIVE	1 DIV	POV	C	FE-Q ST-Q FS-Q PI-2Y	0 5 C 5			

## PERRY PLANT UNIT 1

SYSTEM: REACTOR CORE ISOLATION COOLING (E51)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-632

PAGE 6 OF 7

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E51-F045	2 D-5	B ACTIVE	4 GLV	MOV	C	FE-Q ST-Q PI-2Y	0 15 C 15			
1E51-F046	2 C-12	B ACTIVE	2 GLV	MOV	C	FE-Q ST-Q PI-2Y	0 30			
1E51-F047	2 H-8	C ACTIVE	1 CHV	SEV	C	FE-Q		F		
1E51-F063	1 C-5	A ACTIVE	10 GLV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	0 20 C 20			
1E51-F064	1 C-4	A ACTIVE	10 GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	0 10 C 10			
1E51-F072/ -F073	2 C-4	A PASSIVE	3/4 GLV	MAN	LC	LJ-R0				
1E51-F076	1 C-5	A ACTIVE	1 GLV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	0 15 C 15			



PERRY PLANT UNIT 1

SYSTEM: REACTOR CORE ISOLATION COOLING (E51)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-632

PAGE 7 OF 7

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E51-F510	2 D-7	B ACTIVE	4 GTV	MOV	0	FE-Q ST-Q PI-2Y	0 20 C 20			RCIC trip valve
1E51-F511	2 D-9	B ACTIVE	4 GTV	HOV	0	FE-Q ST-Q PI-2Y	C 20		VR-14	RCIC governing valve throttle

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 12

VALVE TEST TABLES

FOR

CONTAINMENT INTEGRATED LEAK RATE TESTING (E61)

DWG. NO. D-302-811

## PERRY PLANT UNIT 1

SYSTEM: CONTAINMENT INTEGRATED LEAK RATE TESTING (E61)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-811

PAGE 1 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E61-D001	2 H-6	-	FLANGE	-	-	LJ-R0				Replace upon failure.
1E61-D003	2 F-5	-	FLANGE	-	-	LJ-R0				Replace upon failure.
1E61-D004	2 C-11	-	FLANGE	-	-	LJ-R0				Replace upon failure.
1E61-D005	2 C-11	-	FLANGE	-	-	LJ-R0				Replace upon failure.
1E61-D007	2 C-11	-	FLANGE	-	-	LJ-R0				Replace upon failure.

## PERRY PLANT UNIT 1

SYSTEM: CONTAINMENT INTEGRATED LEAK RATE TESTING (E61)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-811

PAGE 2 OF 3

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E61-D014	2 F-6	-	FLANGE	-	-	LJ-RO				Replace upon failure.
1E61-D015	2 G-6	-	FLANGE	-	-	LJ-RO				Replace upon failure.
1E61-D016	2 G-7	-	FLANGE	-	-	LJ-RO				Replace upon failure.
1E61-D017	2 F-6	-	FLANGE	-	-	LJ-RO				Replace upon failure.
1E61-F504	2 D-7	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E61-F505	2 F-5	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E61-F514	2 G-6	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E61-F517	2 D-10	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				

## PERRY PLANT UNIT 1

SYSTEM: CONTAINMENT INTEGRATED LEAK RATE TESTING (E61)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-811

PAGE 3 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1E61-F520	2 D-10	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E61-F523	2 E-11	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E61-F525	2 D-11	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E61-F549	2 D-11	A PASSIVE	$\frac{1}{2}$ GLV	MAN	LC	LJ-RO				
1E61-F550	2 D-11	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E61-F551	2 D-11	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1E61-F552	2 D-11	A PASSIVE	$\frac{1}{2}$ GLV	MAN	LC	LJ-RO				

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 13

VALVE TEST TABLES

FOR

REACTOR WATER CLEANUP (G33)

DWG. NO. D-302-671

D-302-672

SYSTEM: REACTOR WATER CLEANUP (G33)

PERRY PLANT UNIT 1

VALVE TEST TABLE REV. 1

DWG. NO. D-302-671  
D-302-672

PAGE 1 OF 2

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1G33-F001	1 H-9	A ACTIVE	6 GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 15		VR-40	
1G33-F004	1 H-8	A ACTIVE	6 GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 15		VR-40	
1G33-F028	2 D-9	A ACTIVE	4 GTV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	0 15 C 15			
1G33-F034	2 D-8	A ACTIVE	4 GTV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	0 15 C 15			
1G33-F039	2 D-8	A ACTIVE	6 GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 15			
1G33-F040	2 D-9	A ACTIVE	6 GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 15			

## PERRY PLANT UNIT 1

SYSTEM: REACTOR WATER CLEANUP (G33)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-671  
D-302-672

PAGE 2 OF 2

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1G33-F052A	2 D-4	C ACTIVE	6 CHV	SEV	0	FE-Q		R	VR-37	IEB: 83-03
1G33-F052B	2 D-4	C ACTIVE	6 CHV	SEV	0	FE-Q		R	VR-37	IEB: 83-03
1G33-F053	2 F-9	A ACTIVE	4 GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 15		VR-40	
1G33-F054	2 F-8	A ACTIVE	4 GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 15		VR-40	
1G33-F101	1	B ACTIVE	3 GTV	MOV	C	FE-Q ST-Q	0 15			
1G33-F102	1	B ACTIVE	4 GTV	MOV	0	FE-Q ST-Q	C 15			



PUMP AND VALVE INSERVICE TESTING PROGRAM  
FOR  
PERRY NUCLEAR POWER PLANT  
UNIT NO. 1

SECTION 3.3  
ATTACHMENT 14

VALVE TEST TABLES  
FOR  
FUEL POOL COOLING AND CLEANUP (G41)  
DWG. NO. D-302-651  
D-302-654  
D-302-655

## PERRY PLANT UNIT 1

SYSTEM: FUEL POOL COOLING AND CLEANUP (G41)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-651

PAGE 1 OF 4

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1G41-F090	3 J-13	B ACTIVE	9 BFV	MOV	0	FE-Q ST-Q PI-2Y	C 30			
1G41-F100	2 C-14	A ACTIVE	8 BFV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 30			
1G41-F140	2 C-11	A ACTIVE	10 BFV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 30			
1G41-F145	2 C-13	A ACTIVE	10 BFV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 30			
1G41-F280	3 C-4	B ACTIVE	12 BFV	MOV	0	FE-Q ST-Q PI-R0	C 30-60			Actual closing times will be listed pending ISI stroke time test results.
1G41-F285	3 C-5	B ACTIVE	12 BFV	MOV	0	FE-Q ST-Q PI-R0	C 30-60			Actual closing times will be listed pending ISI stroke time test results.
G41-F290	3 C-10	B ACTIVE	12 BFV	MOV	0	FE-Q ST-Q PI-R0	C 30-60			Actual closing times will be listed pending ISI stroke time test results.

## PERRY PLANT UNIT 1

SYSTEM: FUEL POOL COOLING AND CLEANUP (G41)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-651

PAGE 2 OF 4

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM. POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
G41-F295	3 C-11	B ACTIVE	12 BFV	MOV	0	FE-Q ST-Q PI-RO	C 30-60			Actual closing times will be listed pending ISI stroke time test results.
1G41-F522	2 F-13	AC ACTIVE	8 CHV	SEV	0	FE-Q LJ-RO		R	VR-28	
1G41-F528	2 F-13	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				

## PERRY PLANT UNIT 1

SYSTEM: FUEL POOL COOLING AND CLEANUP (G41)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-654

PAGE 3 OF 4

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1G41-F545A	3 G-11	C ACTIVE	10 CHV	SEV	C	FE-Q		F		
1G41-F545B	3 J-11	C ACTIVE	10 CHV	SEV	C	FE-Q		F		
1G41-F548A	3 G-5	C ACTIVE	3/4 REV	SEV	DE	RT-5Y				
1G41-F548A	3 H-5	C ACTIVE	3/4 REV	SEV	DE	RT-5Y				

## PERRY PLANT UNIT 1

SYSTEM: FUEL POOL COOLING AND CLEANUP (G41)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-655

PAGE 4 OF 4

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1G41-F597A	3 D-10	C ACTIVE	3 CHV	SEV	C	FE-Q		F		
1G41-F597B	3 D-12	C ACTIVE	3 CHV	SEV	C	FE-Q		F		

PUMP AND VALVE INSERVICE TESTING PROGRAM  
FOR  
PERRY NUCLEAR POWER PLANT  
UNIT NO. 1

SECTION 3.3  
ATTACHMENT 15

VALVE TEST TABLES  
FOR  
SUPPRESSION POOL CLEANUP (G42)  
DWG. NO. D-302-681

## PERRY PLANT UNIT 1

SYSTEM: SUPPRESSION POOL CLEANUP (G42)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-681

PAGE 1 OF 1

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1G42-F010	2 H-4	B ACTIVE	12 BFV	MOV	C	FE-Q ST-Q PI-2Y	0 30-60 C 30-60			Actual closing times will be listed pending ISI stroke time test results.
1G42-F020	2 H-5	B ACTIVE	12 BFV	MOV	C	FE-Q ST-Q PI-2Y	0 30-60 C 30-60			Actual closing times will be listed pending ISI stroke time test results.
1G42-F060	3 H-7	B ACTIVE	10 BFV	MOV	C	FE-Q ST-Q PI-2Y	0 30-60 C 30-60			Actual closing times will be listed pending ISI stroke time test results.
1G42-F080	3 F-11	B ACTIVE	8 BFV	MOV	C	FE-Q ST-Q PI-2Y	0 30-60 C 30-60			Actual closing times will be listed pending ISI stroke time test results.

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 16

VALVE TEST TABLES

FOR

SUPPRESSION POOL MAKEUP (G43)

DWG. NO. D-302-686



## PERRY PLANT UNIT 1

SYSTEM: SUPPRESSION POOL MAKEUP (G43)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-686

PAGE 1 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1G43-F030A	2 E-9	B ACTIVE	24 BFV	MOV	C	FE-Q ST-Q PI-2Y	0 30			
1G43-F030B	2 C-9	B ACTIVE	24 BFV	MOV	C	FE-Q ST-Q PI-2Y	0 30			
1G43-F040A	2 F-9	B ACTIVE	24 BFV	MOV	C	FE-Q ST-Q PI-2Y	0 30			
1G43-F040B	2 C-7	B ACTIVE	24 BFV	MOV	C	FE-Q ST-Q PI-2Y	0 30			
1G43-F050A	2 H-8	A ACTIVE	3/4 GLV	SOV	0	FE-Q ST-Q FS-Q LK-RO PI-2Y	C 3		VR-4 VR-2	
1G43-F050B	2 H-13	A ACTIVE	3/4 GLV	SOV	0	FE-Q ST-Q FS-Q LK-RO PI-2Y	C 3		VR-4 VR-2	
1G43-F060	2 H-5	A ACTIVE	3/4 GLV	SOV	0	FE-Q ST-Q FS-Q LK-RO PI-2Y	C 3		VR-4 VR-2	
1G43-F504A	2 H-8	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				

## PERRY PLANT UNIT 1

SYSTEM: SUPPRESSION POOL MAKEUP (G43)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-686

PAGE 2 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1G43-F504B	2 H-12	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1G43-F505	2 H-5	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1G43-F506A	2 J-8	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1G43-F506B	2 J-13	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1G43-F507	2 J-5	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1G43-F508A	2 F-9	C ACTIVE	2 CHV	SEV	C	FE-Q		F	VR-30	
1G43-F508B	2 C-9	C ACTIVE	2 CHV	SEV	C	FE-Q		F	VR-30	
1G43-F510	2 H-8	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1G43-F511	2 J-8	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				

## PERRY PLANT UNIT 1

SYSTEM: SUPPRESSION POOL MAKEUP (G43)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-686

PAGE 3 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1G43-F512	2 H-12	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1G43-F513	2 J-13	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1G43-F514	2 H-5	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1G43-F515	2 J-5	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 17

VALVE TEST TABLES

FOR

LIQUID RADWASTE (G50)

DWG. NO. D-302-737

SYSTEM: LIQUID RADWASTE (G50)

PERRY PLANT UNIT 1

VALVE TEST TABLE REV. 1

DWG. NO. D-302-737

PAGE 1 OF 1

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1G50-F272	2 E-11	A ACTIVE	4 GTV	MOV	0	FE-Q ST-Q LJ-RO PI-2Y	C 20			
1G50-F277	2 E-11	A ACTIVE	4 GTV	MOV	0	FE-Q ST-Q LJ-RO PI-2Y	C 20			

Rev. 1

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 18

VALVE TEST TABLES

FOR

LIQUID RADWASTE SUMPS (G61)

DWG. NO. D-302-739

D-302-740

SYSTEM: LIQUID RADWASTE SUMPS (G61)

PERRY PLANT UNIT 1

VALVE TEST TABLE REV. 1

DWG. NO. D-302-739

PAGE 1 OF 2

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1G61-F030	2 A-9	B ACTIVE	2½ GTV	MOV	0	FE-Q ST-Q PI-2Y	C 22			
1G61-F035	2 A-8	B ACTIVE	2½ GTV	MOV	0	FE-Q ST-Q PI-2Y	C 22			
1G61-F075	2 C-6	A ACTIVE	3 GTV	MOV	0	FE-Q ST-Q LJ-RO PI-2Y	C 15			
1G61-F080	2 C-5	A ACTIVE	3 GTV	MOV	0	FE-Q ST-Q LJ-RO PI-2Y	C 15			
1G61-F633	2 C-6	A PASSIVE	3/4 GLV	MAN	C	LJ-RO				

## PERRY PLANT UNIT 1

SYSTEM: LIQUID RADWASTE SUMPS (G61)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-740

PAGE 2 OF 2

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1G61-F150	2 A-9	B ACTIVE	2½ GTV	MOV	0	FE-Q ST-Q PI-2Y	C 22			
1G61-F155	2 A-9	B ACTIVE	2½ GTV	MOV	0	FE-Q ST-Q PI-2Y	C 22			
1G61-F165	2 A-7	A ACTIVE	3 GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 15			
1G61-F170	2 A-6	A ACTIVE	3 GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 15			
1G61-F634	2 A-7	A PASSIVE	3/4 GLV	MAN	C	LJ-R0				



PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 19

VALVE TEST TABLES

FOR

CONTAINMENT VESSEL AND DRYWELL PURGE (M14)

DWG. NO. D-912-604

## PERRY PLANT UNIT 1

SYSTEM: CONTAINMENT VESSEL AND DRYWELL PURGE (M14)

VALVE TEST TABLE REV. 1

DWG. NO. D-912-604

PAGE 1 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1M14-F040	2 C-8	A ACTIVE	42 BFV	POV	O	FE-Q ST-Q FS-Q LJ-RO PI-2Y	C 4			
1M14-F045	2 C-9	A ACTIVE	42 BFV	POV	C	FE-Q ST-Q FS-Q LJ-RO PI-2Y	O 4 C 4		VR-44	
1M14-F055A	2 H-11	B ACTIVE	24 BFV	POV	C	FE-Q ST-Q FS-Q PI-2Y	O 4 C 4		VR-45	
1M14-F055B	2 H-13	B ACTIVE	24 BFV	POV	C	FE-Q ST-Q FS-Q PI-2Y	O 4 C 4		VR-45	
1M14-F060A	2 J-11	B ACTIVE	24 BFV	POV	C	FE-Q ST-Q FS-Q PI-2Y	O 4 C 4		VR-45	
1M14-F060B	2 J-13	B ACTIVE	24 BFV	POV	C	FE-Q ST-Q FS-Q PI-2Y	O 4 C 4		VR-45	

## PERRY PLANT UNIT 1

SYSTEM: CONTAINMENT VESSEL AND DRYWELL PURGE (M14)

VALVE TEST TABLE REV. 1

DWG. NO. D-912-604

PAGE 2 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1M14-F065	2 F-13	B ACTIVE	36 BFV	POV	C	FE-Q ST-Q FS-Q PI-2Y	0 4 C 4		VR-44	
1M14-F070	2 F-11	B ACTIVE	36 BFV	POV	C	FE-Q ST-Q FS-Q PI-2Y	0 4 C 4		VR-44	
1M14-F085	2 F-9	A ACTIVE	42 BFV	POV	C	FE-Q ST-Q FS-Q LJ-R0 PI-2Y	0 4 C 4		VR-44	
1M14-F090	2 G-8	A ACTIVE	42 BFV	POV	O	FE-Q ST-Q FS-Q LJ-R0 PI-2Y	C 4			
1M14-F190	2 C-9	A ACTIVE	18 BFV	POV	O	FE-Q ST-Q FS-Q LJ-R0 PI-2Y	C 4			
1M14-F195	2 C-10	A ACTIVE	18 BFV	POV	O	FE-Q ST-Q FS-Q LJ-R0 PI-2Y	C 4			

## PERRY PLANT UNIT 1

SYSTEM: CONTAINMENT VESSEL AND DRYWELL PURGE (M14)

VALVE TEST TABLE REV. 1

DWG. NO. D-912-604

PAGE 3 OF 3

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1M14-F200	2 E-9	A ACTIVE	18 BFV	POV	O	FE-Q ST-Q FS-Q LJ-RO PI-2Y	C 4			
1M14-F205	2 E-10	B ACTIVE	18 BFV	POV	O	FE-Q ST-Q FS-Q LJ-RO PI-2Y	C 4			
1M14-F602	2 G-8	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1M14-F603	2 C-8	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1M14-F609	2 C-9	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1M14-F610	2 E-9	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 20

VALVE TEST TABLES

FOR

DRYWELL (M16) AND CONTAINMENT VACUUM RELIEF (M17)

DWG. NO. D-912-606

PERRY PLANT UNIT 1

SYSTEM: DRYWELL (M16) AND CONTAINMENT VACUUM RELIEF (M17)

VALVE TEST TABLE REV. 1

DWG. NO. D-912-606

PAGE 1 OF 2

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1M16-F010A	2 H-9	B ACTIVE	10 BFV	MOV	C	FE-Q ST-Q PI-2Y	0 5 C 5			
1M16-F010B	2 H-5	B ACTIVE	10 BFV	MOV	C	FE-Q ST-Q	0 5 C 5			
1M16-F020A	2 H-9	C ACTIVE	10 CHV	SEV POV	C	FE-Q PI-2Y		F		Testable check valve.
1M16-F020B	2 H-4	C ACTIVE	10 CHV	SEV POV	C	FE-Q PI-2Y		F		Testable check valve.
1M17-F010	1 B-13	AC ACTIVE	24 CHV	SEV POV	C	FE-Q LJ-R0 PI-2Y		F		Testable check valve.
1M17-F015	2 B-12	A ACTIVE	24 BFV	MOV	O	FE-Q ST-Q LJ-R0 PI-2Y	C 5			
1M17-F020	2 D-13	AC ACTIVE	24 CHV	SEV POV	C	FE-Q LJ-R0 PI-2Y		F		Testable check valve.
1M17-F025	2 D-12	A ACTIVE	24 BFV	MOV	O	FE-Q ST-Q LJ-R0 PI-2Y	C 5			

## PERRY PLANT UNIT 1

SYSTEM: CONTAINMENT VACUUM RELIEF (M17)

VALVE TEST TABLE REV. 1

DWG. NO. D-912-606

PAGE 2 OF 2

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1M17-F030	2 G-13	AC ACTIVE	24 CHV	SEV POV	C	FE-Q LJ-R0 PI-27		F		Testable check valve.
1M17-F035	2 G-12	A ACTIVE	24 BFV	MOV	O	FE-Q ST-Q LJ-R0 PI-2Y	C 5			
1M17-F040	2 J-13	AC ACTIVE	24 CHV	SEV POV	C	FE-Q LJ-R0 PI-2Y		F		Testable check valve.
1M17-F045	2 J-12	A ACTIVE	24 BFV	MOV	O	FE-Q ST-Q LJ-R0 PI-2Y	C 5			
1M17-F055	2 D-8	A ACTIVE	3/4 GLV	SOV	O	FE-Q ST-Q FS-Q LK-R0 PI-2Y	C 3		VR-4 VR-2	
1M17-F065	2 D-4	A ACTIVE	3/4 GLV	SOV	O	FE-Q ST-Q FS-Q LK-R0 PI-2Y	C 3		VR-4 VR-2	

PUMP AND VALVE INSERVICE TESTING PROGRAM  
FOR  
PERRY NUCLEAR POWER PLANT  
UNIT NO. 1

SECTION 3.3  
ATTACHMENT 21

VALVE TEST TABLES  
FOR  
COMBUSTIBLE GAS CONTROL (M51)  
DWG. NO. D-302-831  
D-302-832



## PERRY PLANT UNIT 1

SYSTEM: COMBUSTABLE GAS CONTROL (M51)

VALVE TEST TABLE REV. 1

DWG. NO. D-912-831

PAGE 1 OF 4

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1M51-F010A	2 B-12	B ACTIVE	4 GLV	MOV	C	FE-Q ST-Q PI-2Y	0 37 C 37			
1M51-F010B	2 F-12	B ACTIVE	4 GLV	MOV	C	FE-Q ST-Q PI-2Y	0 37 C 37			
1M51-F020A	2 A-9	B ACTIVE	2 GLV	MOV	C	FE-Q ST-Q PI-2Y	0 30			
1M51-F020B	2 E-9	B ACTIVE	2 GLV	MOV	C	FE-Q ST-Q PI-2Y	0 30			
1M51-F090	2 J-8	A ACTIVE	2 GLV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	0 30 C 30			
1M51-F110	2 J-6	A ACTIVE	2 GLV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	0 30 C 30			
1M51-F501A	2 B-11	C ACTIVE	4 CHV	SEV	C	FE-Q		F		
1M51-F501B	2 F-11	C ACTIVE	4 CHV	SEV	C	FE-Q		F		

## PERRY PLANT UNIT 1

SYSTEM: COMBUSTABLE GAS CONTROL (M51)

VALVE TEST TABLE REV. 1

DWG. NO. D-912-832

PAGE 2 OF 4

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1M51-F210A	2 E-4	B ACTIVE	$\frac{3}{4}$ GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y LJ-R0	0 3 C 3		VR-4 VR-2	
1M51-F210B	2 E-11	B ACTIVE	$\frac{3}{4}$ GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y LJ-R0	0 3 C 3		VR-4 VR-2	
1M51-F220A	2 F-4	B ACTIVE	$\frac{3}{4}$ GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y LJ-R0	0 3 C 3		VR-4 VR-2	
1M51-F220B	2 F-11	B ACTIVE	$\frac{3}{4}$ GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y LJ-R0	0 3 C 3		VR-4 VR-2	
1M51-F230A	2 F-4	B ACTIVE	$\frac{3}{4}$ GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y LJ-R0	0 3 C 3		VR-4 VR-2	
1M51-F230B	2 F-11	B ACTIVE	$\frac{3}{4}$ GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y LJ-R0	0 3 C 3		VR-4 VR-2	

## PERRY PLANT UNIT 1

SYSTEM: COMBUSTABLE GAS CONTROL (M51)

VALVE TEST TABLE REV. 1

DWG. NO. D-912-832

PAGE 3 OF 4

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1M51-F240A	2 G-4	B ACTIVE	$\frac{1}{2}$ GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y LJ-R0	0 3 C 3		VR-4 VR-2	
1M51-F240B	2 G-11	B ACTIVE	$\frac{1}{2}$ GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y LJ-R0	0 3 C 3		VR-4 VR-2	
1M51-F250A	2 G-5	B ACTIVE	$\frac{1}{2}$ GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y LJ-R0	0 3 C 3		VR-4 VR-2	
1M51-F250B	2 G-11	B ACTIVE	$\frac{1}{2}$ GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y LJ-R0	0 3 C 3		VR-4 VR-2	
1M51-F260A	2 D-3	B ACTIVE	$\frac{3}{4}$ GLV	SOV	O	FE-Q ST-Q FS-Q PI-2Y	0 3 C 3		VR-4 VR-2	
1M51-F260B	2 E-13	B ACTIVE	$\frac{3}{4}$ GLV	SOV	O	FE-Q ST-Q FS-Q PI-2Y	0 3 C 3		VR-4 VR-2	

PERRY PLANT UNIT 1

SYSTEM: COMBUSTABLE GAS CONTROL (M51)

VALVE TEST TABLE REV. 1

DWG. NO. D-912-832

PAGE 4 OF 4

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1M51-F270A	2 C-3	B ACTIVE	3/4 GLV	SOV	0	FE-Q ST-Q FS-Q PI-2Y	0 3 0 3		VR-4 VR-2	
1M51-F270B	2 D-13	B ACTIVE	3/4 GLV	SOV	0	FE-Q ST-Q FS-Q PI-2Y	0 3 0		VR-4 VR-2	

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 22

VALVE TEST TABLES

FOR

MAIN STEAM (N11)

DWG. NO. D-302-011

## PERRY PLANT UNIT 1

SYSTEM: MAIN STEAM (N11)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-011

PAGE 1 OF 1

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1N11-F020A	2 D-13	B ACTIVE	28 GTV	MOV	0	FE-Q ST-Q PI-2Y	C 140		VR-7	
1N11-F020B	2 G-13	B ACTIVE	28 GTV	MOV	0	FE-Q ST-Q PI-2Y	C 140		VR-7	
1N11-F020C	2 C-13	B ACTIVE	28 GTV	MOV	0	FE-Q ST-Q PI-2Y	C 140		VR-7	
1N11-F020D	2 F-13	B ACTIVE	28 GTV	MOV	0	FE-Q ST-Q PI-2Y	C 140		VR-7	

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 23

VALVE TEST TABLES

FOR

MAIN, REHEAT, EXTRACTION, & MISC. DRAINS (N22)

DWG. NO. D-302-082

D-302-121

## PERRY PLANT UNIT 1

SYSTEM: MAIN, REHEAT, EXTRACTION, AND  
MISC. DRAINS (N22)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-121

PAGE 1 OF 1

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1N22-F420A	2 C-5	B ACTIVE	1½ GLV	POV	C	FE-Q ST-Q PI-2Y	0 22.5 C 22.5			
1N22-F420B	2 C-4	B ACTIVE	1½ GLV	POV	C	FE-Q ST-Q PI-2Y	0 22.5 C 22.5			
1N22-F420C	2 C-5	B ACTIVE	1½ GLV	POV	C	FE-Q ST-Q PI-2Y	0 22.5 C 22.5			
1N22-F420D	2 C-5	B ACTIVE	1½ GLV	POV	C	FE-Q ST-Q PI-2Y	0 22.5 C 22.5			



PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 24

VALVE TEST TABLES

FOR

FEEDWATER LEAKAGE CONTROL (N27)

DWG. NO. D-302-082

D-302-971

## PERRY PLANT UNIT 1

SYSTEM: FEEDWATER (N27)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-082

PAGE 1 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1B21-F032A	1 B-8	AC ACTIVE	20 CHV	SEV	0	FE-Q LJ-R0		R	VR-28	
1B21-F032B	1 C-7	AC ACTIVE	20 CHV	SEV	0	FE-Q LJ-R0		R	VR-28	
1B21-F065A	2 B-12	A ACTIVE	20 GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 100		VR-5	
1B21-F065B	2 C-11	A ACTIVE	20 GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 100		VR-5	
1N27-F555A	1 B-5	A PASSIVE	3/4 GLV	MAN	LC	LJ-R0				
1N27-F555B	1 D-6	A PASSIVE	3/4 GLV	MAN	LC	LJ-R0				
1N27-F556A	1 B-5	A PASSIVE	3/4 GLV	MAN	LC	LJ-R0				
1N27-F556B	1 D-6	A PASSIVE	3/4 GLV	MAN	LC	LJ-R0				

## PERRY PLANT UNIT 1

SYSTEM: FEEDWATER (N27)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-082

PAGE 2 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM. POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1N27-F559A	1 B-5	AC ACTIVE	20 CHV	SEV	0	FE-Q LJ-RO		R	VR-28	
1N27-F559B	1 C-5	AC ACTIVE	20 CHV	SEV	0	FE-Q LJ-RO		R	VR-28	

## PERRY PLANT UNIT 1

SYSTEM: FEEDWATER LEAKAGE CONTROL (N27)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-971

PAGE 3 OF 3

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1N27-F737	2 C-11	A ACTIVE	1½ GLV	MOV	C	FE-Q ST-Q LK-RO PI-2Y	0 22.5		VR-8	
1N27-F739A	2 D-7	AC ACTIVE	1 CHV	SEV	C	FE-Q LK-RO		F	VR-19	
1N27-F739B	2 C-7	AC ACTIVE	1 CHV	SEV	C	FE-Q LK-RO		F	VR-19	
1N27-F740	2 G-11	A ACTIVE	1½ GLV	MOV	C	FE-Q ST-Q LK-RO PI-2Y	0 22.5		VR-8	
1N27-F742A	2 H-7	AC ACTIVE	1 CHV	SEV	C	FE-Q LK-RO		F	VR-19	
1N27-F742B	2 G-7	AC ACTIVE	1 CHV	SEV	C	FE-Q LK-RO		F	VR-19	
1N27-F751	2 E-5	A PASSIVE	1 GLV	MAN	LC	LJ-RO				
1N27-F793	2 E-6	A ACTIVE	¾ GLV	MAN	LC	LJ-RO				

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 25

VALVE TEST TABLES

FOR

CONDENSATE TRANSFER AND STORAGE (P11)

DWG. NO. D-302-102

## PERRY PLANT UNIT 1

SYSTEM: CONDENSATE TRANSFER &amp; STORAGE (P11)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-102

PAGE 1 OF 1

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P11-F060	2 D-10	A ACTIVE	12 BFV	MOV	O	FE-Q ST-Q LJ-R0 PI-2Y	C 30			
1P11-F080	2 B-4	A ACTIVE	10 BFV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	O 30 C 30			
1P11-F090	2 B-5	A ACTIVE	10 BFV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	O 30 C 30			
1P11-F539	2 D-10	A PASSIVE	3/4 GLV	MAN	LC	LJ-R0				
1P11-F545	2 D-11	AC ACTIVE	12 CHV	SEV	C	LJ-R0				Maintenance only

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY/ NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 26

VALVE TEST TABLES

FOR

MIXED BED DEMIN. AND DISTRIBUTION (P22)

DWG. NO. D-302-713

## PERRY PLANT UNIT 1

SYSTEM: MIXED BED DEMIN &amp; DISTRIBUTION (P22)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-713

PAGE 1 OF 1

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P22-F010	2 F-11	A ACTIVE	3 GTV	MOV	0	FE-Q ST-Q LJ-RO PI-2Y	C 22.0			
1P22-F015	2 H-12	B ACTIVE	1½ GLV	MOV	0	FE-Q ST-Q PI-2Y	C 18.8			
1P22-F576	2 F-11	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1P22-F577	2 G-11	AC ACTIVE	3 CHV	SEV	0	FE-Q LJ-RO		R	VR-28	
1P22-F593	2 H-12	C ACTIVE	1½ CHV	SEV	0	FE-Q		R	VR-29	



Rev. 1

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 27

VALVE TEST TABLES

FOR

EMERGENCY CLOSED COOLING WATER (P42)

DWG. NO. D-302-621

D-302-622

III-27-1

SYSTEM: EMERGENCY CLOSED COOLING WATER (P42)

## PERRY PLANT UNIT 1

VALVE TEST TABLE REV. 1

DWG. NO. D-302-621

PAGE 1 OF 3

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P42-F150A	3 D-8	B ACTIVE	10 BFV	MOV	0	FE-Q ST-Q PI-2Y	C			Stroke time not available. Will be added when determined.
1P42-F150B	3 J-8	B ACTIVE	10 BFV	MOV	0	FE-Q ST-Q PI-2Y	C			Stroke time not available. Will be added when determined.
1P42-F290	3 E-7	B ACTIVE	10 BFV	MOV	0	FE-Q ST-Q PI-2Y	C			Stroke time not available. Will be added when determined.
1P42-F295A	3 C-7	B ACTIVE	10 BFV	MOV	0	FE-Q ST-Q PI-2Y	C			Stroke time not available. Will be added when determined.
1P42-F295B	3 G-7	B ACTIVE	10 BFV	MOV	0	FE-Q ST-Q PI-2Y	C			Stroke time not available. Will be added when determined.
1P42-F300A	3 B-7	B ACTIVE	10 BFV	MOV	C	FE-Q ST-Q PI-2Y	0			Stroke time not available. Will be added when determined.
1P42-F300B	3 H-7	B ACTIVE	10 BFV	MOV	C	FE-Q ST-Q PI-2Y	0			Stroke time not available. Will be added when determined.
1P42-F320	3 E-3	B ACTIVE	10 BFV	MOV	0	FE-Q ST-Q PI-2Y	C			Stroke time not available. Will be added when determined.

SYSTEM: EMERGENCY CLOSED COOLING WATER (P42)

PERRY PLANT UNIT 1

VALVE TEST TABLE REV. 1

DWG. NO. D-302-621

PAGE 2 OF 3

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P42-F325A	3 D-3	B ACTIVE	10 BFV	MOV	O	FE-Q ST-Q PI-2Y	C			Stroke time not available. Will be added when determined.
1P42-F325B	3 G-3	B ACTIVE	10 BFV	MOV	O	FE-Q ST-Q PI-2Y	C			Stroke time not available. Will be added when determined.
1P42-F330A	3 B-3	B ACTIVE	10 BFV	MOV	C	FE-Q ST-Q PI-2Y	O			Stroke time not available. Will be added when determined.
1P42-F330B	3 J-3	B ACTIVE	10 BFV	MOV	C	FE-Q ST-Q PI-2Y	O			Stroke time not available. Will be added when determined.
1P42-F519A	3 E-11	C ACTIVE	12 CHV	SEV	C	FE-Q		F		Test with pump test.
1P42-F519B	3 G-11	C ACTIVE	12 CHV	SEV	C	FE-Q		F		Test with pump test.

## PERRY PLANT UNIT 1

SYSTEM: EMERGENCY CLOSED COOLING WATER (P42)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-622

PAGE 3 OF 3

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P42-F540	3 C-3	C ACTIVE	3/4 REV	SEV	C	RT-5Y				
1P42-F566A	3 D-6	C ACTIVE	3/4 REV	SEV	C	RT-5Y				
1P42-F566B	3 H-11	C ACTIVE	3/4 REV	SEV	C	RT-5Y				
1P42-F566C	3 H-6	C ACTIVE	3/4 REV	SEV	C	RT-5Y				
1P42-F570	3 C-11	C ACTIVE	3/4 REV	SEV	C	RT-5Y				

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 28

VALVE TEST TABLES

FOR

NUCLEAR CLOSED COOLING (P43)

DWG. NO. D-302-613

## PERRY PLANT UNIT 1

SYSTEM: NUCLEAR CLOSED COOLING (P43)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-613

PAGE 1 OF 2

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P43-F055	2 J-13	A ACTIVE	12 BFV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 30		VR-13	
1P43-F140	2 J-3	A ACTIVE	12 BFV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 30		VR-13	
1P43-F215	2 J-4	A ACTIVE	12 BFV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 30		VR-13	
1P43-F355	2 J-11	B ACTIVE	10 BFV	MOV	0	FE-Q ST-Q PI-2Y	C 10		VR-13	
1P43-F400	2 J-7	B ACTIVE	10 BFV	MOV	0	FE-Q ST-Q PI-2Y	C 10		VR-13	
1P43-F410	2 J-6	B ACTIVE	10 BFV	MOV	0	FE-Q ST-Q PI-2Y	C 10		VR-13	
1P43-F693	2 J-4	A PASSIVE	3/4 GLV	MAN	LC	LJ-R0				
1P43-F721	2 J-12	AC ACTIVE	12 CHV	SEV	0	FE-Q LJ-R0		R	VR-28	

PERRY PLANT UNIT 1

SYSTEM: NUCLEAR CLOSED COOLING (P43)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-613

PAGE 2 OF 2

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P43-F722	2 J-10	C ACTIVE	10 CHV	SEV	0	FE-Q		R	VR-29	

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 29

VALVE TEST TABLES

FOR

EMERGENCY SERVICE WATER (P45)

DWG. NO. D-302-791

D-302-792



## PERRY PLANT UNIT 1

SYSTEM: EMERGENCY SERVICE WATER (P45)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-791  
D-302-792

PAGE 1 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P45-F014A	3 D-6	B ACTIVE	20 BFV	MOV	0	FE-Q ST-Q PI-2Y	C 30-60 0 30-60			
1P45-F014B	3 E-6	B ACTIVE	20 BFV	MOV	0	FE-Q ST-Q PI-2Y	C 30-60 0 30-60			
1P45-F068A	3 C-4	B ACTIVE	20 BFV	MOV	0	FE-Q ST-Q PI-2Y	C 30-60 0 30-60			
1P45-F068B	3 G-4	B ACTIVE	20 BFV	MOV	0	FE-Q ST-Q PI-2Y	C 30-60 0 30-60			
1P45-F130A	3 E-13	B ACTIVE	24 BFV	MOV	0	FE-Q ST-Q PI-2Y	C 30-60 0 30-60			
1P45-F130B	3 E-12	B ACTIVE	24 BFV	MOV	0	FE-Q ST-Q PI-2Y	C 30-60 0 30-60			
1P45-F140	3 E-11	B ACTIVE	8 BFV	MOV	0	FE-Q ST-Q PI-2Y	C 30-60 0 30-60			
1P45-F501A	3 G-13	C ACTIVE	24 CHV	SEV	C	FE-Q		F		IEB: 83-03

## PERRY PLANT UNIT 1

SYSTEM: EMERGENCY SERVICE WATER (P45)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-791  
D-302-792

PAGE 2 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P45-F501B	3 G-12	C ACTIVE	24 CHV	SEV	C	FE-Q		F		IEB: 83-03
1P45-F502A	2 G-13	C ACTIVE	2 CHV	SEV	O	FE-Q		R		
1P45-F502B	2 G-12	C ACTIVE	2 CHV	SEV	O	FE-Q		R		
1P45-F506	2 G-11	C ACTIVE	2 CHV	SEV	O	FE-Q		R		
1P45-F517	2 C-8	C ACTIVE	1 REV	SEV	DE	RT-5Y				
1P45-F520	2 F-6	C ACTIVE	3/4 REV	SEV	DE	RT-5Y				
1P45-F531A	3 B-10	C ACTIVE	3/4 REV	SEV	DE	RT-5Y				
1P45-F531B	3 G-10	C ACTIVE	3/4 REV	SEV	DE	RT-5Y				
1P45-F537A	3 D-8	C ACTIVE	3/4 REV	SEV	DE	RT-5Y				
1P45-F537B	3 F-8	C ACTIVE	3/4 REV	SEV	DE	RT-5Y				

PERRY PLANT UNIT 1

SYSTEM: EMERGENCY SERVICE WATER (P45)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-791  
D-302-792

PAGE 3 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P45-F543A	3 E-6	C ACTIVE	3/4 REV	SEV	DE	RT-5Y				
1P45-F543B	3 E-6	C ACTIVE	3/4 REV	SEV	DE	RT-5Y				
1P45-F552	3 G-11	C ACTIVE	8 CHV	SEV	C	FE-Q		F		IEB: 83-03
1P45-F571A	3 B-5	C ACTIVE	1 1/2 REV	SEV	DE	RT-5Y				
1P45-F571B	3 H-5	C ACTIVE	1 1/2 REV	SEV	DE	RT-5Y				
1P45-F575	2 E-7	C ACTIVE	18 CHV	SEV	C	FE-Q		F	VR-21	

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 30

VALVE TEST TABLES

FOR

CONTROL COMPLEX CHILLED WATER (P47)

DWG. NO. D-913-001

D-913-002

## PERRY PLANT UNIT 1

SYSTEM: CONTROL COMPLEX CHILLED WATER (P47)

VALVE TEST TABLE REV. 1

DWG. NO. D-913-001

PAGE 1 OF 2

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P47-F506A	3 C-5	C ACTIVE	10 CHV	SEV	C	FE-Q		F		Test with pump test.
1P47-F506B	3 H-5	C ACTIVE	10 CHV	SEV	C	FE-Q		F		Test with pump test.
1P47-F506C	3 E-5	C ACTIVE	10 CHV	SEV	C	FE-Q		F		Test with pump test.
1P47-F574A	3 C-5	C ACTIVE	3/4 REV	SEV	DE	RT-5Y				
1P47-F574B	3 H-5	C ACTIVE	3/4 REV	SEV	DE	RT-5Y				
1P47-F574C	3 E-5	C ACTIVE	3/4 REV	SEV	DE	RT-5Y				

## PERRY PLANT UNIT 1

SYSTEM: CONTROL COMPLEX CHILLED WATER (P47)

VALVE TEST TABLE REV. 1

DWG. NO. D-913-002

PAGE 2 OF 2

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P47-F290A	3 D-3	B ACTIVE	6 BFV	MOV	0	FE-Q ST-Q PI-2Y		C		
1P47-F290B	3 E-3	B ACTIVE	6 BFV	MOV	0	FE-Q ST-Q PI-2Y		C		
1P47-F295A	3 E-4	R ACTIVE	6 BFV	MOV	0	FE-Q ST-Q PI-2Y		C		
1P47-F295B	3 F-3	B ACTIVE	6 BFV	MOV	0	FE-Q ST-Q PI-2Y		C		

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 31

VALVE TEST TABLES

FOR

ESW SCREEN WASH (P49)

DWG. NO. D-302-214

## PERRY PLANT UNIT 1

SYSTEM: ESW SCREEN WASH (P49)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-214

PAGE 1 OF 1

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
P49-F502A	3 C-11	C ACTIVE	6 CHV	SEV	C	FE-Q		F		TEST WITH PUMP (IEB: 83-03)
P49-F502B	3 G-11	C ACTIVE	6 CHV	SEV	C	FE-Q		F		TEST WITH PUMP (IEB: 83-03)



PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 32

VALVE TEST TABLES

FOR

CONTAINMENT VESSEL CHILLED WATER (P50)

DWG. NO. D-913-008

## PERRY PLANT UNIT 1

SYSTEM: CONTAINMENT VESSEL CHILLED WATER (P50)

VALVE TEST TABLE REV. 1

DWG. NO. D-913-008

PAGE 1 OF 1

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P50-F060	2 E-3	A ACTIVE	6 BFV	MOV	0	FE-Q ST-Q LJ-RO PI-2Y	C 30			
1P50-F140	2 D-5	A ACTIVE	6 BFV	MOV	0	FE-Q ST-Q LJ-RO PI-2Y	C 30			
1P50-F150	2 D-3	A ACTIVE	6 BFV	MOV	0	FE-Q ST-Q LJ-RO PI-2Y	C 30			
1P50-F539	2 E-5	AC ACTIVE	6 CHV	SEV	0	FE-Q LJ-RO		R	VR-28	
1P50-F570	2 F-4	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				
1P50-F571	2 E-4	A PASSIVE	3/4 GLV	MAN	LC	LJ-RO				

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 33

VALVE TEST TABLES

FOR

SERVICE AIR DISTRIBUTION (P51)

DWG. NO. D-302-242

## PERRY PLANT UNIT 1

SYSTEM: SERVICE AIR DISTRIBUTION (P51)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-242

PAGE 1 OF 1

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P51-F150	2 F-10	A ACTIVE	2½ GLV	POV	O	FE-Q ST-Q FS-Q LJ-R0 PI-2Y	C 15			
1P51-F521	2 G-10	A PASSIVE	3/4 GLV	MAN	C	LJ-R0				
1P51-F530	2 G-10	AC ACTIVE	2½ CHV	SEV	C	LJ-R0				Maintenance only
1P51-F652	2 J-12	B ACTIVE	1½ GLV	MOV	O	FE-Q ST-Q PI-2Y	C 22.5			

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 34

VALVE TEST TABLES

FOR

INSTRUMENT AIR (P52)

DWG. NO. D-302-243

## PERRY PLANT UNIT 1

SYSTEM: INSTRUMENT AIR (P52)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-243

PAGE 1 OF 2

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P52-F160	2 H-11	A ACTIVE	3/4 GLV	SOV	0	FE-Q ST-Q FS-Q LJ-R0 PI-2Y	C 3		VR-2 VR-4	
1P52-F170	2 G-11	A ACTIVE	3/4 GLV	SOV	0	FE-Q ST-Q FS-Q LJ-R0 PI-2Y	C 3		VR-2 VR-4	
1P52-F200	2 G-10	A ACTIVE	2 GLV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 30		VR-15	
1P52-F550	2 G-10	AC ACTIVE	2 CHV	SEV	0	FE-Q LJ-R0		R	VR-28	
1P52-F556	2 G-9	A PASSIVE	3/4 GLV	MAN	C	LJ-R0				
1P52-F639	2 J-8	C ACTIVE	2 CHV	SEV	0	FE-Q		R	VR-29	
1P52-F644	2 H-11	A PASSIVE	3/4 GLV	MAN	C	LJ-R0				

## PERRY PLANT UNIT 1

SYSTEM: INSTRUMENT AIR (P52)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-243

PAGE 2 OF 2

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P52-F645	2 H-11	A PASSIVE	3/4 GLV	MAN	C	LJ-R0				
1P52-F646	2 J-8	B ACTIVE	2 GLV	MOV	O	FE-Q ST-Q PI-2Y	C 30		VR-15	

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 35

VALVE TEST TABLES

FOR

PENETRATION PRESSURIZATION (P53)

DWG. NO. D-302-761



PERRY PLANT UNIT 1

SYSTEM: PENETRATION PRESSURIZATION (P53)

VALVE TEST TABLE REV. 1

DWG. NO. D-304-761

PAGE 1 OF 3

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P53-F010	2 A-9	A ACTIVE	3/4 GLV	SOV	C	FE-Q ST-Q FS-Q LJ-RO	0 3 C 3		VR-4 VR-2	
1P53-F015	2 B-9	A ACTIVE	3/4 GLV	SOV	C	FE-Q ST-Q FS-Q LJ-RO	0 3 C 3		VR-4 VR-2	
1P53-F020	2 E-9	A ACTIVE	3/4 GLV	SOV	C	FE-Q ST-Q FS-Q LJ-RO	0 3 C 3		VR-4 VR-2	
1P53-F025	2 F-9	A ACTIVE	3/4 GLV	SOV	C	FE-Q ST-Q FS-Q LJ-RO	0 3 C 3		VR-4 VR-2	
1P53-F030	2 C-10	A ACTIVE	3/4 GLV	SOV	C	FE-Q ST-Q LJ-RO	0 3		VR-4 VR-2	Fail-As-Is
1P53-F035	2 D-12	A ACTIVE	3/4 GLV	SOV	C	FE-Q ST-Q LJ-RO	0 3		VR-4 VR-2	Fail-As-Is
1P53-F040	2 G-10	A ACTIVE	3/4 GLV	SOV	C	FE-Q ST-Q LJ-RO	0 3		VR-4 VR-2	Fail-As-Is

## PERRY PLANT UNIT 1

SYSTEM: PENETRATION PRESSURIZATION (P53)

VALVE TEST TABLE REV. 1

DWG. NO. D-304-761

PAGE 2 OF 3

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P53-F045	2 G-12	A ACTIVE	3/4 GLV	SOV	C	FE-Q ST-Q LJ-RO	0 3		VR-4 VR-2	Fail-As-Is
1P53-F070	2 B-7	A ACTIVE	3/4 GLV	SOV	O	FE-Q ST-Q FS-Q LJ-RO	C 3		VR-4 VR-2	
1P53-F075	2 F-7	A ACTIVE	3/4 GLV	SOV	O	FE-Q ST-Q FS-Q LJ-RO	C 3		VR-4 VR-2	
1P53-F536	2 C-9	A PASSIVE	1 GLV	MAN	LC	LJ-RO				
1P53-F541	2 G-9	A PASSIVE	1 GLV	MAN	LC	LJ-RO				
1P53-F558	2 B-9	A PASSIVE	1 GLV	MAN	LC	LJ-RO				
1P53-F559	2 C-9	A PASSIVE	1 GLV	MAN	LC	LJ-RO				
1P53-F562	2 F-9	A PASSIVE	1 GLV	MAN	LC	LJ-RO				
1P53-F563	2 G-9	A PASSIVE	1 GLV	MAN	LC	LJ-RO				

## PERRY PLANT UNIT 1

SYSTEM: PENETRATION PRESSURIZATION (P53)

VALVE TEST TABLE REV. 1

DWG. NO. D-304-761

PAGE 3 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P53-F566	2 B-9	A PASSIVE	1 GLV	MAN	LC	LJ-RO				
1P53-F567	2 C-9	A PASSIVE	1 GLV	MAN	LC	LJ-RO				
1P53-F568	2 F-9	A PASSIVE	1 GLV	MAN	LC	LJ-RO				
1P53-F569	2 G-9	A PASSIVE	1 GLV	MAN	LC	LJ-RO				
1P53-F570	2 C-9	A PASSIVE	1 GLV	MAN	LC	LJ-RO				
1P53-F571	2 G-9	A PASSIVE	1 GLV	MAN	LC	LJ-RO				

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 36

VALVE TEST TABLES

FOR

FIRE SERVICE WATER (P54)

DWG. NO. D-914-003

D-914-005

SYSTEM: FIRE SERVICE WATER (P54)

PERRY PLANT UNIT 1

VALVE TEST TABLE REV. 1

DWG. NO. D-914-003

PAGE 1 OF 2

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.)	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P54-F726	2 C-5	A PASSIVE	4 GTV	MAN	LC	LJ-RO				
1P54-F727	2 C-7	A PASSIVE	4 GTV	MAN	LC	LJ-RO				

SYSTEM: FIRE SERVICE WATER C02 (P54)

PERRY PLANT UNIT 1

VALVE TEST TABLE REV. 1

DWG. NO. D-914-005

PAGE 2 OF 2

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P54-F340	2 F-8	A ACTIVE	4 GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 20			
1P54-F395	2 F-7	A ACTIVE	4 GTV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 20			
1P54-F1097	2 G-7	A PASSIVE	3/4 GLV	MAN	C	LJ-R0				
1P54-F1098	2 F-7	AC ACTIVE	4 CHV	SEV	0	FE-Q LJ-R0		R	VR-28	

Rev. 1

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 37

VALVE TEST TABLES

FOR

SAFETY RELATED INSTRUMENT AIR (P57)

DWG. NO. D-302-271

III-37-1

## PERRY PLANT UNIT 1

SYSTEM: SAFETY-RELATED INSTRUMENT AIR (P57)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-271

PAGE 1 OF 2

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P57-F015A	2 C-7	A ACTIVE	1 GLV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 15		VR-16	
1P57-F015B	2 G-7	A ACTIVE	1 GLV	MOV	0	FE-Q ST-Q LJ-R0 PI-2Y	C 15		VR-16	
1P57-F020A	2 C-6	B ACTIVE	1 GLV	MOV	0	FE-Q ST-Q PI-2Y	C 15		VR-16	
1P57-F020B	2 G-5	B ACTIVE	1 GLV	MOV	0	FE-Q ST-Q PI-2Y	C 15		VR-16	
1P57-F509A	3 C-10	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-26	
1P57-F509B	3 G-10	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-26	
1P57-F512A	3 C-11	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-26	
1P57-F512B	3 G-11	C ACTIVE	1 CHV	SEV	0	FE-Q		R	VR-26	
1P57-F513A	3 D-10	C ACTIVE	1 REV	SEV	DE	RT-5Y				



## PERRY PLANT UNIT 1

SYSTEM: SAFETY-RELATED INSTRUMENT AIR (P57)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-271

PAGE 2 OF 2

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P57-F513B	3 H-10	C ACTIVE	1 REV	SEV	DE	RT-5Y				
1P57-F520A	3 C-8	C ACTIVE	1 REV	SEV	DE	RT-5Y				
1P57-F520B	3 G-8	C ACTIVE	1 REV	SEV	DE	RT-5Y				
1P57-F523A	2 H-6	A PASSIVE	3/4 GLV	MAN	C	LJ-R0				
1P57-F523B	2 D-6	A PASSIVE	3/4 GLV	MAN	C	LJ-R0				
1P57-F524A	2 C-6	AC ACTIVE	1 CHV	SEV	0	FE-Q LJ-R0		R	VR-28	
1P57-F524B	2 G-6	AC ACTIVE	1 CHV	SEV	0	FE-Q LJ-R0		R	VR-28	

PUMP AND VALVE INSERVICE TESTING PROGRAM  
FOR  
PERRY NUCLEAR POWER PLANT  
UNIT NO. 1

SECTION 3.3  
ATTACHMENT 38

VALVE TEST TABLES  
FOR  
NITROGEN SUPPLY (P86)  
DWG. NO. D-302-950

## PERRY PLANT UNIT 1

SYSTEM: NITROGEN (P86)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-950

PAGE 1 OF 1

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P86-F002	2 E-8	A ACTIVE	2 GLV	MOV	C	FE-Q ST-Q LJ-R0 PI-2Y	C 30			
1P86-F526	2 E-7	A PASSIVE	3/4 GLV	MAN	C	LJ-R0				
1P86-F528	2 E-6	AC ACTIVE	2 CHV	SEV	C	LJ-R0				Maintenance only

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 39

VALVE TEST TABLES

FOR

POST ACCIDENT SAMPLING (P87)

DWG. NO. D-302-431

## PERRY PLANT UNIT 1

SYSTEM: POST ACCIDENT SAMPLING (P87)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-431

PAGE 1 OF 3

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P87-F001	2 C-12	B ACTIVE	3/8 GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y	0 3		VR-4 VR-2	
1P87-F007	2 D-12	B ACTIVE	3/8 GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y	0 3		VR-4 VR-2	
1P87-F025	2 F-12	B ACTIVE	3/8 GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y	0 3		VR-4 VR-2	
1P87-F028	2 G-12	B ACTIVE	3/8 GLV	SOV	C	FE-Q ST-Q FS-Q PI-2Y	0 3		VR-4 VR-2	
1P87-F037	2 H-11	A ACTIVE	3/4 GLV	SOV	C	FE-Q ST-Q FS-Q LK-R0 PI-2Y	0 3		VR-4 VR-2	
1P87-F046	2 E-10	A ACTIVE	3/4 GLV	SOV	C	FE-Q ST-Q FS-Q LJ-R0 PI-2Y	0 3		VR-4 VR-2	

## PERRY PLANT UNIT 1

SYSTEM: POST ACCIDENT SAMPLING (P87)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-431

PAGE 2 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P87-F049	2 D-10	B ACTIVE	3/4 GLV	SOV	C	FE-Q ST-Q FS-Q LJ-R0 PI-2Y	0 3		VR-4 VR-2	
1P87-F052	2 E-9	A ACTIVE	3/4 GLV	SOV	C	FE-Q ST-Q FS-Q LJ-R0 PI-2Y	0 3		VR-4 VR-2	
1P87-F055	2 C-9	A ACTIVE	3/4 GLV	SOV	C	FE-Q ST-Q FS-Q LJ-R0 PI-2Y	0 3		VR-4 VR-2	
1P87-F065	2 C-5	A ACTIVE	1/2 GLV	SOV	C	FE-Q ST-Q FS-Q LK-R0 PI-2Y	0 3		VR-4 VR-2	
1P87-F071	2 B-8	A ACTIVE	1/2 GLV	SOV	C	FE-Q ST-Q FS-Q LK-R0 PI-2Y	0 3		VR-4 VR-2	
1P87-F074	2 A-8	A ACTIVE	1/2 GLV	SOV	C	FE-Q ST-Q FS-Q LK-R0 PI-2Y	0 3		VR-4 VR-2	

PERRY PLANT UNIT 1

SYSTEM: POST ACCIDENT SAMPLING (P87)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-431

PAGE 3 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ. -	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1P87-F077	2 A-8	A ACTIVE	$\frac{3}{4}$ GLV	SOV	C	FE-Q ST-Q FS-Q LK-RO PI-2Y	0 3		VR-4 VR-2	
1P87-F083	2 G-8	A ACTIVE	$\frac{3}{4}$ GLV	SOV	C	FE-Q ST-Q FS-Q LJ-RO PI-2Y	0 3		VR-4 VR-2	
1P87-F167/ F169	2 H-2	A PASSIVE	$\frac{3}{4}$ GLV	MAN	LC	LJ-RO				

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 40

VALVE TEST TABLES

FOR

STANDBY DIESEL GENERATOR STARTING AIR (R44)

DWG. NO. D-302-351



## PERRY PLANT UNIT 1

SYSTEM: STANDBY DIESEL GENERATOR STARTING AIR (R44)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-351

PAGE 1 OF 3

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1R44-F010A	NC G-12	B ACTIVE	3 GTV	SOV	0	FE-Q ST-Q FS-Q	C 3			
1R44-F010B	NC D-12	B ACTIVE	3 GTV	SOV	0	FE-Q ST-Q FS-Q	C 3			
1R44-F015A	NC G-12	B ACTIVE	3 GTV	SOV	0	FE-Q ST-Q FS-Q	C 3			
1R44-F015B	NC D-12	B ACTIVE	3 GTV	SOV	0	FE-Q ST-Q FS-Q	C 3			
1R44-F020A	NC G-12	B ACTIVE	3 GTV	SOV	0	FE-Q ST-Q FS-Q	C 3			
1R44-F020B	NC D-12	B ACTIVE	3 GTV	SOV	0	FE-Q ST-Q FS-Q	C 3			
1R44-F025A	NC G-12	B ACTIVE	3 GTV	SOV	0	FE-Q ST-Q FS-Q	C 3			

## PERRY PLANT UNIT 1

SYSTEM: STANDBY DIESEL GENERATOR STARTING AIR (R44)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-351

PAGE 2 OF 3

VALVE NO.	CLASS AND DWG. COOR.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1R44-F025B	NC D-12	3 ACTIVE	3 GTV	SOV	O	FE-Q ST-Q FS-Q	C 3			
1R44-F503A	3 F-6	C ACTIVE	1½ CHV	SEV	C	FE-Q		F		
1R44-F503B	3 C-6	C ACTIVE	1½ CHV	SEV	C	FE-Q		F		
1R44-F504A	3 F-9	C ACTIVE	1½ CHV	SEV	C	FE-Q		F		
1R44-F504B	3 C-9	C ACTIVE	1½ CHV	SEV	C	FE-Q		F		
1R44-F508A	3 F-7	C ACTIVE	1½ REV	SEV	DE	RT-5Y				
1R44-F508B	3 C-7	C ACTIVE	1½ REV	SEV	DE	RT-5Y				
1R44-F518A	3 F-10	C ACTIVE	1½ REV	SEV	DE	RT-5Y				
1R44-F518B	3 C-10	C ACTIVE	1½ REV	SEV	DE	RT-5Y				
1R44-F533A	NC B-8	C ACTIVE	½ REV	SEV	DE	RT-5Y				

## PERRY PLANT UNIT 1

SYSTEM: STANDBY DIESEL GENERATOR STARTING AIR (R44)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-351

PAGE 3 OF 3

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1R44-F533B	NC D-8	C ACTIVE	$\frac{1}{2}$ REV	SEV	DE	RT-5Y				
1R44-F538A	NC C-8	C ACTIVE	$1\frac{1}{2}$ CHV	SEV	O	FE-Q		R		
1R44-F538B	NC B-8	C ACTIVE	$1\frac{1}{2}$ CHV	SEV	O	FE-Q		R		
1R44-F543A	NC C-5	B ACTIVE	$\frac{1}{2}$	SOV	C	FE-Q ST-Q	0			Proper operation of starting air verifies test requirements
1R44-F543B	NC B-5	B ACTIVE	$\frac{1}{2}$	SOV	C	FE-Q ST-Q	0			Proper operation of starting air verifies test requirements

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 41

VALVE TEST TABLES

FOR

STANDBY DIESEL GENERATOR FUEL OIL (R45)

HPCS DIESEL GENERATOR FUEL OIL (R45)

DWG. NO. D-302-352

D-302-356

## PERRY PLANT UNIT 1

SYSTEM: STANDBY DIESEL GENERATOR FUEL OIL (R45)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-352

PAGE 1 OF 2

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1R45-F502A	3 H-12	C ACTIVE	3 CHV	SEV	C	FE-Q		F		
1R45-F502B	3 H-6	C ACTIVE	3 CHV	SEV	C	FE-Q		F		
1R45-F548A	3 H-12	C ACTIVE	3 CHV	SEV	C	FE-Q		F		
1R45-F548B	3 H-5	C ACTIVE	3 CHV	SEV	C	FT-Q		F		
1R45-F559A	3 D-11	C ACTIVE	1½ REV	SEV	DE	RT-5Y				
1R45-F559B	3 D-5	C ACTIVE	1½ REV	SEV	DE	RT-5Y				

## PERRY PLANT UNIT 1

SYSTEM: HPCS DIESEL GENERATOR FUEL OIL (R45)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-356

PAGE 2 OF 2

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1R45-F510A	3 H-6	C ACTIVE	3 CHV	SEV	C	FE-Q		F		
1R45-F510B	3 H-5	C ACTIVE	3 CHV	SEV	C	FE-Q		F		
1R45-F565	3 D-4	B ACTIVE	2	POV	C	FE-Q ST-Q FS-Q PI-2Y	0			
1R45-F579A	3 G-4	C ACTIVE	3 CHV	SEV	0	FE-Q		R		
1R45-F579B	3 G-3	C ACTIVE	3 CHV	SEV	0	FE-Q		R		

PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 42

VALVE TEST TABLES

FOR

STANDBY DIESEL GENERATOR JACKET WATER (R46)

DWG. NO. D-302-354

## PERRY PLANT UNIT 1

SYSTEM: STANDBY DIESEL GENERATOR JACKET WATER (R46)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-354

PAGE 1 OF 1

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1R46-F506A	3 F-12	C ACTIVE	8 CHV	SEV	C	FE-Q		F		IEB: 83-03
1R46-F508B	3 F-16	C ACTIVE	8 CHV	SEV	C	FE-Q		F		IEB: 83-03



PUMP AND VALVE INSERVICE TESTING PROGRAM

FOR

PERRY NUCLEAR POWER PLANT

UNIT NO. 1

SECTION 3.3

ATTACHMENT 43

VALVE TEST TABLES

FOR

STANDBY DIESEL GENERATOR LUBE OIL (R47)

DWG. NO. D-302-354

PERRY PLANT UNIT 1

SYSTEM: STANDBY DIESEL GENERATOR LUBE OIL (R47)

VALVE TEST TABLE REV. 1

DWG. NO. D-302-353

PAGE 1 OF 1

VALVE NO.	CLASS AND DWG. COORD.	VALVE CAT. ACTIVE PASSIVE	SIZE (IN.) AND TYPE	ACTU. TYPE	NORM POSIT.	TEST REQ.	STROKE DIRECT AND TIME (SEC.)	CHECK VALVE TEST DIRECT.	RELIEF REQ. NO.	REMARKS
1R47-F502A	3 H-12	C ACTIVE	6 CHV	SEV	C	FE-Q		F		
1R47-F502B	3 H-6	C ACTIVE	6 CHV	SEV	C	FE-Q		F		