

September 6, 2002

10 CFR 50.55a(f)

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop OWFN, P1-35
Washington, D.C. 20555-0001

Gentlemen:

In the Matter of)	Docket No. 50-259
Tennessee Valley Authority)	50-260
		50-296

BROWNS FERRY NUCLEAR PLANT (BFN) - UNITS 1, 2, AND 3 - AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) SECTION XI, INSERVICE TESTING (IST) PROGRAM FOR THE THIRD TEN-YEAR INTERVAL

This letter submits the Third Ten-Year Inservice Testing (IST) Program for Units 1, 2, and 3 of the Browns Ferry Nuclear Plant. The Code of record for the Third Ten-Year Interval IST Program is the 1995 Edition, of the ASME OM Code through the 1996 Addenda, subject to the limitations and modifications specified in 10 CFR 50.55a(b)(3). The IST Program is applicable to all three BFN units, which are on a concurrent Ten-Year IST Interval. The Third Ten-Year Interval commences on September 1, 2002, and ends on August 31, 2012.

The Code of Federal Regulations, 10 CFR 50.55a(f), requires that inservice testing of ASME Code Class 1, 2, and 3 pumps and valves of a water-cooled nuclear facility meet the requirements of ASME Section XI. In addition, 10 CFR 50.55a(f)(4)(ii) requires that the IST Program be updated every 10 years to the latest NRC approved Edition and Addenda of Section XI, which is in effect 12 months prior to the start of the next 120-month interval. The enclosed program updates satisfy that requirement.

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The enclosure to this letter contains the updated BFN Units 1, 2, and 3 ASME Section XI IST Program for the Third Ten-Year Interval. The Program update includes two requests for relief for NRC approval. Relief request PV-1 (Appendix B) seeks approval to use alternative testing for the Standby Liquid Control Pumps. Also, relief request PV-2 (Appendix C) asks approval to use alternative testing for the Control Rod Drive scram inlet valves (185 valves per unit) and scram outlet valves (185 valves per unit). These two requests for relief are updated versions of requests for relief which were previously approved during the Second Ten-Year IST Interval at BFN.

TVA requests approval of this ASME Section XI IST Program update for BFN Units 1, 2, and 3 by March 1, 2003, to support ongoing Inservice Testing activities.

There are no new commitments contained in this letter. If you have any questions, please contact me at (256) 729-2636.

Sincerely,

original signed by:

T. E. Abney
Manager of Licensing
and Industry Affairs

cc: See Page 3

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Enclosure

cc (Enclosure):

(Via NRC Electronic Distribution)

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DTL:JWD:BAB

Enclosure

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- EDMS-K

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ENCLOSURE

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNIT 1, 2, AND 3
AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) SECTION XI,
INSERVICE TESTING (IST) PROGRAM
THIRD TEN-YEAR INSPECTION INTERVAL

INSERVICE TESTING (IST) PROGRAM

(SEE ATTACHED)

BROWNS FERRY NUCLEAR PLANT
INSERVICE TESTING PROGRAM
FOR THE THIRD TEN-YEAR INTERVAL

OWNER: TENNESSEE VALLEY AUTHORITY

ADDRESS OF CORPORATE OFFICE: KNOXVILLE OFFICE COMPLEX
400 COMMERCE AVE
KNOXVILLE, TN 37902

NAME AND ADDRESS OF NUCLEAR UNITS: BROWNS FERRY NUCLEAR PLANT
P.O. BOX 2000
DECATUR, AL 35609

APPLICABLE NUCLEAR UNITS: 1, 2, AND 3

COMMERCIAL OPERATION DATES: UNIT 1 - AUGUST 1, 1974
UNIT 2 - MARCH 1, 1975
UNIT 3 - MARCH 1, 1977

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BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

INTRODUCTION

PURPOSE

10 CFR 50.55a(f) requires the establishment and implementation of Inservice Testing (IST) to verify the operational readiness of pumps and valves whose function is required for plant safety. This document describes the implementation of IST of pumps and valves at Browns Ferry Nuclear Plant (BFN).

SCOPE

This document describes the IST Program for pumps and valves which are designated as ASME Code Class 1, 2, and 3 equivalent components that are required to perform a specific function in shutting down the reactor or in mitigating the consequences of an accident. The Code of Record for IST of pumps and valves for the Third Ten-Year Interval is the 1995 Edition of the ASME OM Code through the 1996 Addenda, subject to the limitations and modifications specified in 10 CFR 50.55a(b)(3). This IST Program is applicable to all three BFN units, which are on a concurrent Ten-Year IST Interval. The 3rd Ten-Year IST Interval begins on September 1, 2002 and runs through August 31, 2012.

DEFINITIONS

ACTIVE VALVE - A valve that must perform a mechanical motion during the course of accomplishing a system safety function.

AUTHORIZED NUCLEAR INSERVICE INSPECTOR (ANII) - Personnel qualified by written examination to meet the requirements of ANSI/ASME N626.1-1975 and who are employed by an Authorized Inspection Agency to perform inspections and verifications as required by Section XI of the ASME Boiler and Pressure Vessel Code.

GROUP A PUMPS - Pumps that are operated continuously or routinely during normal operation, cold shutdown, or refueling operations.

GROUP B PUMPS - Pumps in standby systems that are not operated routinely except for testing.

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

CATEGORY B VALVES - Valves for which there is no defined maximum seat leakage amount for the fulfillment of their function.

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

CATEGORY D VALVES - Valves which are capable of only one operation, such as rupture disks or explosively actuated valves.

IST ENGINEER (REVIEWER) - An individual who is knowledgeable of IST requirements, is capable of identifying testing requirements for affected components, and competent to verify that surveillance instruction packages are complete and that results document proper component operation.

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM
FOR THE THIRD TEN-YEAR INTERVAL

DEFINITIONS (continued)

CONTAINMENT ISOLATION VALVE (CIV) - Any valve which is relied upon to perform a primary containment isolation function. All CIVs are required to be included in the IST program as Category A valves.

EXERCISING - The demonstration based on direct visual or indirect positive indications that the moving parts of a valve function.

FULL STROKE TIME - The time interval from initiation of the actuating signal to the indication of the end of the operating stroke.

LIMITING VALUE OF STROKE TIME - The maximum allowable stroke time for a valve as determined by the owner. For BFN, the limiting values are generally established by Technical Specifications, the FSAR, or Design Criteria for individual systems. If not established by these documents, the limiting value is assigned by the IST Engineer.

NONINTRUSIVE TESTING - Testing performed on a component without disassembly or disturbing the boundary of the component.

OBTURATOR - Valve closure member (disk, gate, plug, ball, etc.)

OPERATIONAL READINESS - The ability of a valve to perform its intended function.

PASSIVE VALVE - A valve which does not perform a mechanical motion during the course of accomplishing a system safety function.

PLANT OPERATION - The conditions of startup, operation at power, hot standby, and reactor cooldown, as defined by the plant technical specifications.

PRESSURE ISOLATION VALVE (PIVS) - Valves which are normally closed or capable of automatic closure which serve to isolate a higher operating pressure system from an attached lower operating pressure system.

REFERENCE VALUES - One or more values of test parameters measured or determined when the equipment is known to be operating acceptably.

SKID-MOUNTED COMPONENTS - Components integral to or that support operation of major components, even when these components may not be located directly on the primary equipment skid. Generally, these components are supplied by the manufacturer of the major component. Examples include: diesel generator fuel oil pumps and valves, the steam admission and trip throttle valves for high-pressure coolant injection and auxiliary feedwater pump turbines, and solenoid-operated valves which provide control air to the air-operated valves.

TRENDING - A comparison of current data to previous data obtained under similar conditions for the same equipment.

**BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM
FOR THE THIRD TEN-YEAR INTERVAL**

IST PROGRAM ABBREVIATIONS FOR PUMP AND VALVE TESTING		
PARAMETER	ABBREVIATION	DESCRIPTION
VALVE TYPE	GA	Gate valve
	GL	Globe valve
	CK	Check valve
	RV	Relief valve
	SC	Stop check
	BF	Butterfly valve
	RD	Rupture disc
	PL	Plug valve
	BA	Ball valve
Actuator Type	MO	Motor Operated
	S	Solenoid Operated
	X	Explosive
	AO	Air Operated
	SELF	Self Actuated
	H	Manual
Safety Position	O	Open
	C	Closed
	O/C	Both Open and Closed
	LO	Locked open
	LC	Locked closed
Tests Performed	Q	Quarterly test
	ST	Full-stroke test
	FS	Fail-safe test
	LT	Leak-rate test
	RV	Relief valve bench test
	CV	Full-stroke check valve test
	VRPIL	Verify position indicator lights
	VI	Visual inspection
	CM	Condition Monitoring

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

GENERAL REQUIREMENTS

Title 10, Part 50 of the Code of Federal Regulations, paragraph 50.55a(f) requires the Inservice Testing (IST) of certain nuclear power facility ASME Code Class 1, 2, and 3 pumps and valves whose functions are required for safety. This testing is required to be conducted in 120-month intervals, beginning with initial power operation and continuing throughout the service life of the facility. The testing must comply with the latest edition and addenda of the American Society of Mechanical Engineers (ASME) OM Code, incorporated by reference in 10 CFR 50.55a(b), 12 months prior to the start of the 120-month interval. Specific exceptions to these requirements of ASME Section XI are included here as Relief Requests. BFNP Units 1, 2, and 3 are on a concurrent IST interval. The second 120-month interval for BFN expires on August 31, 2002. The third 120-month interval for BFN begins on September 1, 2002.

Portions of later editions and addenda of the ASME OM Code, which are incorporated by reference in 10 CFR 50.55a(b), may be used subject to limitations and modifications established by NRC, provided that all applicable requirements of the respective editions and addenda are met.

NRC Generic Letter 89-04 and NUREG-1482 provide alternatives to ASME Section XI IST requirements that are acceptable to NRC. In order to utilize the alternative methods, they must be complied with in their entirety and their use documented in the IST program.

The BFNP IST program was prepared using the following for guidance:

- ASME OM Code, 1995 Edition through the 1996 Addenda
- NRC Generic Letter 89-04
- NRC Regulatory Guide 1.26
- NUREG-0800
- NRC Temporary Instructions 2515/110 and 2515/114
- NRC Inspection Procedure (IP) 73756
- NRC Generic Letter 91-18
- NUREG-1482
- BFNP Updated Final Safety Analysis Report (UFSAR)
- BFNP Technical Specifications (TS)
- BFNP System Design Criteria

All plant pressure retaining components were reviewed for IST applicability and those meeting the following criteria have been included in the BFNP IST program. Components that meet the criteria of ISTB 1.2 and ISTC 1.2 are excluded from the IST program.

- Components which are part of the reactor coolant pressure boundary and their supports must meet the requirements applicable to components which are classified as ASME Code Class 1.
- Other safety-related pumps and valves that are required to perform a specific function to shut down the reactor or maintain the reactor in a safe shutdown condition, mitigate the consequences of an accident, or provide overpressure protection for safety-related systems must meet the requirements applicable to components which are classified as ASME Code Class 2 or Class 3. Components must meet the test requirements applicable to components which are classified as ASME Code Class 2 and 3 to the extent practical. Classification is determined by TVA Site Engineering and designated on the controlled Inservice Inspection (ISI) series of drawings.

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

IST OF PUMPS

The BFN Code of Record for IST of pumps is the 1995 edition of the ASME OM Code through the 1996 Addenda. Actual requirements may be modified in accordance with NRC NUREG-1482, NRC Generic Letter 89-04, Relief Requests, Refueling Outage Justifications, and Cold Shutdown Justifications. See Appendix A for detailed test requirements for individual pumps. Evaluation of test deficiencies shall be performed and documented in accordance with the site corrective action program. Relief requests pertaining to IST of pumps are contained in Appendix B.

IST OF VALVES

The BFN Code of Record for IST of valves is the 1995 edition of the ASME OM Code through the 1996 Addenda, subject to the limitations and modifications specified in 10 CFR 50.55a(b)(3). Actual requirements may be modified in accordance with NRC NUREG-1482, NRC Generic Letter 89-04, Relief Requests, Refueling Outage Justifications, and Cold Shutdown Justifications. See Appendix E for detailed test requirements for individual valves. Valves are tested in accordance with the requirements of their particular category. Valves which fall into more than one category are tested in accordance with the requirements of all applicable categories. Duplication or repetition of common testing requirements for valves that fall into more than one category is not performed.

The ASME Section XI valve operability requirements being satisfied by this instruction include the exercising (cycling) of the valves to the position required to perform their safety function and the stroke timing of power-operated valves. Valves having fail-safe actuators are tested by interrupting the electrical or pneumatic power to the actuator and observing the required valve operation. Exceptions to the IST requirements are documented in the Relief Request portion or in the Refueling Outage/Cold Shutdown Justification portion of the Browns Ferry Pump and Valve IST Program. Relief Requests are contained in Appendix C, and the Refueling Outage/Cold Shutdown Justifications are contained in Appendix D.

Evaluation of test deficiencies shall be performed and documented in accordance with the site surveillance testing and corrective action programs.

VALVE STROKE TIMES

The maximum allowable stroke time for any valve can not exceed any Technical Specification, FSAR, or Design Criteria requirement for maximum allowable (limiting value) stroke time, where such value exists.

For valve stroke times not addressed by the Technical Specifications or the FSAR, the maximum allowable (limiting value) stroke time will be established by engineering evaluation. In most instances, the basis for the stroke times comes from the first inservice test performed on the valve, or from the first inservice test performed following valve maintenance or modification. Maximum stroke time for these valves is established at 1.5 x the stroke time recorded on the test for valves with stroke times greater than 10 seconds, or 2.0 x the stroke time recorded on first test for valves with stroke times less than or equal to 10 seconds. In other instances, preoperational test data or valve trend data was used to establish maximum allowable stroke times (computed the same as for those based on test performances). Maximum stroke times for valves with stroke times greater than 10 seconds may be rounded off to the nearest second.

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM
FOR THE THIRD TEN-YEAR INTERVAL

REMOTE POSITION INDICATORS

Where possible, valves with remote position indicators will be observed at least once every two years to verify that valve operation is accurately indicated.

CHECK VALVES

Check valves shall be exercised in both the open and closed directions. The exercise tests are not required to be performed concurrently.

EXCESS FLOW CHECK VALVES (ECKVs)

Excess flow check valves are installed in instrument lines penetrating primary containment in accordance with Regulatory Guide 1.1. As such, the lines are sized and/or orificed such that offsite radiation doses will be substantially below 10 CFR 100 limits in the event of a rupture. Therefore, individual leak rate testing of these valves is not required for conformance with 10 CFR 50 Appendix J requirements. Functional testing of valves to verify closure can be accomplished by the process of venting the instrument side of the valve while the process side is under pressure. Such testing is required by Technical Specifications at least once per operating cycle for a representative sample of the EFCVs. Testing on a more frequent basis is not feasible for several reasons. Instruments serviced by these valves frequently have interlock or actuation functions that would be interfered with should testing be performed during plant operation. Also, process liquid will be contaminated to some degree, requiring special measures to collect flow from the vented instrument side. Functional testing with verification that excess flow is prevented will be performed for a representative sample of the EFCVs at least once per operating cycle per Technical Specifications.

FAIL-SAFE VALVES

Fail-safe valves are tested in accordance with the OM Code for loss of electrical or pneumatic actuator power.

RELIEF VALVES

Relief valves shall be tested in accordance with the OM Code Appendix I and NUREG-1482 for verification of seat tightness and opening pressure (setpoint). Relief valves are required to be tested on a percentage basis with 100% of the Class 2 and 3 valves being tested by the end of each Ten Year Interval. 100% of Class 1 valves are required to be tested in any five year interval. The intent is that relief valves be tested on a regular basis throughout the Ten Year Intervals.

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

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SEAT LEAKAGE REQUIREMENTS FOR CATEGORY A VALVES

Valves for which seat leakage is important may be generally classified as pressure isolation valves (PIVs), containment isolation valves (CIVs), or both. CIVs are required to be included in the IST program as Category A valves. Testing is performed in accordance with OM Code requirements for Category A valves.

The testing of primary containment isolation valves is performed under the BFN 10 CFR 50 Appendix J Program. For Category A PIVs the maximum allowable leak rate is established at 50% of the capacity of the upstream relief valve for the PIV. In order to ensure that any PIV does not exceed this ultimate leak rate, any PIV which has a leak rate greater than 50% of its upstream relief valve capacity shall be repaired to reduce its leak rate below the 50% figure. The maximum allowable leak rate for closed-loop water-sealed CIVs that are not PIVs is set at the capacity of the upstream relief valve. These limits may be reduced administratively to provide an additional safety margin against excessive leakage between tests.

COLD SHUTDOWN (CSD) TESTING

Some of the components listed in the IST program cannot be tested at the quarterly frequencies required by the OM Code. These components are identified as Cold Shutdown components and are addressed by the Cold Shutdown Justifications listed in Appendix D. Testing of these components is required to begin as soon as possible (within 48 hours) after the applicable unit reaches the cold shutdown conditions except as follows:

- Testing is not required if the component is within the periodicity requirements of the OM code due to a recent cold shutdown (no need to test simply because of entry into a cold shutdown). This would be the case if a cold shutdown occurred and all tests within the cold shutdown test group had been performed within the last three months. Any decision to forego cold shutdown testing based on time since the last cold shutdown testing must ensure that the three month interval will not be exceeded before the unit is ready to return to power.
- If the unit is entering a planned outage (refueling, major maintenance) where there will be sufficient time to test all of the required cold shutdown components before return to power operation, the 48 hour requirement may be waived.
- All cold shutdown tests are required to be performed during each refueling outage.

Once started, testing shall proceed in a normal manner until either all testing is completed or the unit is ready to return to power operation. Completion of all cold shutdown testing is not a prerequisite to return to power operation, unless the unit is in a refueling outage. Any testing not completed during a cold shutdown must be continued at the next cold shutdown, time and plant conditions permitting, beginning with the last valve tested during the previous cold shutdown. The valve with the longest interval since its last test and which can be tested in the current plant conditions should be tested first. Then the valve with the next longest interval should be tested, and so on until all valves deferred to CSD are tested. Any valve testing skipped due to plant conditions should be tested as soon as conditions allow.

**BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM
FOR THE THIRD TEN-YEAR INTERVAL**

PASSIVE VALVES

Category A, B, C, and D passive valves are not required to be stroke-tested for IST purposes. Passive valves are required to be tested for position indication. Category A passive valves are tested to determine compliance with seat leakage criteria. Appendix F contains a listing of valves that have been determined to be passive valves.

BFN CONDITION MONITORING PROGRAM

The 1995, 1996 Addenda, ASME OM Code contains an mandatory appendix (Appendix II) which details requirements for implementation of a Condition Monitoring Program for check valves. BFN has identified check valves which will be monitored using this appendix in lieu of the requirements of ISTC 4.5.1 through 4.5.4. The BFN Condition Monitoring Program is described in Appendix G of this program.

APPENDICES

APPENDIX A	ASME PUMP TEST PROGRAM
APPENDIX B	REQUESTS FOR RELIEF FOR THE ASME SECTION XI PUMP PROGRAM
APPENDIX C	RELIEF REQUESTS FOR THE ASME SECTION XI VALVE PROGRAM
APPENDIX D	REFUELING OUTAGE AND COLD SHUTDOWN JUSTIFICATIONS
APPENDIX E	ASME OM CODE VALVE MATRIX
APPENDIX F	PASSIVE VALVE LISTING
APPENDIX G	BFN CONDITION MONITORING PROGRAM

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM
FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX A - ASME PUMP TEST PROGRAM

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ITEM #	PUMP ID	FUNCTION	ASME CLASS	PUMP GROUP	DRAWING/DRAWING COORDINATES	RELIEF REQUEST	SPEED	DISCHARGE PRESSURE	DIFFERENTIAL PRESSURE	FLOW RATE	VIBRATION
1	0-PMP-023-0001	RHR SW PUMP A1	3	A	1-47E858-1/A-4	N/A	NR	Q	Q	Q	Q
2	0-PMP-023-0005	RHR SW PUMP A2	3	A	1-47W858-1/B-5	N/A	NR	Q	Q	Q	Q
3	0-PMP-023-0008	RHR SW PUMP C1	3	A	1-47W858-1/B-3	N/A	NR	Q	Q	Q	Q
4	0-PMP-023-0012	RHR SW PUMP C2	3	A	1-47W858-1/B-4	N/A	NR	Q	Q	Q	Q
5	0-PMP-023-0015	RHR SW PUMP B1	3	A	1-47W858-1/B-4	N/A	NR	Q	Q	Q	Q
6	0-PMP-023-0019	RHR SW PUMP B2	3	A	1-47W858-1/B-4	N/A	NR	Q	Q	Q	Q
7	0-PMP-023-0023	RHR SW PUMP D1	3	A	1-47W858-1/B-3	N/A	NR	Q	Q	Q	Q
8	0-PMP-023-0027	RHR SW PUMP D2	3	A	1-47W858-1/B-3	N/A	NR	Q	Q	Q	Q
9	0-PMP-023-0085	RHR SW PUMP A3	3	A	1-47E859-1/A-4	N/A	NR	Q	Q	Q	Q
10	0-PMP-023-0088	RHR SW PUMP B3	3	A	1-47E859-1/A-4	N/A	NR	Q	Q	Q	Q
11	0-PMP-023-0091	RHR SW PUMP C3	3	A	1-47E859-1/A-3	N/A	NR	Q	Q	Q	Q
12	0-PMP-023-0094	RHR SW PUMP D3	3	A	1-47E859-1/A-3	N/A	NR	Q	Q	Q	Q
13	1-PMP-063-0006A	1A SLC PUMP	2	B	1-47E854-1/B-5	PV-1	NR	2 YR	NR	Q	2 YR
14	1-PMP-063-0006B	1B SLC PUMP	2	B	1-47E854-1/B-5	PV-1	NR	2 YR	NR	Q	2 YR
15	1-PMP-071-0019	RCIC PUMP	2	B	1-47E813-1/F-4	N/A	Q	2 YR	Q	Q	2 YR
16	1-PMP-073-0054	HPCI PUMP	2	B	1-47E812-1/F-4	N/A	Q	2 YR	Q	Q	2 YR
17	1-PMP-074-0005	RHR PUMP 1A	2	A	1-47E811-1/B-6	N/A	NR	Q	Q	Q	Q
18	1-PMP-074-0016	RHR PUMP 1C	2	A	1-47E811-1/D-6	N/A	NR	Q	Q	Q	Q
19	1-PMP-074-0028	RHR PUMP 1B	2	A	1-47E811-1/D-3	N/A	NR	Q	Q	Q	Q
20	1-PMP-074-0039	RHR PUMP 1D	2	A	1-47E811-1/B-3	N/A	NR	Q	Q	Q	Q
21	1-PMP-075-0005	CORE SPRAY PUMP 1A	2	B	1-47E814-1/C-6	N/A	NR	2 YR	Q	Q	2 YR
22	1-PMP-075-0014	CORE SPRAY PUMP 1C	2	B	1-47E814-1/D-6	N/A	NR	2 YR	Q	Q	2 YR
23	1-PMP-075-0033	CORE SPRAY PUMP 1B	2	B	1-47E814-1/D-3	N/A	NR	2 YR	Q	Q	2 YR
24	1-PMP-075-0042	CORE SPRAY PUMP 1D	2	B	1-47E814-1/C-4	N/A	NR	2 YR	Q	Q	2 YR
25	2-PMP-063-0006A	2A SLC PUMP	2	B	2-47E854-1/D-6	PV-1	NR	2 YR	NR	Q	2 YR
26	2-PMP-063-0006B	2B SLC PUMP	2	B	2-47E854-1/D-4	PV-1	NR	2 YR	NR	Q	2 YR
27	2-PMP-071-0019	RCIC PUMP	2	B	2-47E813-1/F-4	N/A	Q	2 YR	Q	Q	2 YR
28	2-PMP-073-0054	HPCI PUMP	2	B	2-47E812-1/F-4	N/A	Q	2 YR	Q	Q	2 YR
29	2-PMP-074-0005	RHR PUMP 2A	2	A	2-47E811-1/B-6	N/A	NR	Q	Q	Q	Q
30	2-PMP-074-0016	RHR PUMP 2C	2	A	2-47E811-1/C-6	N/A	NR	Q	Q	Q	Q
31	2-PMP-074-0028	RHR PUMP 2B	2	A	2-47E811-1/B-3	N/A	NR	Q	Q	Q	Q
32	2-PMP-074-0039	RHR PUMP 2D	2	A	2-47E811-1/D-3	N/A	NR	Q	Q	Q	Q
33	2-PMP-075-0005	CORE SPRAY PUMP 2A	2	B	2-47E814-1/C-6	N/A	NR	2 YR	Q	Q	2 YR
34	2-PMP-075-0014	CORE SPRAY PUMP 2C	2	B	2-47E814-1/D-6	N/A	NR	2 YR	Q	Q	2 YR
35	2-PMP-075-0033	CORE SPRAY PUMP 2B	2	B	2-47E814-1/D-3	N/A	NR	2 YR	Q	Q	2 YR
36	2-PMP-075-0042	CORE SPRAY PUMP 2D	2	B	2-47E814-1/C-4	N/A	NR	2 YR	Q	Q	2 YR
37	3-PMP-063-0006A	3A SLC PUMP	2	B	3-47E854-1/D-6	PV-1	NR	2 YR	NR	Q	2 YR
38	3-PMP-063-0006B	3B SLC PUMP	2	B	3-47E854-1/D-4	PV-1	NR	2 YR	NR	Q	2 YR
39	3-PMP-071-0019	RCIC PUMP	2	B	3-47E813-1/F-4	N/A	Q	2 YR	Q	Q	2 YR
40	3-PMP-073-0054	HPCI PUMP	2	B	3-47E812-1/F-4	N/A	Q	2 YR	Q	Q	2 YR
41	3-PMP-074-0005	RHR PUMP 3A	2	A	3-47E811-1/B-6	N/A	NR	Q	Q	Q	Q
42	3-PMP-074-0016	RHR PUMP 3C	2	A	3-47E811-1/C-6	N/A	NR	Q	Q	Q	Q
43	3-PMP-074-0028	RHR PUMP 3B	2	A	3-47E811-1/B-3	N/A	NR	Q	Q	Q	Q
44	3-PMP-074-0035	RHR PUMP 3D	2	A	3-47E811-1/D-3	N/A	NR	Q	Q	Q	Q
45	3-PMP-075-0005	CORE SPRAY PUMP 3A	2	B	3-47E814-1/C-6	N/A	NR	2 YR	Q	Q	2 YR
46	3-PMP-075-0014	CORE SPRAY PUMP 3C	2	B	3-47E814-1/D-6	N/A	NR	2 YR	Q	Q	2 YR
47	3-PMP-075-0033	CORE SPRAY PUMP 3B	2	B	3-47E814-1/D-3	N/A	NR	2 YR	Q	Q	2 YR
48	3-PMP-075-0042	CORE SPRAY PUMP 3D	2	B	3-47E814-1/C-4	N/A	NR	2 YR	Q	Q	2 YR

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX B

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REQUESTS FOR RELIEF FOR THE ASME SECTION XI PUMP PROGRAM

Relief Request No. PV-1

System: Standby Liquid Control (SLC) (63)

Drawing: 1, 2, 3-47E854-1

Components: SLC Pumps A and B (all three units)

Class: 2

Function: Emergency injection of sodium pentaborate into the reactor vessel to bring the reactor from full power to shutdown condition.

Impractical Test Requirement: ISTC 4.7.1(f) - Frequency response range of the readout system shall be from one-third minimum pump shaft rotational speed to at least 1000 Hz.

Basis for Relief: ASME OM Code (1995, 1996 addenda) requires a frequency response range of from one-third minimum pump shaft rotational speed to at least 1000 Hertz (Hz) for vibration measuring instruments. The SLC pumps are not variable speed pumps. The SLC pump shaft rotational speed is 520 RPM, which translates to a frequency response of 8.67 Hz. To comply with the OM Code, TVA would be required to monitor a frequency range of 2.89 Hz (one-third of 8.67 Hz) to 1000 Hz; however, TVA intends to monitor from 6 Hz to at least 1000 Hz. NUREG-1482 states that the frequency response range of vibration monitoring instrumentation must meet the requirements of ASME/ANSI Standard OM-6 unless the information gained at the low frequency does not apply for the bearing design of the pump in question.

The information gained at a frequency lower than shaft rotational speed is used to detect oil swirl in sleeve type bearings. The bearings on the SLC pumps are roller type. Accordingly, there is no information gathered at a frequency lower than shaft rotational speed that would be applicable.

Therefore, TVA requests relief in accordance with 10 CFR 50.55a(a)(3)(ii) in that compliance with the test requirement would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

This request for relief was previously approved for use in the BFN Second Ten-Year IST interval. TVA submitted the request for relief (see PV-2) by letter dated May 2, 1994. TVA's request was approved by NRC letter dated May 16, 1995.

Alternative Testing: TVA will monitor the SLC pump vibration using a frequency response range of 6 Hz to at least 1000 Hz. This will encompass all frequencies from just below shaft rotational speed to the 1000 Hz minimum required by the ASME OM Code.

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

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APPENDIX C

Page 1 of 1

RELIEF REQUESTS FOR THE ASME SECTION XI VALVE PROGRAM

Relief Request No. PV-2

System: Control Rod Drive (CRD) (85)

Drawing: 1, 2, 3-47E820-2; 2-47E820-5; 1, 3-47E820-6

Components: Scram inlet valve FCV-85-39A (185 valves per reactor)
Scram outlet valve FCV-85-39B (185 valves per reactor)

Category: B (FCV-85-39A and 39B)

Class: 1 (FCV-85-39A and 39B)

Function: Control Rod Scram Water Flow Path.

Impractical Test Requirement: ASME OM Code 1995 through 1996 addenda, ISTC 4.2.1 and 4.5.1 - Exercise valves every three months and measure stroke time.

Basis for Relief: These valves located on the hydraulic control units for the 185 control rod drives function on a reactor scram signal from the reactor protection system to insert the control rods rapidly into the reactor core. Cycling these valves requires scrambling a control rod. There are 185 control rods in the reactor. Scramming every rod once every three months is not practical for the following reasons:

- a. A power reduction is required to test the scram function. Reducing power for the length of time required to scram 185 rods is not practical.
- b. Fuel preconditioning must follow this power reduction to avoid possible fuel damage. The longer the reduction in power, the longer the preconditioning.

Their proper functioning is most practically verified by an actual scram test.

Therefore, TVA proposes to use alternate testing requirements provided for in Generic Letter 89-04, Guidance on Developing Acceptable Inservice Testing Programs.”

This request was previously approved (see PV-21) for use in the BFN Second Ten-Year IST interval by NRC letter dated October 22, 1993.

Alternative Testing: Scram testing and rod insertion timing will be performed in accordance with Technical Specifications Section 3.1.4 (at reactor coolant pressure 800 psig) for:

- a. All control rods prior to THERMAL POWER exceeding 40 percent after each refueling outage.
- b. A representative sample (at least 10%) on a rotating basis at least once every 120 days cumulative operation in Mode 1.

Note: This testing is in accordance with Position 7 of NRC Generic Letter 89-04 and NUREG 1482

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APPENDIX D
REFUELING OUTAGE AND COLD SHUTDOWN JUSTIFICATIONS

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Refueling Outage Justification RO-01

System:	Main Steam (1)
Drawing:	47E801-1
Components:	Valves FCV-1-14, 26, 37, 51
Class:	1
Function:	Main Steam Isolation Valve Inboard of Primary Containment.
Impractical Test	ASME OM Code, 1995 through 1996 Addenda, ISTC 4.2.1, Requirement: 4.2.2, and 4.2.6, stroke and fail-safe position testing of valves once each quarter or on a cold shutdown basis.
Basis for Relief:	The MSIVs listed, along with their control air isolation valves, stroke adjustment needle valves, and accumulators are located inside primary containment. The fail-safe testing of these main steam isolation valves requires the isolation of control air to the valve operator and the venting of the control air accumulator for the valve. The full stroke testing of these valves requires access to the drywell in order to adjust stroke times (if needed). Entry is precluded during operation because the containment atmosphere is inerted with nitrogen gas for oxygen and hydrogen control, and radiation dose rates are prohibitive. The inert atmosphere is maintained during most cold shutdown periods.
Alternative Testing:	The stroke timing, full-stroke exercising, and fail-safe testing of these valves will be performed during each refueling outage.

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX D REFUELING OUTAGE AND COLD SHUTDOWN JUSTIFICATIONS

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Cold Shutdown Justification Number 1

System:	Reactor Recirculation
Drawing:	47E817-1
Valves:	FCV-68-3, 79
Category:	B
Class:	1
Function:	Pump A&B discharge isolation.
Justification:	The recirculation pump discharge isolation valves are in the main flow path of the reactor recirculation system, which is necessary to maintain proper cooling and reactivity control of the reactor. Cycling of these valves during power operations would interrupt the driving core flow, possibly resulting in severe changes in core power level. Cycling of these valves would also isolate that loop of the recirculation system. Failure of the valve to reopen could result in a plant shutdown, depending on plant conditions.

Cold Shutdown Justification Number 2

System:	Reactor Building Closed Cooling Water
Drawing:	47E822-1
Valves:	FCV-70-47
Category:	A
Class:	2
Function:	Primary Containment isolation.
Justification:	This valve is in the cooling water return lines for the reactor recirculation pump bearing and seal coolers as well as the drywell atmospheric coolers. Cycling of this valve during power operation would interrupt this cooling water flow, possibly causing pump bearing damage and seal failure. Drywell temperatures could also exceed allowable values, requiring unit shutdown.

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

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APPENDIX D REFUELING OUTAGE AND COLD SHUTDOWN JUSTIFICATIONS

Page 3 of 4

Cold Shutdown Justification Number 3

System:	Residual Heat Removal
Drawing:	47E811-1
Valves:	FCV-74-47, 48
Category:	A
Class:	1
Function:	Shutdown cooling isolation.
Justification:	These normally closed containment isolation valves are only required to open when bringing the unit to a cold shutdown cooling mode of RHR. Valve 74-47 is normally closed with its breaker off for Appendix R reasons. Cycling these valves with reactor pressure greater than 100 psig is prevented by logic interlocks.

Cold Shutdown Justification Number 4

System:	Main Steam
Drawing:	47E801-1
Valves:	FCV-1-15, 27, 38, 52 (Outboard MSIVs)
Category:	A
Class:	1
Function:	Main Steam Isolation for primary containment.
Justification:	Cycling of these valves during power operation requires a reduction in power to less than 70 percent of full power and involves the risk of a reactor scram.

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APPENDIX D REFUELING OUTAGE AND COLD SHUTDOWN JUSTIFICATIONS

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Cold Shutdown Justification Number 5

System: Main Steam (01)

Drawing: 2, 3-47E807-2 (MS)

Components: Main Steam Steam Seal Supply Regulator valve 1-147

Category: B

Class: 2

Function: Boundary valve for the MSIV Alternate Leakage Path.

Justification: This valve is normally closed when the unit is operating above 25% power. Because it is a boundary valve for the MSIV Alternate Leakage Path and it will open between 0% to 25% power, it is necessary to verify that it will close when it is needed. Opening this valve in order to stroke time it closed during operation would be a radiological and safety hazard for personnel. This valve will be tested on a cold shutdown basis.

Cold Shutdown Justification Number 6

System: Main Steam (01)

Drawing: 2, 3-47E801-2 (MS)

Components: Steam Jet Air Ejector (SJAE) Pressure Regulator valves
1-151, -153, -166, -167

Category: B

Class: 2

Function: Boundary valve for the MSIV Alternate Leakage Path.

Justification: These valves are normally open during operation to control operation of the SJAE stages 1, 2, and 3 (Trains A and B). Because of plant design there is no practical method of timing each valve closed without personnel being present at the valve. This would present a radiological and safety hazard during power operation. These valves will be tested on a cold shutdown basis.

**BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM
FOR THE THIRD TEN-YEAR INTERVAL**

APPENDIX E

ASME SECTION XI VALVE MATRIX NOTES

- A. This appendix provides a cross-reference of the valves in the BFN ASME Section XI Pump and Valve IST Program.

- B. The test frequencies and their respective abbreviations are as follows:
 - 1. O/OC: Once per Operating Cycle.
 - 2. CSD: Cold Shutdown.
 - 3. Q: Quarterly.
 - 4. COND: Conditional.
 - 5. O/2 yr: Once per two years.
 - 6. O/16W: Once per 16 weeks.
 - 7. O/RO: Once per Refueling Outage.
 - 8. E/RO: Every other Refueling Outage.
 - 9. CM: Frequency determined by the Condition Monitoring Program

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

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APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	TEST INTERVAL
1	1-PCV-01-0004	MS LN A RLF	1	1-47E801-1/B-3	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
2	1-PCV-01-0005	MS LN A RLF	1	1-47E801-1/B-5	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
3	1-FCV-01-0014	MS LN A INBD ISOL	1	1-47E801-1/B-6	A	26	GL	AO	O	C	Q/FS LT	RO-01 N/A	O/RO O/OC
4	1-FCV-01-0015	MS LN A OUTBD ISOL	1	1-47E801-1/B-7	A	26	GL	AO	O	C	Q/FS LT	CSDJ-04 N/A	CSD O/OC
5	1-PCV-01-0018	MS LN B RLF	1	1-47E801-1/C-1	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
6	1-PCV-01-0019	MS LN B RLF	1	1-47E801-1/C-2	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
7	1-PCV-01-0022	MS LN B RLF	1	1-47E801-1/C-3	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
8	1-PCV-01-0023	MS LN B RLF	1	1-47E801-1/C-4	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
9	1-FCV-01-0026	MS LN B INBD ISOL	1	1-47E801-1/C-6	A	26	GL	AO	O	C	Q/FS LT	RO-01 N/A	O/RO O/OC
10	1-FCV-01-0027	MS LN B OUTBD ISOL	1	1-47E801-1/C-7	A	26	GL	AO	O	C	Q/FS LT	CSDJ-04 N/A	CSD O/OC
11	1-PCV-01-0030	MS LN C RLF	1	1-47E801-1/E-1	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
12	1-PCV-01-0031	MS LN C RLF	1	1-47E801-1/E-2	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
13	1-PCV-01-0034	MS LN C RLF	1	1-47E801-1/E-4	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
14	1-FCV-01-0037	MS LN C INBD ISOL	1	1-47E801-1/E-6	A	26	GL	AO	O	C	Q/FS LT	RO-01 N/A	O/RO O/OC
15	1-FCV-01-0038	MS LN C OUTBD ISOL	1	1-47E801-1/E-7	A	26	GL	AO	O	C	Q/FS LT	CSDJ-04 N/A	CSD O/OC
16	1-PCV-01-0041	MS LN D RLF	1	1-47E801-1/F-3	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
17	1-PCV-01-0042	MS LN D RLF	1	1-47E801-1/F-4	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
18	1-FCV-01-0051	MS LN D INBD ISOL	1	1-47E801-1/F-6	A	26	GL	AO	O	C	Q/FS LT	RO-01 N/A	O/RO O/OC
19	1-FCV-01-0052	MS LN D OUTBD ISOL	1	1-47E801-1/F-7	A	26	GL	AO	O	C	Q/FS LT	CSDJ-04 N/A	CSD O/OC
20	1-FCV-01-0055	MS DRN LN INBD ISOL	1	1-47E801-1/D-6	A	3	GA	MO	C	C	Q VRPIL LT	N/A N/A N/A	Q O/2YR O/OC
21	1-FCV-01-0056	MS DRN LN OUTBD ISOL	1	1-47E801-1/D-7	A	3	GA	MO	C	C	Q VRPIL LT	N/A N/A N/A	Q O/2YR O/OC
22	1-FCV-01-0058	MS DRN TO COND ISOL	2	1-47E801-1/F-3	B	3	GL	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
23	1-FCV-01-0059	MS DRN TO COND ISOL	2	1-47E801-1/F-2	B	4	GA	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
24	1-FCV-01-0127	RFPT 2A HP STOP VLV	2	1-47E801-2/B-7	B	4	GA	HYD	O	C	Q VRPIL	N/A N/A	Q O/2YR
25	1-FCV-01-0135	RFPT 2B HP STOP VLV	2	1-47E801-2/B-6	B	4	GA	HYD	O	C	Q VRPIL	N/A N/A	Q O/2YR
26	1-FCV-01-0143	RFPT 2C HP STOP VLV	2	1-47E801-2/B-5	B	4	GA	HYD	O	C	Q VRPIL	N/A N/A	Q O/2YR
27	1-PCV-01-0147	MS STM SEAL ISOL	2	1-47E807-2/D-6	B	4	AN	AO	C	C	Q/FS VRPIL	CSDJ-05 N/A	CSD O/2YR
28	1-PCV-01-0151	SJAE 2A STG 1 & 2 SPLY PRESS REG	2	1-47E801-2/B-4	B	1-1/2	GA	AO	O	C	Q VRPIL	CSDJ-06 N/A	CSD O/2YR
29	1-PCV-01-0153	SJAE 2B STG 1 & 2 SPLY PRESS REG	2	1-47E801-2/B-3	B	1-1/2	GA	AO	O	C	Q VRPIL	CSDJ-06 N/A	CSD O/2YR
30	1-PCV-01-0166	SJAE 2A STG 3 SPLY PRESS REG	2	1-47E801-2/B-4	B	1-1/2	GA	AO	O	C	Q VRPIL	CSDJ-06 N/A	CSD O/2YR
31	1-PCV-01-0167	SJAE 2B STG 3 SPLY PRESS REG	2	1-47E801-2/B-3	B	1-1/2	GA	AO	O	C	Q VRPIL	CSDJ-06 N/A	CSD O/2YR
32	1-CKV-01-0742	OG PREHTR 2A SPLY CKV	2	1-47E801-2/D-2	C	2	CK	SELF	O	C	CV	N/A	CM
33	1-CKV-01-0744	OG PREHTR 2B SPLY CKV	2	1-47E801-2/C-2	C	2	CK	SELF	O	C	CV	N/A	CM
34	1-CKV-03-0554	FDWTR LN A OUTBD ISOL	1	1-47E803-1/G-6	AC	24	CK	SELF	O	C	CV/LT	N/A	CM
35	1-CKV-03-0558	FDWTR LN A INBD ISOL	1	1-47E803-1/G-7	AC	24	CK	SELF	O	O/C	CV/LT	N/A	CM
36	1-CKV-03-0568	FDWTR LN B OUTBD ISOL	1	1-47E803-1/F-6	AC	24	CK	SELF	O	C	CV/LT	N/A	CM
37	1-CKV-03-0572	FDWTR LN B INBD ISOL	1	1-47E803-1/F-6	AC	24	CK	SELF	O	O/C	CV/LT	N/A	CM
38	1-CKV-06-0822	SJAE 2B COND DRN CKV	2	1-47E805-3/G-7	C	1/2	CK	SELF	O	C	CV	N/A	CM
39	1-CKV-06-0826	SJAE 2A COND DRN CKV	2	1-47E805-3/G-6	C	1/2	CK	SELF	O	C	CV	N/A	CM
40	1-CKV-10-0506	MSRV TL PIPE A VC RLF	3	1-47E817-1/C-3	C	2-1/2	CK	SELF	C	O	CV	N/A	CM
41	1-CKV-10-0507	MSRV TL PIPE B VC RLF	3	1-47E817-1/C-3	C	2-1/2	CK	SELF	C	O	CV	N/A	CM
42	1-CKV-10-0508	MSRV TL PIPE C VC RLF	3	1-47E817-1/C-3	C	2-1/2	CK	SELF	C	O	CV	N/A	CM
43	1-CKV-10-0509	MSRV TL PIPE D VC RLF	3	1-47E817-1/C-3	C	2-1/2	CK	SELF	C	O	CV	N/A	CM
44	1-CKV-10-0510	MSRV TL PIPE E VC RLF	3	1-47E817-1/C-3	C	2-1/2	CK	SELF	C	O	CV	N/A	CM
45	1-CKV-10-0511	MSRV TL PIPE F VC RLF	3	1-47E817-1/C-3	C	2-1/2	CK	SELF	C	O	CV	N/A	CM
46	1-CKV-10-0512	MSRV TL PIPE G VC RLF	3	1-47E817-1/C-3	C	2-1/2	CK	SELF	C	O	CV	N/A	CM
47	1-CKV-10-0513	MSRV TL PIPE H VC RLF	3	1-47E817-1/C-3	C	2-1/2	CK	SELF	C	O	CV	N/A	CM
48	1-CKV-10-0514	MSRV TL PIPE I VC RLF	3	1-47E817-1/C-3	C	2-1/2	CK	SELF	C	O	CV	N/A	CM
49	1-CKV-10-0515	MSRV TL PIPE K VC RLF	3	1-47E817-1/C-3	C	2-1/2	CK	SELF	C	O	CV	N/A	CM
50	1-CKV-10-0516	MSRV TL PIPE L VC RLF	3	1-47E817-1/C-3	C	2-1/2	CK	SELF	C	O	CV	N/A	CM
51	1-CKV-10-0519	MSRV TL PIPE M VC RLF	3	1-47E817-1/C-3	C	2-1/2	CK	SELF	C	O	CV	N/A	CM
52	1-CKV-10-0520	MSRV TL PIPE N VC RLF	3	1-47E817-1/C-3	C	2-1/2	CK	SELF	C	O	CV	N/A	CM
53	1-CKV-10-0521	MSRV TL PIPE O VC RLF	3	1-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
54	1-CKV-10-0522	MSRV TL PIPE B VC RLF	3	1-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
55	1-CKV-10-0523	MSRV TL PIPE C VC RLF	3	1-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
56	1-CKV-10-0524	MSRV TL PIPE D VC RLF	3	1-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
57	1-CKV-10-0525	MSRV TL PIPE E VC RLF	3	1-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	TEST INTERVAL
58	1-CKV-10-0526	MSRV TL PIPE F VC RLF	3	1-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
59	1-CKV-10-0527	MSRV TL PIPE G VC RLF	3	1-47E817-1/E-3	C	10	CK	SELF	C	O	CV	N/A	CM
60	1-CKV-10-0528	MSRV TL PIPE H VC RLF	3	1-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
61	1-CKV-10-0529	MSRV TL PIPE J VC RLF	3	1-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
62	1-CKV-10-0530	MSRV TL PIPE K VC RLF	3	1-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
63	1-CKV-10-0531	MSRV TL PIPE L VC RLF	3	1-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
64	1-CKV-10-0532	MSRV TL PIPE M VC RLF	3	1-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
65	1-CKV-10-0533	MSRV TL PIPE N VC RLF	3	1-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
66	1-FCV-23-0034	RHR HTX A OUTLT	3	1-47E858-1/E-8	B	12	GL	MO	C	O	Q/VRPIL	N/A	Q
67	1-FCV-23-0040	RHR HTX C OUTLT	3	1-47E858-1/H-8	B	12	GL	MO	C	O	Q/VRPIL	N/A	Q
68	1-FCV-23-0046	RHR HTX B OUTLT	3	1-47E858-1/E-5	B	12	GL	MO	C	O	Q/VRPIL	N/A	Q
69	1-FCV-23-0052	RHR HTX D OUTLT	3	1-47E858-1/H-5	B	12	GL	MO	C	O	Q/VRPIL	N/A	Q
70	1-FCV-23-0057	STANDBY COOLANT ISOL	3	1-47E858-1/G-5	B	10	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
71	0-CKV-23-0502	RHRSW A1 PMP DISCH CKV	3	1-47E858-1/B-5	C	18	CK	SELF	C	O/C	CV	N/A	Q
72	0-HCV-23-0504	RHRSW A1-A2 PMP XTIE	3	1-47E858-1/B-5	B	18	GA	H	O	O/C	Q	N/A	Q
73	0-CKV-23-0506	RHRSW A2 PMP DISCH CKV	3	1-47E858-1/B-5	C	18	CK	SELF	C	O/C	CV	N/A	Q
74	1-RFV-23-0509	RHR HTX A SPLY RLF	3	1-47E858-1/E-7	C	1	RV	SELF	C	O	RV	N/A	COND
75	1-CKV-23-0510	RHR HTX A INLT CKV	3	1-47E858-1/E-7	C	16	CK	SELF	C	O	CV	N/A	CM
76	1-RFV-23-0516	RHR HTX A TUBE RLF	3	1-47E858-1/E-7	C	1	RV	SELF	C	O	RV	N/A	COND
77	0-CKV-23-0522	RHRSW B1 PMP DISCH CKV	3	1-47E858-1/B-4	C	18	CK	SELF	C	O/C	CV	N/A	Q
78	0-HCV-23-0524	RHRSW B1-B2 PMP XTIE	3	1-47E858-1/B-4	B	18	GA	H	O	O/C	Q	N/A	Q
79	0-CKV-23-0526	RHRSW B2 PMP DISCH CKV	3	1-47E858-1/B-4	C	18	CK	SELF	C	O/C	CV	N/A	Q
80	1-RFV-23-0529	RHR HTX B SPLY RLF	3	1-47E858-1/E-5	C	1	RV	SELF	C	O	RV	N/A	COND
81	1-CKV-23-0530	RHR HTX B INLT CKV	3	1-47E858-1/E-5	C	16	CK	SELF	C	O	CV	N/A	CM
82	1-RFV-23-0536	RHR HTX B TUBE RLF	3	1-47E858-1/E-6	C	1	RV	SELF	C	O	RV	N/A	COND
83	0-CKV-23-0542	RHRSW C2 PMP DISCH CKV	3	1-47E858-1/B-4	C	18	CK	SELF	C	O/C	CV	N/A	Q
84	0-HCV-23-0544	RHRSW C1-C2 PMP XTIE	3	1-47E858-1/B-3	B	18	GA	H	O	O/C	Q	N/A	Q
85	0-CKV-23-0546	RHRSW C1 PMP DISCH CKV	3	1-47E858-1/B-3	C	18	CK	SELF	C	O/C	CV	N/A	Q
86	1-RFV-23-0549	RHR HTX C SPLY RLF	3	1-47E858-1/E-8	C	1	RV	SELF	C	O	RV	N/A	COND
87	1-CKV-23-0550	RHR HTX C INLT CKV	3	1-47E858-1/E-8	C	16	CK	SELF	C	O	CV	N/A	CM
88	1-RFV-23-0555	RHR HTX C TUBE RLF	3	1-47E858-1/H-6	C	1	RV	SELF	C	O	RV	N/A	COND
89	0-CKV-23-0561	RHRSW D2 PMP DISCH CKV	3	1-47E858-1/B-3	C	18	CK	SELF	C	O/C	CV	N/A	Q
90	0-HCV-23-0563	RHRSW D1-D2 PMP XTIE	3	1-47E858-1/B-3	B	18	GA	H	O	O/C	Q	N/A	Q
91	0-CKV-23-0565	RHRSW D1 PMP DISCH CKV	3	1-47E858-1/B-3	C	18	CK	SELF	C	O/C	CV	N/A	Q
92	1-RFV-23-0568	RHR HTX D SPLY RLF	3	1-47E858-1/E-5	C	1	RV	SELF	C	O	RV	N/A	COND
93	1-CKV-23-0569	RHR HTX D INLT CKV	3	1-47E858-1/E-5	C	16	CK	SELF	C	O	CV	N/A	CM
94	1-RFV-23-0574	RHR HTX D TUBE RLF	3	1-47E858-1/H-6	C	1	RV	SELF	C	O	RV	N/A	COND
95	0-CKV-23-0588	RHRSW A3 PMP DISCH CKV	3	1-47E858-1/B-5	C	18	CK	SELF	C	O/C	CV	N/A	Q
96	0-CKV-23-0591	RHRSW B3 PMP DISCH CKV	3	1-47E858-1/B-4	C	18	CK	SELF	C	O/C	CV	N/A	Q
97	0-CKV-23-0594	RHRSW C3 PMP DISCH CKV	3	1-47E858-1/B-3	C	18	CK	SELF	C	O/C	CV	N/A	Q
98	0-CKV-23-0597	RHRSW D3 PMP DISCH CKV	3	1-47E858-1/B-2	C	18	CK	SELF	C	O/C	CV	N/A	Q
99	0-CKV-23-0601	RHRSW HDR C KP FILL	3	1-47E858-1/E-4	C	1.5	CK	SELF	O	C	CV	N/A	CM
100	0-CKV-23-0603	RHRSW HDR A KP FILL	3	1-47E858-1/E-4	C	1.5	CK	SELF	O	C	CV	N/A	CM
101	0-CKV-23-0605	RHRSW HDR B KP FILL	3	1-47E858-1/E-3	C	1.5	CK	SELF	O	C	CV	N/A	CM
102	0-CKV-23-0607	RHRSW HDR D KP FILL	3	1-47E858-1/E-3	C	1.5	CK	SELF	O	C	CV	N/A	CM
103	1-HCV-24-0712A	CB CHLR A DISCH ISOL	3	1-47E844-2/E-8	B	6	GA	H	O/C	O/C	Q	N/A	Q
104	1-HCV-24-0712B	CB CHLR B DISCH ISOL	3	1-47E844-2/E-8	B	6	GA	H	O/C	O/C	Q	N/A	Q
105	1-CKV-24-886	RCW TO PANEL 1-25-340	3	1-47E844-2/A-6	C	1	CK	SELF	C	C	CV	N/A	CM
106	1-CKV-24-891	RCW TO PANEL 1-25-341	3	1-47E844-2/A-5	C	1	CK	SELF	C	C	CV	N/A	CM
107	1-FCV-32-0062	DW CTRL AIR CMPR SUCT ISOL	2	1-47E610-32-2/B-8	A	3	PL	AO	O	C	Q/FS LT VRPIL	N/A N/A N/A	Q O/C O/2YR
108	1-FCV-32-0063	DW CTRL AIR CMPR SUCT ISOL	2	1-47E610-32-2/B-7	A	3	PL	AO	O	C	Q/FS LT VRPIL	N/A N/A N/A	Q O/C O/2YR
109	1-CKV-32-0336	DW CTRL AIR CNTMT ISOL	2	1-47E1847-6/E-3	AC	1	CK	SELF	O/C	C	CV/LT	N/A	CM
110	1-CKV-32-0915	DW CTRL AIR CNTMT ISOL	2	1-47E1847-10/D-5	AC	1	CK	SELF	O/C	C	CV/LT	N/A	CM
111	1-CKV-32-2516	DW CTRL AIR CNTMT ISOL	2	1-47E1847-10/B-7	AC	3/4	CK	SELF	O/C	C	CV/LT	N/A	CM
112	1-CKV-32-2521	DW CTRL AIR CNTMT ISOL	2	1-47E1847-6/D-3	AC	3/4	CK	SELF	O/C	C	CV/LT	N/A	CM
113	1-FCV-43-0013	RECIRC CNTMT ISOL	1	1-47E610-43-1/H-4	A	3/4	GL	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/C O/2YR
114	1-FCV-43-0014	RECIRC CNTMT ISOL	1	1-47E610-43-1/G-4	A	3/4	GL	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/C O/2YR
115	1-FSV-43-0028A	RECIRC SMPL ISOL	N	1-47E610-43-1/E-3	A	1/2	GL	S	C	C	LT	N/A	O/C
116	1-FSV-43-0028B	RECIRC SMPL ISOL	N	1-47E610-43-1/D-3	A	1/2	GL	S	C	C	LT	N/A	O/C
117	1-FSV-43-0029A	RECIRC SMPL ISOL	N	1-47E610-43-1/E-2	A	1/2	GL	S	C	C	LT	N/A	O/C
118	1-FSV-43-0029B	RECIRC SMPL ISOL	N	1-47E610-43-1/D-2	A	1/2	GL	S	C	C	LT	N/A	O/C
119	0-CKV-50-1017	EECW HDR A CHEM INJ	3	0-47E839-5/G-6	C	1	CK	SELF	O/C	C	Q	N/A	CM
120	0-CKV-50-1018	EECW HDR A CHEM INJ	3	0-47E839-5/G-6	C	1	CK	SELF	O/C	C	Q	N/A	CM
121	0-CKV-50-1019	EECW HDR B CHEM INJ	3	0-47E839-5/G-5	C	1	CK	SELF	O/C	C	Q	N/A	CM
122	0-CKV-50-1020	EECW HDR B CHEM INJ	3	0-47E839-5/G-5	C	1	CK	SELF	O/C	C	Q	N/A	CM
123	0-CKV-50-1021	EECW HDR C CHEM INJ	3	0-47E839-5/G-4	C	1	CK	SELF	O/C	C	Q	N/A	CM
124	0-CKV-50-1022	EECW HDR C CHEM INJ	3	0-47E839-5/G-4	C	1	CK	SELF	O/C	C	Q	N/A	CM
125	0-CKV-50-1023	EECW HDR D CHEM INJ	3	0-47E839-5/G-3	C	1	CK	SELF	O/C	C	Q	N/A	CM

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	TEST INTERVAL
126	0-CKV-50-1024	EECW HDR D CHEM INJ	3	0-47E839-5/G-3	C	1	CK	SELF	O/C	C	Q	N/A	CM
127	1-FCV-63-0008A	SLC PMP A INJ	2	1-47E854-1/F-6	D	1.5	GA	X	C	O	DT	N/A	E/RO
128	1-FCV-63-0008B	SLC PMP B INJ	2	1-47E854-1/E-6	D	1.5	GA	X	C	O	DT	N/A	E/RO
129	1-RFV-63-0512	SLC PMP A RLF	2	1-47E854-1/E-5	C	1	RV	SELF	C	O	RV	N/A	O/OC
130	1-RFV-63-0513	SLC PMP B RLF	2	1-47E854-1/E-4	C	1	RV	SELF	C	O	RV	N/A	O/OC
131	1-CKV-63-0514	SLC PMP A DISCH CKV	2	1-47E854-1/E-5	C	1.5	CK	SELF	C	O	CV	N/A	CM
132	1-CKV-63-0516	SLC PMP B DISCH CKV	2	1-47E854-1/E-4	C	1.5	CK	SELF	C	O	CV	N/A	CM
133	1-CKV-63-0525	SLC CNTMT ISOL	1	1-47E854-1/E-7	AC	1.5	CK	SELF	C	O/C	CV	N/A	CM
134	1-CKV-63-0526	SLC CNTMT ISOL	1	1-47E854-1/D-7	AC	1.5	CK	SELF	C	O/C	CV	N/A	CM
135	1-FCV-64-0020	PSC VC RLF ISOL	2	1-47E865-1/C-5	A	20	BF	AO	C	O	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
136	1-FCV-64-0021	PSC VC RLF ISOL	2	1-47E865-1/B-5	A	20	BF	AO	C	O	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
137	1-FCV-64-0028A	PSC TO DW VCRLF	N	1-47E610-64-1/B-5	C	18	CK	SELF/AO	C	O	CV VRPIL	N/A N/A	Q O/2YR
138	1-FCV-64-0028B	PSC TO DW VCRLF	N	1-47E610-64-1/B-5	C	18	CK	SELF/AO	C	O	CV VRPIL	N/A N/A	Q O/2YR
139	1-FCV-64-0028C	PSC TO DW VCRLF	N	1-47E610-64-1/B-5	C	18	CK	SELF/AO	C	O	CV VRPIL	N/A N/A	Q O/2YR
140	1-FCV-64-0028D	PSC TO DW VCRLF	N	1-47E610-64-1/B-5	C	18	CK	SELF/AO	C	O	CV VRPIL	N/A N/A	Q O/2YR
141	1-FCV-64-0028E	PSC TO DW VCRLF	N	1-47E610-64-1/B-5	C	18	CK	SELF/AO	C	O	CV VRPIL	N/A N/A	Q O/2YR
142	1-FCV-64-0028F	PSC TO DW VCRLF	N	1-47E610-64-1/B-5	C	18	CK	SELF/AO	C	O	CV VRPIL	N/A N/A	Q O/2YR
143	1-FCV-64-0028G	PSC TO DW VCRLF	N	1-47E610-64-1/B-5	C	18	CK	SELF/AO	C	O	CV VRPIL	N/A N/A	Q O/2YR
144	1-FCV-64-0028H	PSC TO DW VCRLF	N	1-47E610-64-1/B-5	C	18	CK	SELF/AO	C	O	CV VRPIL	N/A N/A	Q O/2YR
145	1-FCV-64-0028J	PSC TO DW VCRLF	N	1-47E610-64-1/B-5	C	18	CK	SELF/AO	C	O	CV VRPIL	N/A N/A	Q O/2YR
146	1-FCV-64-0028K	PSC TO DW VCRLF	N	1-47E610-64-1/B-5	C	18	CK	SELF/AO	C	O	CV VRPIL	N/A N/A	Q O/2YR
147	1-FCV-64-0028L	PSC TO DW VCRLF	N	1-47E610-64-1/B-5	C	18	CK	SELF/AO	C	O	CV VRPIL	N/A N/A	Q O/2YR
148	1-FCV-64-0028M	PSC TO DW VCRLF	N	1-47E610-64-1/B-5	C	18	CK	SELF/AO	C	O	CV VRPIL	N/A N/A	Q O/2YR
149	1-FCV-64-0031	DW SBTG INBD CNTMT ISOL	2	1-47E865-1/F-3	A	2	BF	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
150	1-FCV-64-0034	PSC SBTG OUTBD CNTMT ISOL	2	1-47E865-1/C-2	A	2	BF	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
151	1-FCV-64-0139	DCACMP SUCT CNTMT ISOL	2	1-47E610-64-2/F-3	A	3	GL	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
152	1-FCV-64-0140	DCA CMP DISCH CNTMT ISOL	2	1-47E610-64-2/F-4	A	3	GL	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
153	1-FCV-64-0221	PSC VENT TO PLANT STCK ISOL	2	1-47E2865-12/A-8	A	14	BF	AO	C	O/C	Q/FS LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
154	1-FCV-64-0222	PSC VENT TO PLANT STCK ISOL	2	1-47E2865-12/A-8	A	14	BF	AO	C	O/C	Q/FS LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
155	1-CKV-64-0800	PSC VCRLF CKV	2	1-47E865-1/C-5	AC	20	CK	SELF	C	O/C	Q	N/A	CM
156	1-CKV-64-0801	PSC VCRLF CKV	2	1-47E865-1/C-5	AC	20	CK	SELF	C	O/C	Q	N/A	CM
157	0-FCV-67-0001	EECW HDR A STR BKWSH	3	1-47E859-1/A-5	B	1.25	BA	MO	O/C	O	Q/VRPIL	N/A	Q
158	0-FCV-67-0005	EECW HDR B STR BKWSH	3	1-47E859-1/B-5	B	1.25	BA	MO	O/C	O	Q/VRPIL	N/A	Q
159	0-FCV-67-0008	EECW HDR C STR BKWSH	3	1-47E859-1/D-2	B	1.25	BA	MO	O/C	O	Q/VRPIL	N/A	Q
160	0-FCV-67-0011	EECW HDR D STR BKWSH	3	1-47E859-1/C-2	B	14	BA	MO	O/C	O	Q/VRPIL	N/A	Q
161	0-FCV-67-0048	EECW/RHRSW XTIE	3	1-47E859-1/B-3	B	14	BF	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
162	0-FCV-67-0049	EECW/RHRSW XTIE	3	1-47E859-1/B-3	B	14	BF	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
163	1-FCV-67-0050	EECW N HDR TO RBCCW HTX	3	1-47E859-1/E-5	B	8	BA	AO	C	C	Q VRPIL	N/A N/A	Q O/2YR
164	1-FCV-67-0051	EECW S HDR TO RBCCW HTX	3	1-47E859-1/C-5	B	8	BA	AO	C	C	Q VRPIL	N/A N/A	Q O/2YR
165	0-FCV-67-0053	EECW N HDR TO AIR CMPSR	3	1-47E859-1/G-6	B	4	BA	AO	C	C	Q VRPIL	N/A N/A	Q O/2YR
166	0-HCV-67-0088	EECW/RHRSW XTIE	3	1-47E859-1/B-4	B	14	BF	H	C	O/C	Q	N/A	Q
167	0-HCV-67-0089	EECW/RHRSW XTIE	3	1-47E859-1/B-4	B	14	BF	H	C	O/C	Q	N/A	Q
168	0-CKV-67-0502	SOUTH HDR CKV	3	1-47E859-1/B-8	C	18	CK	SELF	O/C	O/C	CV	N/A	Q
169	0-CKV-67-0507	1D DG CLR S HDR CKV	3	1-47E859-1/C-7	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
170	0-CKV-67-0508	1D DG CLR S HDR CKV	3	1-47E859-1/C-8	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
171	0-CKV-67-0514	1C DG CLR S HDR CKV	3	1-47E859-1/D-7	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
172	0-CKV-67-0515	1C DG CLR S HDR CKV	3	1-47E859-1/D-8	C	4	CK	SELF	O/C	O/C	CV	N/A	CM

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	TEST INTERVAL
173	0-CKV-67-0521	1B DG CLR S HDR CKV	3	1-47E859-1/F-7	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
174	0-CKV-67-0522	1B DG CLR S HDR CKV	3	1-47E859-1/F-8	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
175	0-CKV-67-0528	1A DG CLR S HDR CKV	3	1-47E859-1/G-7	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
176	0-CKV-67-0529	1A DG CLR S HDR CKV	3	1-47E859-1/G-8	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
177	0-CKV-67-0538	CB CHLR S HDR SPLY CKV	3	1-47E859-1/G-7	C	6	CK	SELF	O/C	O/C	CV	N/A	CM
178	0-CKV-67-0539	CB CHLR S HDR SPLY CKV	3	1-47E859-1/G-7	C	6	CK	SELF	O/C	O/C	CV	N/A	CM
179	1-CKV-67-0541	LP I CS CLR S HDR SPLY	3	1-47E859-1/F-7	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
180	1-CKV-67-0542	LP I CS CLR S HDR SPLY	3	1-47E859-1/F-7	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
181	1-CKV-67-0558	LP I RHR CLR S HDR SPLY	3	1-47E859-1/C-6	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
182	1-CKV-67-0559	LP I RHR CLR S HDR SPLY	3	1-47E859-1/C-6	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
183	1-CKV-67-0584	LP II CS CLR S HDR SPLY	3	1-47E859-1/F-5	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
184	1-CKV-67-0585	LP II CS CLR S HDR SPLY	3	1-47E859-1/F-5	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
185	1-CKV-67-0600	LP II RHR CLR S HDR SPLY	3	1-47E859-1/C-4	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
186	1-CKV-67-0601	LP II RHR CLR S HDR SPLY	3	1-47E859-1/C-4	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
187	0-CKV-67-0619	SOUTH HDR CKV	3	1-47E859-1/C-1	C	18	CK	SELF	O/C	O	CV	N/A	Q
188	0-CKV-67-0622	NORTH HDR CKV	3	1-47E859-1/E-8	C	18	CK	SELF	O/C	O	CV	N/A	Q
189	0-CKV-67-0624	1C DG CLR N HDR CKV	3	1-47E859-1/D-7	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
190	0-CKV-67-0625	1C DG CLR N HDR CKV	3	1-47E859-1/D-8	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
191	0-CKV-67-0627	1D DG CLR N HDR CKV	3	1-47E859-1/C-7	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
192	0-CKV-67-0628	1D DG CLR N HDR CKV	3	1-47E859-1/C-8	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
193	0-CKV-67-0630	1B DG CLR N HDR CKV	3	1-47E859-1/F-7	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
194	0-CKV-67-0631	1B DG CLR N HDR CKV	3	1-47E859-1/F-8	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
195	0-CKV-67-0634	1A DG CLR N HDR CKV	3	1-47E859-1/G-7	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
196	0-CKV-67-0635	1A DG CLR N HDR CKV	3	1-47E859-1/G-8	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
197	1-CKV-67-0638	LP I RHR CLR N HDR SPLY	3	1-47E859-1/F-6	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
198	1-CKV-67-0639	LP I RHR CLR N HDR SPLY	3	1-47E859-1/C-6	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
199	1-CKV-67-0648	LP I CS CLR N HDR SPLY	3	1-47E859-1/F-6	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
200	1-CKV-67-0649	LP I CS CLR N HDR SPLY	3	1-47E859-1/F-6	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
201	0-CKV-67-0652	CB CHLR N HDR SPLY	3	1-47E859-1/G-7	C	6	CK	SELF	C	O/C	CV	N/A	CM
202	0-CKV-67-0653	CB CHLR N HDR SPLY	3	1-47E859-1/G-7	C	6	CK	SELF	C	O/C	CV	N/A	CM
203	1-CKV-67-0656	LP II CS CLR N HDR SPLY	3	1-47E859-1/F-4	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
204	1-CKV-67-0657	LP II CS CLR N HDR SPLY	3	1-47E859-1/F-4	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
205	1-CKV-67-0659	LP II RHR CLR N HDR SPLY	3	1-47E859-1/F-4	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
206	1-CKV-67-0660	LP II RHR CLR N HDR SPLY	3	1-47E859-1/C-4	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
207	0-CKV-67-0671	NORTH HDR CKV	3	1-47E859-1/E-1	C	18	CK	SELF	O/C	O	CV	N/A	Q
208	1-HCV-67-0675	CB EMG CHLR DISCH ISOL	N	1-47E859-1/H-7	B	4	GA	H	C	O	Q	N/A	Q
209	1-HCV-67-0786	CB EMG CHLR SPLY ISOL	3	1-47E859-1/G-7	B	4	GA	H	C	O	Q	N/A	Q
210	1-CKV-67-0787	CB EMG CHLR SPLY CKV	3	1-47E859-1/G-7	C	4	CK	SELF	C	O	CV	N/A	CM
211	1-HCV-67-0788	CB EMG CHLR SPLY ISOL	3	1-47E859-1/G-7	B	4	GA	H	C	O	Q	N/A	Q
212	1-CKV-67-0789	CB EMG CHLR SPLY CKV	3	1-47E859-1/G-7	C	4	CK	SELF	C	OC	CV	N/A	CM
213	1-CKV-67-0838	H2O2 PNL 25-340 SPLY	3	1-47E859-1/H-4	C	1	CK	SELF	O/C	O	CV	N/A	CM
214	1-CKV-67-0839	H2O2 PNL 25-340 SPLY	3	1-47E859-1/H-4	C	1	CK	SELF	O/C	O	CV	N/A	CM
215	1-CKV-67-0843	H2O2 PNL 25-341 SPLY	3	1-47E859-1/H-4	C	1	CK	SELF	O/C	O	CV	N/A	CM
216	1-CKV-67-0844	H2O2 PNL 25-341 SPLY	3	1-47E859-1/H-4	C	1	CK	SELF	O/C	O	CV	N/A	CM
217	1-FCV-68-0003	RECIRC PMP A DISCH	1	1-47E817-1/D-6	B	28	GA	MO	O	C	Q	CSDJ-01 VRPIL	CSD O/2YR
218	1-FCV-68-0079	RECIRC PMP B DISCH	1	1-47E817-1/C-4	B	28	GA	MO	O	C	Q	CSDJ-01 VRPIL	CSD O/2YR
219	1-CKV-68-0508	RECIRC PMP SEAL ISOL	1	1-47E817-1/A-6	AC	3/4	CK	SELF	O	C	CV/LT	N/A	CM
220	1-CKV-68-0523	RECIRC PMP SEAL ISOL	1	1-47E817-1/A-4	AC	3/4	CK	SELF	O	C	CV/LT	N/A	CM
221	1-CKV-68-0550	RECIRC PMP SEAL ISOL	1	1-47E817-1/A-7	AC	3/4	CK	SELF	O	C	CV/LT	N/A	CM
222	1-CKV-68-0555	RECIRC PMP SEAL ISOL	1	1-47E817-1/A-3	AC	3/4	CK	SELF	O	C	CV/LT	N/A	CM
223	1-FCV-69-0001	RWCU INBD CNTMT ISOL	1	1-47E810-1/G-7	A	6	GA	MO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
224	1-FCV-69-0002	RWCU OUTBD CNTMT ISOL	1	1-47E810-1/G-6	A	6	GA	MO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
225	1-CKV-69-0579	RWCU TO FDWTR ISOL	1	1-47E810-1/E-6	AC	4	CK	SELF	O	C	CV/LT	N/A	CM
226	1-FCV-70-0047	RBCCW RTN CNTMT ISOL	2	1-47E822-1/G-2	A	8	GA	MO	O	C	Q LT VRPIL	CSDJ-02 N/A N/A	CSD O/OC O/2YR
227	1-CKV-70-0506	RBCCW SPLY CNTMT ISOL	2	1-47E822-1/G-2	AC	8	CK	SELF	O	C	CV/LT	N/A	CM
228	1-FCV-71-0002	RCIC STM LN INBD CNTMT ISOL	1	1-47E813-1/G-7	A	3	GA	MO	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
229	1-FCV-71-0003	RCIC STM LN OUTBD CNTMT ISOL	1	1-47E813-1/G-6	A	3	GA	MO	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
230	1-FCV-71-0006A	RCIC STM LN TO COND DRN	2	1-47E813-1/E-1	B	1	GA	AO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
231	1-FCV-71-0007A	RCIC CND PMP DISCH ISOL	2	1-47E813-1/A-3	B	1	GA	AO	C	C	Q VRPIL	N/A N/A	Q O/2YR
232	1-FCV-71-0008	RCIC TRB STM SPLY	2	1-47E813-1/F-1	B	4	GL	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
233	1-FCV-71-0009	RCIC TRB STOP VLV	2	1-47E813-1/F-2	B	3	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
234	1-RPD-71-0011A	RCIC TRB EXH RP DISC	2	1-47E813-1/E-3	D	8	RD	SELF	C	O	VI	N/A	O/5YR

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	TEST INTERVAL
235	1-SHV-71-0014	RCIC TRB EXH VLV	2	1-47E813-1/D-7	AC	8	SC	H/SELF	O	O/C	CV/VRPIL L LT	N/A	CM
236	1-FCV-71-0017	PSC TO RCIC INBD ISOL	2	1-47E813-1/B-6	A	6	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
237	1-FCV-71-0018	PSC TO RCIC OUTBD ISOL	2	1-47E813-1/G-4	A	6	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
238	1-RFV-71-0019	RCIC PMP SUCT RLF	2	1-47E813-1/G-4	C	1	RV	SELF	C	O	RV	N/A	COND
239	1-FCV-71-0025	RCIC LUBE OIL CLG WTR	2	1-47E813-1/B-4	B	2	GL	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
240	1-SHV-71-0032	RCIC COND VC PMP DISCH	2	1-47E813-1/D-7	AC	2	SC	H/SELF	C	C	CV/VRPIL L LT	N/A	CM
241	1-FCV-71-0034	RCIC PMP MIN FLOW	2	1-47E813-1/E-5	A	2	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
242	1-FCV-71-0037	RCIC INJ OUTBD ISOL	2	1-47E813-1/F-5	B	6	GA	MO	O	O	Q VRPIL	N/A N/A	Q O/2YR
243	1-FCV-71-0038	RCIC PMP TEST RTN TO CST	2	1-47E813-1/G-5	B	4	GL	MO	C	C	Q VRPIL	N/A N/A	Q O/2YR
244	1-FCV-71-0039	RCIC INJ INBD ISOL	2	1-47E813-1/F-6	B	6	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
245	1-FCV-71-0040	RCIC TESTABLE CKV	1	1-47E813-1/F-6	AC	6	CK	AO/SELF	C	O/C	CV/LT	N/A	CM
246	1-CKV-71-0499	CST TO RCIC PMP INLT	2	1-47E813-1/G-4	C	6	CK	SELF	C	O/C	CV	N/A	CM
247	1-CKV-71-0508	PSC TO RCIC PMP INLT	2	1-47E813-1/B-6	C	6	CK	SELF	C	O	CV	N/A	CM
248	1-RFV-71-0543	RCIC COND CLG WTR	2	1-47E813-1/B-4	C	1	RV	SELF	C	O	RV	N/A	COND
249	1-CKV-71-0547	RCIC PMP MIN FLOW	2	1-47E813-1/E-5	AC	2	CK	SELF	C	O/C	CV/LT	N/A	CM
250	1-CKV-71-0580	RCIC TRB EXH CKV	2	1-47E813-1/E-7	AC	10	CK	SELF	C	O/C	CV/LT	N/A	CM
251	1-CKV-71-0589	RCIC COND PMP CKV	2	1-47E813-1/A-3	C	2	CK	SELF	C	C	CV	N/A	CM
252	1-CKV-71-0592	RCIC VC PMP DISCH	2	1-47E813-1/D-5	AC	2	CK	SELF	C	C	CV/LT	N/A	CM
253	1-CKV-71-0597	RCIC TRB EXH VC RLF	2	1-47E813-1/E-7	C	2	CK	SELF	C	O	CV	N/A	CM
254	1-CKV-71-0598	RCIC TRB EXH VC RLF	2	1-47E813-1/E-7	C	2	CK	SELF	C	O	CV	N/A	CM
255	1-CKV-71-0599	RCIC TRB EXH VC RLF	2	1-47E813-1/D-7	C	2	CK	SELF	C	O	CV	N/A	CM
256	1-CKV-71-0600	RCIC TRB EXH VC RLF	2	1-47E813-1/D-7	C	2	CK	SELF	C	O	CV	N/A	CM
257	1-FCV-73-0002	HPCI STM LN INBD ISOL	1	1-47E812-1/G-7	A	10	GA	MO	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
258	1-FCV-73-0003	HPCI STM LN OUTBD ISOL	1	1-47E812-1/G-6	A	10	GA	MO	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
259	1-FCV-73-0006A	HPCI STM LN TO COND DRN	2	1-47E812-1/E-2	B	1	GA	AO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
260	1-FCV-73-0016	HPCI TRB STM SPLY VLV	2	1-47E812-1/G-3	B	10	GA	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
261	1-FCV-73-0018	HPCI TRB STOP VLV	2	1-47E812-1/G-3	B	10	GA	E/H	C	O	Q, FS VRPIL	N/A N/A	Q O/2YR
262	1-ISV-73-0023	HPCI TRB EXH VLV	2	1-47E812-1/D-7	AC	16	SC	H/SELF	O	O/C	CV/VRPIL L LT	N/A	CM
263	1-ISV-73-0024	HPCI EXH COND POT DISCH	2	1-47E812-1/D-6	AC	2	SC	H/SELF	C	C	CV/LT	N/A	CM
264	1-FCV-73-0026	PSC TO HPCI INBD ISOL	2	1-47E812-1/B-6	A	16	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
265	1-FCV-73-0027	PSC TO HPCI OUTBD ISOL	2	1-47E812-1/G-5	A	16	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
266	1-FCV-73-0030	HPCI PMP MIN FLOW	2	1-47E812-1/D-5	A	4	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
267	1-FCV-73-0034	HPCI INJ OUTBD ISOL	2	1-47E812-1/F-6	B	14	GA	MO	O	O	Q VRPIL	N/A N/A	Q O/OC
268	1-FCV-73-0035	HPCI PMP TEST RTN TO CST	2	1-47E812-1/F-6	B	10	GL	MO	C	C	Q VRPIL	N/A N/A	Q O/2YR
269	1-FCV-73-0040	HPCI PMP SUCTION ISOL	2	1-47E812-1/H-5	B	14	GA	MO	O	C	Q VRPIL	N/A N/A	Q O/2YR
270	1-FCV-73-0044	HPCI INJ INBD ISOL	2	1-47E812-1/F-6	B	14	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
271	1-FCV-73-0045	HPCI TESTABLE CKV	1	1-47E812-1/E-6	AC	14	CK	AO/SELF	C	O/C	CV/VRPIL L LT	N/A	CM
272	1-FCV-73-0081	1-FCV-73-3 BYPASS	1	1-47E812-1/G-6	A	1	GL	MO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
273	1-CKV-73-0505	CST TO HPCI PMP INLT	2	1-47E812-1/H-5	C	14	CK	SELF	C	O/C	CV	N/A	CM
274	1-RFV-73-0506	HPCI PMP SUCT RLF	2	1-47E812-1/G-4	C	1	RV	SELF	C	O	RV	N/A	COND
275	1-CKV-73-0517	PSC TO HPCI PMP INLT	2	1-47E812-1/B-6	C	16	CK	SELF	C	O	CV	N/A	CM
276	1-CKV-73-0559	HPCI PMP MIN FLOW CHECK	2	1-47E812-1/D-5	AC	4	CK	SELF	C	O/C	CV	N/A	CM
277	1-RFV-73-0574	HPCI PMP GLND SL COND	2	1-47E812-1/C-4	C	1	RV	SELF	C	O	RV	N/A	COND

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	TEST INTERVAL
278	1-CKV-73-0603	HPCI TRB EXH CHECK	2	1-47E812-1/D-7	AC	20	CK	SELF	C	O/C	CV/LT	N/A	CM
279	1-CKV-73-0609	HPCI TRB EXH DRN CHECK	2	1-47E812-1/D-6	AC	2	CK	SELF	C	C	CV/LT	N/A	CM
280	1-CKV-73-0625	HPCI PMP GLND SL RTN	2	1-47E812-1/B-4	C	2	CK	SELF	C	C	CV	N/A	CM
281	1-CKV-73-0633	HPCI TRB EXH VC RLF	2	1-47E812-1/D-7	C	2	CK	SELF	C	O	CV	N/A	CM
282	1-CKV-73-0634	HPCI TRB EXH VC RLF	2	1-47E812-1/D-7	C	2	CK	SELF	C	O	CV	N/A	CM
283	1-CKV-73-0635	HPCI TRB EXH VC RLF	2	1-47E812-1/E-7	C	2	CK	SELF	C	O	CV	N/A	CM
284	1-CKV-73-0636	HPCI TRB EXH VC RLF	2	1-47E812-1/E-7	C	2	CK	SELF	C	O	CV	N/A	CM
285	1-RPD-73-0729	HPCI TRB EXH RP DISC	2	1-47E812-1/D-4	D	16	RD	SELF	C	O	VI	N/A	O/5YR
286	1-FCV-74-0001	RHR PMP A PSC SUCT	2	1-47E811-1/B-5	B	24	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
287	1-FCV-74-0002	RHR PMP A SD CLG SUCT	2	1-47E811-1/C-6	B	20	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
288	1-FCV-74-0007	RHR LP I MIN FLOW	2	1-47E811-1/D-6	B	4	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
289	1-FCV-74-0012	RHR PMP C PSC SUCT	2	1-47E811-1/D-5	B	24	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
290	1-FCV-74-0013	RHR PMP C SD CLG SUCT	2	1-47E811-1/D-6	B	20	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
291	1-FCV-74-0024	RHR PMP B PSC SUCT	2	1-47E811-1/C-4	B	24	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
292	1-FCV-74-0025	RHR PMP B SD CLG SUCT	2	1-47E811-1/D-4	B	20	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
293	1-FCV-74-0030	RHR LP II MIN FLOW	2	1-47E811-1/D-3	B	4	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
294	1-FCV-74-0035	RHR PMP D PSC SUCT	2	1-47E811-1/B-4	B	24	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
295	1-FCV-74-0036	RHR PMP D SD CLG SUCT	2	1-47E811-1/C-4	B	20	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
296	1-FCV-74-0047	RHR SD CLG OUTBD ISOL	1	1-47E811-1/E-5	A	20	GA	MO	C	O/C	Q LT VRPIL	CSDJ-03 N/A N/A	CSD O/OC O/2YR
297	1-FCV-74-0048	RHR SD CLG INBD ISOL	1	1-47E811-1/E-5	A	20	GA	MO	C	O/C	Q LT VRPIL	CSDJ-03 N/A N/A	CSD O/OC O/2YR
298	1-FCV-74-0052	RHR LP I THROTTLE	2	1-47E811-1/F-7	B	24	AN	MO	O	O	Q VRPIL	N/A N/A	Q O/2YR
299	1-FCV-74-0053	RHR LP I INJ	1	1-47E811-1/F-6	A	24	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
300	1-FCV-74-0054	RHR LP I TESTABLE CKV	1	1-47E811-1/F-6	AC	24	CK	AO/SELF	C	O/C	CV/LT	N/A	CM
301	1-FCV-74-0057	RHR LP I PSC RTN	2	1-47E811-1/G-8	A	18	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
302	1-FCV-74-0058	RHR LP I PSC SPRAY	2	1-47E811-1/F-8	A	4	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
303	1-FCV-74-0059	RHR LP I PMP TEST RTN	2	1-47E811-1/F-8	A	12	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
304	1-FCV-74-0060	RHR LP I CNTMT SPRAY OUTBD ISOL	2	1-47E811-1/G-6	A	12	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
305	1-FCV-74-0061	RHR LP I CNTMT SPRAY INBD ISOL	2	1-47E811-1/G-5	A	12	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
306	1-FCV-74-0066	RHR LP II THROTTLE	2	1-47E811-1/F-3	B	24	AN	MO	O	O	Q VRPIL	N/A N/A	Q O/2YR
307	1-FCV-74-0067	RHR LP II INJ	1	1-47E811-1/F-4	A	24	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
308	1-FCV-74-0068	RHR LP II TESTABLE CKV	1	1-47E811-1/F-4	AC	24	CK	AO/SELF	C	O/C	CV/LT	N/A	CM
309	1-FCV-74-0071	RHR LP II PSC RTN	2	1-47E811-1/G-2	A	18	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
310	1-FCV-74-0072	RHR LP II PSC SPRAY	2	1-47E811-1/F-2	A	4	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
311	1-FCV-74-0073	RHR LP II PMP TEST RTN	2	1-47E811-1/F-2	A	12	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
312	1-FCV-74-0074	RHR LP II CNTMT SPRAY OUTBD ISOL	2	1-47E811-1/G-4	A	12	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
313	1-FCV-74-0075	RHR LP II CNTMT SPRAY INBD ISOL	2	1-47E811-1/G-5	A	12	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
314	1-FCV-74-0098	RHR PMP B SUCT XTIE	2	1-47E811-1/C-4	B	14	GA	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
315	1-FCV-74-0099	RHR PMP D SUCT XTIE	2	1-47E811-1/C-4	B	14	GA	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	TEST INTERVAL
316	1-FCV-74-0101	RHR HTX B-D DISCH XTIE	2	1-47E811-1/D-1	B	10	GA	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
317	1-RFV-74-0509A	RHR PMP A SUCT RLF	2	1-47E811-1/B-6	C	1	RV	SELF	C	O	RV	N/A	COND
318	1-RFV-74-0509B	RHR PMP B SUCT RLF	2	1-47E811-1/D-4	C	1	RV	SELF	C	O	RV	N/A	COND
319	1-RFV-74-0509C	RHR PMP C SUCT RLF	2	1-47E811-1/D-6	C	1	RV	SELF	C	O	RV	N/A	COND
320	1-RFV-74-0509D	RHR PMP D SUCT RLF	2	1-47E811-1/B-3	C	1	RV	SELF	C	O	RV	N/A	COND
321	1-CKV-74-0559A	RHR PMP A DISCH CKV	2	1-47E811-1/B-7	C	20	CK	SELF	C	O/C	CV	N/A	Q
322	1-CKV-74-0559B	RHR PMP B DISCH CKV	2	1-47E811-1/D-3	C	20	CK	SELF	C	O/C	CV	N/A	Q
323	1-CKV-74-0559C	RHR PMP C DISCH CKV	2	1-47E811-1/C-7	C	20	CK	SELF	C	O/C	CV	N/A	Q
324	1-CKV-74-0559D	RHR PMP D DISCH CKV	2	1-47E811-1/B-3	C	20	CK	SELF	C	O/C	CV	N/A	Q
325	1-CKV-74-0560A	RHR PMP A MIN FLOW	2	1-47E811-1/B-6	C	3	CK	SELF	C	O/C	CV	N/A	CM
326	1-CKV-74-0560B	RHR PMP A MIN FLOW	2	1-47E811-1/D-3	C	3	CK	SELF	C	O/C	CV	N/A	CM
327	1-CKV-74-0560C	RHR PMP A MIN FLOW	2	1-47E811-1/D-6	C	3	CK	SELF	C	O/C	CV	N/A	CM
328	1-CKV-74-0560D	RHR PMP A MIN FLOW	2	1-47E811-1/B-3	C	3	CK	SELF	C	O/C	CV	N/A	CM
329	1-RFV-74-0578A	RHR HTX A RLF	2	1-47E811-1/B-7	C	1	RV	SELF	C	O	RV	N/A	COND
330	1-RFV-74-0578B	RHR HTX B RLF	2	1-47E811-1/C-2	C	1	RV	SELF	C	O	RV	N/A	COND
331	1-RFV-74-0578C	RHR HTX C RLF	2	1-47E811-1/C-8	C	1	RV	SELF	C	O	RV	N/A	COND
332	1-RFV-74-0578D	RHR HTX D RLF	2	1-47E811-1/B-2	C	1	RV	SELF	C	O	RV	N/A	COND
333	1-RFV-74-0587A	RHR LP I DISCH HDR RLF	2	1-47E811-1/G-7	C	1	RV	SELF	C	O	RV	N/A	COND
334	1-RFV-74-0587B	RHR LP II DISCH HDR RLF	2	1-47E811-1/G-3	C	1	RV	SELF	C	O	RV	N/A	COND
335	1-RFV-74-0659	RHR SD CLG SPLY RLF	2	1-47E811-1/E-5	C	1	RV	SELF	C	O	RV	N/A	COND
336	1-CKV-74-0661	RHR THERMAL RLF	1	1-47E811-1/F-5	AC	3/4	CK	SELF	C	O/C	CV/LT	N/A	CM
337	1-CKV-74-0662	RHR THERMAL RLF	1	1-47E811-1/F-5	AC	3/4	CK	SELF	C	O/C	CV/LT	N/A	CM
338	1-HCV-74-0722	PSC DRN ISOL	2	1-47E811-1/E-4	A	8	GA	H	C	C	LT	N/A	O/O
339	1-CKV-74-0792	RHR LP I KP FILL	2	1-47E811-1/H-6	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
340	1-CKV-74-0802	RHR LP II KP FILL	2	1-47E811-1/H-3	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
341	1-CKV-74-0803	RHR LP II KP FILL	2	1-47E811-1/H-3	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
342	1-CKV-74-0804	RHR LP I KP FILL	2	1-47E811-1/H-6	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
343	1-FCV-75-0009	CS LP I MIN FLOW	2	1-47E814-1/F-5	B	3	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
344	1-FCV-75-0022	CS LP I PMP TEST	2	1-47E814-1/F-5	B	10	GL	MO	C	C	Q VRPIL	N/A N/A	Q O/2YR
345	1-FCV-75-0023	CS LP I INJ	2	1-47E814-1/F-6	B	12	GA	MO	O	O	Q VRPIL	N/A N/A	Q O/2YR
346	1-FCV-75-0025	CS LP I INJ	1	1-47E814-1/F-6	A	12	GA	MO	C	O	Q LT VRPIL	N/A N/A N/A	Q O/O O/2YR
347	1-FCV-75-0026	CS LP I TESTABLE CKV	1	1-47E814-1/F-7	AC	12	CK	AO/SELF	C	O/C	CV/LT	N/A	CM
348	1-FCV-75-0037	CS LP II MIN FLOW	2	1-47E814-1/F-4	B	3	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
349	1-FCV-75-0050	CS LP II PMP TEST	2	1-47E814-1/F-4	B	10	GL	MO	C	C	Q VRPIL	N/A N/A	Q O/2YR
350	1-FCV-75-0051	CS LP II INJ	2	1-47E814-1/G-6	B	12	GA	MO	O	O	Q VRPIL	N/A N/A	Q O/2YR
351	1-FCV-75-0053	CS LP II INJ	1	1-47E814-1/G-6	A	12	GA	MO	C	O	Q LT VRPIL	N/A N/A N/A	Q O/O O/2YR
352	1-FCV-75-0054	CS LP II TESTABLE CKV	1	1-47E814-1/G-7	AC	12	CK	AO/SELF	C	O/C	CV/LT	N/A	CM
353	1-FCV-75-0057	CS DRN PMP A INBD ISOL	2	1-47E814-1/B-4	A	3	GL	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/O O/2YR
354	1-FCV-75-0058	CS DRN PMP A OUTBD ISOL	2	1-47E814-1/B-5	A	3	GL	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/O O/2YR
355	1-RFV-75-0507A	CS PMP A SUCT RLF	2	1-47E814-1/C-4	C	1	RV	SELF	C	O	RV	N/A	COND
356	1-RFV-75-0507B	CS PMP B SUCT RLF	2	1-47E814-1/C-2	C	1	RV	SELF	C	O	RV	N/A	COND
357	1-RFV-75-0507C	CS PMP C SUCT RLF	2	1-47E814-1/C-6	C	1	RV	SELF	C	O	RV	N/A	COND
358	1-RFV-75-0507D	CS PMP D SUCT RLF	2	1-47E814-1/C-4	C	1	RV	SELF	C	O	RV	N/A	COND
359	1-CKV-75-0537A	CS PMP A DISCH CKV	2	1-47E814-1/D-4	C	12	CK	SELF	C	O	CV	N/A	Q
360	1-CKV-75-0537B	CS PMP B DISCH CKV	2	1-47E814-1/D-3	C	12	CK	SELF	C	O	CV	N/A	Q
361	1-CKV-75-0537C	CS PMP C DISCH CKV	2	1-47E814-1/D-6	C	12	CK	SELF	C	O	CV	N/A	Q
362	1-CKV-75-0537D	CS PMP D DISCH CKV	2	1-47E814-1/D-4	C	12	CK	SELF	C	O	CV	N/A	Q
363	1-RFV-75-0543A	CS LP I DISCH RLF	2	1-47E814-1/F-4	C	1	RV	SELF	C	O	RV	N/A	COND
364	1-RFV-75-0543B	CS LP II DISCH RLF	2	1-47E814-1/E-4	C	1	RV	SELF	C	O	RV	N/A	COND
365	1-CKV-75-0570A	CS PMP A MIN FLW	2	1-47E814-1/D-5	C	3	CK	SELF	C	O/C	CV	N/A	CM
366	1-CKV-75-0570B	CS PMP B MIN FLW	2	1-47E814-1/D-2	C	3	CK	SELF	C	O/C	CV	N/A	CM
367	1-CKV-75-0570C	CS PMP C MIN FLW	2	1-47E814-1/D-6	C	3	CK	SELF	C	O/C	CV	N/A	CM
368	1-CKV-75-0570D	CS PMP D MIN FLW	2	1-47E814-1/D-4	C	3	CK	SELF	C	O/C	CV	N/A	CM
369	1-CKV-75-0606	CS LP I KP FILL CKV	2	1-47E814-1/F-5	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
370	1-CKV-75-0607	CS LP I KP FILL CKV	2	1-47E814-1/F-5	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
371	1-CKV-75-0609	CS LP II KP FILL CKV	2	1-47E814-1/H-4	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
372	1-CKV-75-0610	CS LP II KP FILL CKV	2	1-47E814-1/H-4	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
373	1-FCV-76-0017	DW N2 MKUP OUTBD ISOL	2	1-47E860-1/C-6	A	2	BF	CYL	O/C	C	Q LT VRPIL	N/A N/A N/A	Q O/O O/2YR
374	1-FCV-76-0018	DW N2 MKUP INBD ISOL	2	1-47E860-1/C-6	A	2	BF	CYL	O/C	C	Q LT VRPIL	N/A N/A N/A	Q O/O O/2YR

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	TEST INTERVAL
375	1-FCV-76-0019	PSC N2 MKUP INBD ISOL	2	1-47E860-1/B-5	A	2	BF	CYL	O/C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
376	1-FCV-76-0024	DW N2 PURGE OUTBD ISOL	2	1-47E860-1/C-5	A	10	BF	CYL	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
377	1-FSV-76-0049	DW H2 ANALYZR A INBD ISOL	2	1-47E1610-76-3/D-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
378	1-FSV-76-0050	DW H2 ANALYZR A OUTBD ISOL	2	1-47E1610-76-3/D-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
379	1-FSV-76-0051	DW O2 ANALYZR A INBD ISOL	2	1-47E1610-76-3/F-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
380	1-FSV-76-0052	DW O2 ANALYZR A OUTBD ISOL	2	1-47E1610-76-3/F-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
381	1-FSV-76-0053	PSC O2 ANALYZR A INBD ISOL	2	1-47E1610-76-3/F-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
382	1-FSV-76-0054	PSC O2 ANALYZR A OUTBD ISOL	2	1-47E1610-76-3/F-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
383	1-FSV-76-0055	PSC H2 ANALYZR A INBD ISOL	2	1-47E1610-76-3/E-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
384	1-FSV-76-0056	PSC H2 ANALYZR A OUTBD ISOL	2	1-47E1610-76-3/E-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
385	1-FSV-76-0057	PSC RTN INBD ISOL	2	1-47E1610-76-3/E-7	A	1/2	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
386	1-FSV-76-0058	PSC RTN OUTBD ISOL	2	1-47E1610-76-3/E-7	A	1/2	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
387	1-FSV-76-0059	DW H2 ANALYZR B INBD ISOL	2	1-47E1610-76-3/D-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
388	1-FSV-76-0060	DW H2 ANALYZR B OUTBD ISOL	2	1-47E1610-76-3/D-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
389	1-FSV-76-0061	DW O2 ANALYZR B INBD ISOL	2	1-47E1610-76-3/F-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
390	1-FSV-76-0062	DW O2 ANALYZR B OUTBD ISOL	2	1-47E1610-76-3/F-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
391	1-FSV-76-0063	PSC O2 ANALYZR B INBD ISOL	2	1-47E1610-76-3/F-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
392	1-FSV-76-0064	PSC O2 ANALYZR B OUTBD ISOL	2	1-47E1610-76-3/F-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
393	1-FSV-76-0065	PSC H2 ANALYZR B INBD ISOL	2	1-47E1610-76-3/E-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
394	1-FSV-76-0066	PSC H2 ANALYZR B OUTBD ISOL	2	1-47E1610-76-3/E-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
395	1-FSV-76-0067	PSC RTN INBD ISOL	2	1-47E1610-76-3/E-7	A	1/2	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
396	1-FSV-76-0068	PSC RTN OUTBD ISOL	2	1-47E1610-76-3/E-7	A	1/2	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
397	1-CKV-76-0653	TIP INDEXER PURGE CKV	2	1-47E600-14/B-5	AC	1/4	CK	SELF	C	C	CV/LT	N/A	CM
398	1-FCV-77-0002A	DW FLR DRN SUMP INBD ISOL	2	1-47E852-1/C-4	A	3	GA	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
399	1-FCV-77-0002B	DW FLR DRN SUMP OUTBD ISOL	2	1-47E852-1/C-4	A	3	GA	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
400	1-FCV-77-0015A	DW EQ DRN SUMP INBD ISOL	2	1-47E852-2/D-3	A	3	GA	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
401	1-FCV-77-0015B	DW EQ DRN SUMP OUTBD ISOL	2	1-47E852-2/D-3	A	3	GA	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
402	1-FCV-78-0061	RHR TO FPC SPLY	2	1-47E855-1/H-6	B	6	GL	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
403	1-FCV-78-0062	RHR TO FPC SPLY	3	1-47E855-1/H-5	B	6	GA	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
404	1-SHV-78-0524	FUEL PL DIFF A ISOL	3	1-47E855-1/H-5	B	8	GL	H	LO	C	Q	N/A	Q
405	1-CKV-78-0526	FUEL PL DIFF A SPLY	3	1-47E855-1/G-5	C	8	CK	SELF	O/C	O	CV	N/A	CM
406	1-FSV-84-0008A	DW N2 SPLY TRN A	2	1-47E862-1/E-7	A	2	GA	S	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
407	1-FSV-84-0008B	PSC N2 SPLY TRN A	2	1-47E862-1/E-5	A	2	GA	S	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
408	1-FSV-84-0008C	PSC N2 SPLY TRN B	2	1-47E862-1/E-5	A	2	GA	S	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
409	1-FSV-84-0008D	DW N2 SPLY TRN B	2	1-47E862-1/E-5	A	2	GA	S	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
410	1-FCV-84-0019	DW/PSC DISCH TO SBGT	2	1-47E862-1/E-2	A	2	GA	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	TEST INTERVAL
411	1-FCV-84-0020	DW/PSC DISCH TO SBT	2	1-47E862-1/G-2	A	2	GA	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
412	1-CKV-84-0600	DW SPLY CHECK A	2	1-47E862-1/E-7	AC	2	CK	SELF	C	O/C	CV/LT	N/A	CM
413	1-CKV-84-0601	PSC SPLY CHECK A	2	1-47E862-1/E-7	AC	2	CK	SELF	C	O/C	CV/LT	N/A	CM
414	1-CKV-84-0602	DW SPLY CHECK B	2	1-47E862-1/E-5	AC	2	CK	SELF	C	O/C	CV/LT	N/A	CM
415	1-CKV-84-0603	PSC SPLY CHECK B	2	1-47E862-1/E-5	AC	2	CK	SELF	C	O/C	CV/LT	N/A	CM
416	1-FCV-85-0037C	SDIV DRN ISOL WEST	2	1-47E820-6/B-6	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
417	1-FCV-85-0037D	SDIV DRN ISOL WEST	N	1-47E820-6/B-5	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
418	1-FCV-85-0037E	SDIV DRN ISOL EAST	2	1-47E820-6/B-3	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
419	1-FCV-85-0037F	SDIV DRN ISOL EAST	N	1-47E820-6/B-3	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
420	1-FCV-85-0039A	SCRM INLT(185 TOTAL)	1	1-47E820-2/F-3	B	1	GL	AO	C	O	Q/FS	PV-2	O/16W
421	1-FCV-85-0039B	SCRM OUTLT(185 TOTAL)	1	1-47E820-2/F-3	B	3/4	GL	AO	C	O	Q/FS	PV-2	O/16W
422	1-FCV-85-0082	SCRM DISCH HDR VT W	N	1-47E820-6/G-7	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
423	1-FCV-85-0082A	SCRM DISCH HDR VT W	2	1-47E820-6/G-7	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
424	1-FCV-85-0083	SCRM DISCH HDR VT E	N	1-47E820-6/G-3	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
425	1-FCV-85-0083A	SCRM DISCH HDR VT E	2	1-47E820-6/G-3	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
426	1-CKV-85-0589	CHGING WTR(185 TOTAL)	2	1-47E820-2/F-3	C	1/2	CK	SELF	C	O/C	CV	N/A	CM
427	1-CKV-85-0597	CLG WTR(185 TOTAL)	1	1-47E820-2/G-3	C	1/2	CK	SELF	C	C	CV	N/A	CM
428	1-CKV-85-0616	SCRM OUTLT(185 TOTAL)	2	1-47E820-2/E-4	C	3/4	CK	SELF	C	O	CV	N/A	CM
429	1-FCV-90-0254A	DW LEAK DET ISOL	2	1-47E610-90-1/G-2	A	1	PL	MO	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
430	1-FCV-90-0254B	DW LEAK DET ISOL	2	1-47E610-90-1/G-1	A	1	PL	MO	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
431	1-FCV-90-0255	DW LEAK DET ISOL	2	1-47E610-90-1/G-2	A	1	PL	MO	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
432	1-FCV-90-0257A	DW LEAK DET ISOL	2	1-47E610-90-1/H-2	A	1	PL	MO	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
433	1-FCV-90-0257B	DW LEAK DET ISOL	2	1-47E610-90-1/H-2	A	1	PL	MO	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
434	1-FCV-94-0501	TIP INDEXER BALL VLV	2	1-47E600-14/B-8	A	3/8	BA	S	C	C	Q LT/VRPIL	N/A N/A	Q O/OC
435	1-FCV-94-0502	TIP INDEXER BALL VLV	2	1-47E600-14/A-8	A	3/8	BA	S	C	C	Q LT/VRPIL	N/A N/A	Q O/OC
436	1-FCV-94-0503	TIP INDEXER BALL VLV	2	1-47E600-14/A-8	A	3/8	BA	S	C	C	Q LT/VRPIL	N/A N/A	Q O/OC
437	1-FCV-94-0504	TIP INDEXER BALL VLV	2	1-47E600-14/A-8	A	3/8	BA	S	C	C	Q LT/VRPIL	N/A N/A	Q O/OC
438	1-FCV-94-0505	TIP INDEXER BALL VLV	2	1-47E600-14/A-8	A	3/8	BA	S	C	C	Q LT/VRPIL	N/A N/A	Q O/OC

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	S/SR INTERVAL
1	2-PCV-01-0004	MS LN A RLF	1	2-47E801-1/H-7	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
2	2-PCV-01-0005	MS LN A RLF	1	2-47E801-1/H-6	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
3	2-FCV-01-0014	MS LN A INBD ISOL	1	2-47E801-1/G-5	A	26	GL	AO	O	C	Q/FS LT	RO-01 N/A	O/RO O/OC
4	2-FCV-01-0015	MS LN A OUTBD ISOL	1	2-47E801-1/G-4	A	26	GL	AO	O	C	Q/FS LT	CSDJ-04 N/A	CSD O/OC
5	2-PCV-01-0018	MS LN B RLF	1	2-47E801-1/G-8	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
6	2-PCV-01-0019	MS LN B RLF	1	2-47E801-1/G-7	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
7	2-PCV-01-0022	MS LN B RLF	1	2-47E801-1/G-6	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
8	2-PCV-01-0023	MS LN B RLF	1	2-47E801-1/G-6	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
9	2-FCV-01-0026	MS LN B INBD ISOL	1	2-47E801-1/G-5	A	26	GL	AO	O	C	Q/FS LT	RO-01 N/A	O/RO O/OC
10	2-FCV-01-0027	MS LN B OUTBD ISOL	1	2-47E801-1/G-4	A	26	GL	AO	O	C	Q/FS LT	CSDJ-04 N/A	CSD O/OC
11	2-PCV-01-0030	MS LN C RLF	1	2-47E801-1/F-8	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
12	2-PCV-01-0031	MS LN C RLF	1	2-47E801-1/F-7	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
13	2-PCV-01-0034	MS LN C RLF	1	2-47E801-1/E-6	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
14	2-FCV-01-0037	MS LN C INBD ISOL	1	2-47E801-1/E-5	A	26	GL	AO	O	C	Q/FS LT	RO-01 N/A	O/RO O/OC
15	2-FCV-01-0038	MS LN C OUTBD ISOL	1	2-47E801-1/E-4	A	26	GL	AO	O	C	Q/FS LT	CSDJ-04 N/A	CSD O/OC
16	2-PCV-01-0041	MS LN D RLF	1	2-47E801-1/E-7	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
17	2-PCV-01-0042	MS LN D RLF	1	2-47E801-1/E-6	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
18	2-FCV-01-0051	MS LN D INBD ISOL	1	2-47E801-1/E-5	A	26	GL	AO	O	C	Q/FS LT	RO-01 N/A	O/RO O/OC
19	2-FCV-01-0052	MS LN D OUTBD ISOL	1	2-47E801-1/E-4	A	26	GL	AO	O	C	Q/FS LT	CSDJ-04 N/A	CSD O/OC
20	2-FCV-01-0055	MS DRN LN INBD ISOL	1	2-47E801-1/F-5	A	3	GA	MO	C	C	Q VRPIL LT	N/A N/A N/A	Q O/2YR O/OC
21	2-FCV-01-0056	MS DRN LN OUTBD ISOL	1	2-47E801-1/F-4	A	3	GA	MO	C	C	Q VRPIL LT	N/A N/A N/A	Q O/2YR O/OC
22	2-FCV-01-0058	MS DRN TO COND ISOL	2	2-47E801-1/F-3	B	3	GL	MO	C	O	Q VRPIL LT	N/A N/A	Q O/2YR
23	2-FCV-01-0059	MS DRN TO COND ISOL	2	2-47E801-1/F-2	B	4	GA	MO	C	O	Q VRPIL LT	N/A N/A	Q O/2YR
24	2-FCV-01-0127	RFPT 2A HP STOP VLV	2	2-47E801-2/B-7	B	4	GA	HYD	O	C	Q VRPIL LT	N/A N/A	Q O/2YR
25	2-FCV-01-0135	RFPT 2B HP STOP VLV	2	2-47E801-2/B-6	B	4	GA	HYD	O	C	Q VRPIL LT	N/A N/A	Q O/2YR
26	2-FCV-01-0143	RFPT 2C HP STOP VLV	2	2-47E801-2/B-5	B	4	GA	HYD	O	C	Q VRPIL LT	N/A N/A	Q O/2YR
27	2-PCV-01-0147	MS STM SEAL ISOL	2	2-47E807-2/D-6	B	4	AN	AO	C	C	Q/FS VRPIL	CSDJ-05 N/A	CSD O/2YR
28	2-PCV-01-0151	SJAE 2A STG 1 & 2 SPLY PRESS REG	2	2-47E801-2/B-4	B	1-1/2	GA	AO	O	C	Q VRPIL	CSDJ-06 N/A	CSD O/2YR
29	2-PCV-01-0153	SJAE 2B STG 1 & 2 SPLY PRESS REG	2	2-47E801-2/B-3	B	1-1/2	GA	AO	O	C	Q VRPIL	CSDJ-06 N/A	CSD O/2YR
30	2-PCV-01-0166	SJAE 2A STG 3 SPLY PRESS REG	2	2-47E801-2/B-4	B	1-1/2	GA	AO	O	C	Q VRPIL	CSDJ-06 N/A	CSD O/2YR
31	2-PCV-01-0167	SJAE 2B STG 3 SPLY PRESS REG	2	2-47E801-2/B-3	B	1-1/2	GA	AO	O	C	Q VRPIL	CSDJ-06 N/A	CSD O/2YR
32	2-PCV-01-0179	MS LN A RLF	1	2-47E801-1/H-6	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
33	2-PCV-01-0180	MS LN D RLF	1	2-47E801-1/E-6	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
34	2-CKV-01-0742	OG PREHTR 2A SPLY CKV	2	2-47E801-2/D-2	C	2	CK	SELF	O	C	CV	N/A	CM
35	2-CKV-01-0744	OG PREHTR 2B SPLY CKV	2	2-47E801-2/C-2	C	2	CK	SELF	O	C	CV	N/A	CM
36	2-CKV-03-0554	FDWTR LN A OUTBD ISOL	1	2-47E803-1/H-6	AC	24	CK	SELF	O	C	CV/LT	N/A	CM
37	2-CKV-03-0558	FDWTR LN A INBD ISOL	1	2-47E803-5/F-6	AC	24	CK	SELF	O	O/C	CV/LT	N/A	CM
38	2-CKV-03-0568	FDWTR LN B OUTBD ISOL	1	2-47E803-1/F-6	AC	24	CK	SELF	O	C	CV/LT	N/A	CM
39	2-CKV-03-0572	FDWTR LN B INBD ISOL	1	2-47E803-5/E-6	AC	24	CK	SELF	O	O/C	CV/LT	N/A	CM
40	2-CKV-06-0822	SJAE 2B COND DRN CKV	2	2-47E805-3/G-7	C	1/2	CK	SELF	O	C	CV	N/A	CM
41	2-CKV-06-0826	SJAE 2A COND DRN CKV	2	2-47E805-3/G-6	C	1/2	CK	SELF	O	C	CV	N/A	CM
42	2-CKV-10-0506	MSRV TL PIPE A VC RLF	3	2-47E817-1/D-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
43	2-CKV-10-0507	MSRV TL PIPE B VC RLF	3	2-47E817-1/D-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
44	2-CKV-10-0508	MSRV TL PIPE C VC RLF	3	2-47E817-1/D-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
45	2-CKV-10-0509	MSRV TL PIPE D VC RLF	3	2-47E817-1/D-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
46	2-CKV-10-0510	MSRV TL PIPE E VC RLF	3	2-47E817-1/D-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
47	2-CKV-10-0511	MSRV TL PIPE F VC RLF	3	2-47E817-1/D-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
48	2-CKV-10-0512	MSRV TL PIPE G VC RLF	3	2-47E817-1/D-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
49	2-CKV-10-0513	MSRV TL PIPE H VC RLF	3	2-47E817-1/D-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
50	2-CKV-10-0514	MSRV TL PIPE J VC RLF	3	2-47E817-1/D-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
51	2-CKV-10-0515	MSRV TL PIPE K VC RLF	3	2-47E817-1/D-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
52	2-CKV-10-0516	MSRV TL PIPE L VC RLF	3	2-47E817-1/D-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
53	2-CKV-10-0519	MSRV TL PIPE M VC RLF	3	2-47E817-1/D-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
54	2-CKV-10-0520	MSRV TL PIPE N VC RLF	3	2-47E817-1/D-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
55	2-CKV-10-0521	MSRV TL PIPE A VC RLF	3	2-47E817-1/D-3	C	10	CK	SELF	C	O	CV	N/A	CM
56	2-CKV-10-0522	MSRV TL PIPE B VC RLF	3	2-47E817-1/D-3	C	10	CK	SELF	C	O	CV	N/A	CM
57	2-CKV-10-0523	MSRV TL PIPE C VC RLF	3	2-47E817-1/D-3	C	10	CK	SELF	C	O	CV	N/A	CM
58	2-CKV-10-0524	MSRV TL PIPE D VC RLF	3	2-47E817-1/D-3	C	10	CK	SELF	C	O	CV	N/A	CM

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	S/SR INTERVAL
59	2-CKV-10-0525	MSRV TL PIPE E VC RLF	3	2-47E817-1/D-3	C	10	CK	SELF	C	O	CV	N/A	CM
60	2-CKV-10-0526	MSRV TL PIPE F VC RLF	3	2-47E817-1/D-3	C	10	CK	SELF	C	O	CV	N/A	CM
61	2-CKV-10-0527	MSRV TL PIPE G VC RLF	3	2-47E817-1/D-3	C	10	CK	SELF	C	O	CV	N/A	CM
62	2-CKV-10-0528	MSRV TL PIPE H VC RLF	3	2-47E817-1/D-3	C	10	CK	SELF	C	O	CV	N/A	CM
63	2-CKV-10-0529	MSRV TL PIPE J VC RLF	3	2-47E817-1/D-3	C	10	CK	SELF	C	O	CV	N/A	CM
64	2-CKV-10-0530	MSRV TL PIPE K VC RLF	3	2-47E817-1/D-3	C	10	CK	SELF	C	O	CV	N/A	CM
65	2-CKV-10-0531	MSRV TL PIPE L VC RLF	3	2-47E817-1/D-3	C	10	CK	SELF	C	O	CV	N/A	CM
66	2-CKV-10-0532	MSRV TL PIPE M VC RLF	3	2-47E817-1/D-3	C	10	CK	SELF	C	O	CV	N/A	CM
67	2-CKV-10-0533	MSRV TL PIPE N VC RLF	3	2-47E817-1/D-3	C	10	CK	SELF	C	O	CV	N/A	CM
68	2-FCV-23-0034	RHR HTX A OUTLT	3	2-47E858-1/E-7	B	12	GL	MO	C	O	Q/VRPIL	N/A	Q
69	2-FCV-23-0040	RHR HTX C OUTLT	3	2-47E858-1/H-7	B	12	GL	MO	C	O	Q/VRPIL	N/A	Q
70	2-FCV-23-0046	RHR HTX B OUTLT	3	2-47E858-1/F-4	B	12	GL	MO	C	O	Q/VRPIL	N/A	Q
71	2-FCV-23-0052	RHR HTX D OUTLT	3	2-47E858-1/H-4	B	12	GL	MO	C	O	Q/VRPIL	N/A	Q
72	2-FCV-23-0057	STANDBY COOLANT ISOL	3	2-47E858-1/E-3	B	10	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
73	2-RFV-23-0509	RHR HTX A SPLY RLF	3	2-47E858-1/E-6	C	1	RV	SELF	C	O	RV	N/A	COND
74	2-RFV-23-0516	RHR HTX A TUBE RLF	3	2-47E858-1/E-6	C	1	RV	SELF	C	O	RV	N/A	COND
75	2-RFV-23-0529	RHR HTX B SPLY RLF	3	2-47E858-1/E-4	C	1	RV	SELF	C	O	RV	N/A	COND
76	2-RFV-23-0536	RHR HTX B TUBE RLF	3	2-47E858-1/F-5	C	1	RV	SELF	C	O	RV	N/A	COND
77	2-RFV-23-0549	RHR HTX C SPLY RLF	3	2-47E858-1/E-7	C	1	RV	SELF	C	O	RV	N/A	COND
78	2-RFV-23-0555	RHR HTX C TUBE RLF	3	2-47E858-1/H-6	C	1	RV	SELF	C	O	RV	N/A	COND
79	2-RFV-23-0568	RHR HTX D SPLY RLF	3	2-47E858-1/E-4	C	1	RV	SELF	C	O	RV	N/A	COND
80	2-RFV-23-0574	RHR HTX D TUBE RLF	3	2-47E858-1/H-5	C	1	RV	SELF	C	O	RV	N/A	COND
81	2-CKV-23-0579	RHR HTX A INLT CK	3	2-47E858-1/E-6	C	16	CK	SELF	C	O	CV	N/A	CM
82	2-CKV-23-0580	RHR HTX B INLT CK	3	2-47E858-1/E-4	C	16	CK	SELF	C	O	CV	N/A	CM
83	2-CKV-23-0581	RHR HTX C INLT CK	3	2-47E858-1/E-7	C	16	CK	SELF	C	O	CV	N/A	CM
84	2-CKV-23-0582	RHR HTX D INLT CK	3	2-47E858-1/E-4	C	16	CK	SELF	C	O	CV	N/A	CM
85	2-CKV-24-886	RCW TO PNL 2-25-340	3	2-47E844-2/A-6	C	1	CK	SELF	C	C	CV	N/A	CM
86	2-CKV-24-891	RCW TO PNL 2-25-341	3	2-47E844-2/A-5	C	1	CK	SELF	C	C	CV	N/A	CM
87	2-FCV-32-0062	DCA CMPR SUCT ISOL	2	2-47E610-32-2/C-7	A	3	PL	AO	O	C	Q/FS LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
88	2-FCV-32-0063	DCA CMPR SUCT ISOL	2	2-47E610-32-2/C-7	A	3	PL	AO	O	C	Q/FS LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
89	2-CKV-32-0336	DCA CNTMT ISOL	2	2-47E2847-5/D-4	AC	1	CK	SELF	O/C	C	CV/LT	N/A	CM
90	2-CKV-32-2163	DCA CNTMT ISOL	2	2-47E2847-9/G-7	AC	1	CK	SELF	O/C	C	CV/LT	N/A	CM
91	2-CKV-32-2516	DCA CNTMT ISOL	2	2-47E2847-9/C-3	AC	3/4	CK	SELF	O/C	C	CV/LT	N/A	CM
92	2-CKV-32-2521	DCA CNTMT ISOL	2	2-47E2847-5/C-4	AC	3/4	CK	SELF	O/C	C	CV/LT	N/A	CM
93	2-FCV-43-0013	RECIRC CNTMT ISOL	1	2-47E610-43-1/H-4	A	3/4	GL	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
94	2-FCV-43-0014	RECIRC CNTMT ISOL	1	2-47E610-43-1/G-4	A	3/4	GL	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
95	2-FSV-43-0040	PASS CNTMT ISOL	N	2-47E867-3/F-2	A	3/4	GL	S	C	C	LT VRPIL	N/A N/A	O/OC O/2YR
96	2-FSV-43-0042	PASS CNTMT ISOL	N	2-47E867-3/F-2	A	3/4	GL	S	C	C	LT VRPIL	N/A N/A	O/OC O/2YR
97	2-FSV-43-0050	PASS CNTMT ISOL	2	2-47E867-3/G-2	A	3/4	GL	S	C	C	LT VRPIL	N/A N/A	O/OC O/2YR
98	2-FSV-43-0056	PASS CNTMT ISOL	2	2-47E867-3/G-2	A	3/4	GL	S	C	C	LT VRPIL	N/A N/A	O/OC O/2YR
99	2-FSV-43-0070	PASS CNTMT ISOL	1	2-47E867-3/B-2	A	3/4	GL	S	C	C	LT VRPIL	N/A N/A	O/OC O/2YR
100	2-FCV-63-0008A	SLC PMP A INJ	2	2-47E854-1/F-6	D	1.5	GA	X	C	O	DT	N/A	E/RO
101	2-FCV-63-0008B	SLC PMP B INJ	2	2-47E854-1/E-6	D	1.5	GA	X	C	O	DT	N/A	E/RO
102	2-RFV-63-0512	SLC PMP A RLF	2	2-47E854-1/E-5	C	1	RV	SELF	C	O	RV	N/A	O/OC
103	2-RFV-63-0513	SLC PMP B RLF	2	2-47E854-1/E-4	C	1	RV	SELF	C	O	RV	N/A	O/OC
104	2-CKV-63-0514	SLC PMP A DISCH CK	2	2-47E854-1/E-5	C	1.5	CK	SELF	C	O	CV	N/A	CM
105	2-CKV-63-0516	SLC PMP B DISCH CK	2	2-47E854-1/E-4	C	1.5	CK	SELF	C	O	CV	N/A	CM
106	2-CKV-63-0525	SLC CNTMT ISOL	1	2-47E854-1/E-7	AC	1.5	CK	SELF	C	O/C	CV	N/A	CM
107	2-CKV-63-0526	SLC CNTMT ISOL	1	2-47E854-1/D-7	AC	1.5	CK	SELF	C	O/C	CV	N/A	CM
108	2-FCV-64-0020	PSC VC RLF ISOL	2	2-47E2865-12/B-6	A	20	BF	AO	C	O	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
109	2-FCV-64-0021	PSC VC RLF ISOL	2	2-47E2865-12/B-6	A	20	BF	AO	C	O	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
110	2-FCV-64-0029	DW EXH CNTMT ISOL	2	2-47E2865-12/E-4	A	18	BF	AO	C	C	LT VRPIL	N/A N/A	O/OC O/2YR
111	2-FCV-64-0030	PSC VC RLF ISOL	2	2-47E2865-12/E-4	A	18	BF	AO	C	C	LT VRPIL	N/A N/A	O/OC O/2YR
112	2-FCV-64-0031	DW SBTG INBD CNTMT ISOL	2	2-47E2865-12/E-4	A	2	BF	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
113	2-FCV-64-0032	PSC EXH INBD CNTMT ISOL	2	2-47E2865-12/B-3	A	18	BF	AO	C	C	LT VRPIL	N/A N/A	O/OC O/2YR
114	2-FCV-64-0033	PSC EXH INBD CNTMT ISOL	2	2-47E2865-12/C-3	A	18	BF	AO	C	C	LT VRPIL	N/A N/A	O/OC O/2YR

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	S/SR INTERVAL
115	2-FCV-64-0034	PSC SBTG INBD CNTMT ISOL	2	2-47E2865-12/B-3	A	2	BF	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
116	2-FCV-64-0139	DCA CMP SUCT CNTMT ISOL	2	2-47E2865-12/G-2	A	3	GL	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
117	2-FCV-64-0140	DCA CMP DISCH CNTMT ISOL	2	2-47E2865-12/H-2	A	2	GL	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
118	2-FCV-64-0221	PSC VENT TO PLANT STCK ISOL	2	2-47E2865-12/A-8	A	14	BF	AO	C	O/C	Q/FS LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
119	2-FCV-64-0222	PSC VENT TO PLANT STCK ISOL	2	2-47E2865-12/A-8	A	14	BF	AO	C	O/C	Q/FS LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
120	2-CKV-64-0800	PSC VC RLF CK	2	2-47E2865-12/B-6	AC	20	CK	SELF	C	O/C	Q/LT	N/A	CM
121	2-CKV-64-0801	PSC VC RLF CK	2	2-47E2865-12/B-6	AC	20	CK	SELF	C	O/C	Q/LT	N/A	CM
122	2-FCV-67-0050	EECW N HDR TO RBCCW HTX	3	2-47E859-1/G-4	B	8	BA	AO	C	C	Q VRPIL	N/A N/A	Q O/2YR
123	2-FCV-67-0051	EECW S HDR TO RBCCW HTX	3	2-47E859-1/C-5	B	8	BA	AO	C	C	Q VRPIL	N/A N/A	Q O/2YR
124	2-CKV-67-0541	LP I CS CLR S HDR SPLY	3	2-47E859-1/E-8	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
125	2-CKV-67-0542	LP I CS CLR S HDR SPLY	3	2-47E859-1/E-8	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
126	2-CKV-67-0558	LP I RHR CLR S HDR SPLY	3	2-47E859-1/B-7	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
127	2-CKV-67-0559	LP I RHR CLR S HDR SPLY	3	2-47E859-1/C-7	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
128	2-CKV-67-0584	LP II CS CLR S HDR SPLY	3	2-47E859-1/F-5	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
129	2-CKV-67-0585	LP II CS CLR S HDR SPLY	3	2-47E859-1/F-5	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
130	2-CKV-67-0600	LP II RHR CLR S HDR SPLY	3	2-47E859-1/C-3	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
131	2-CKV-67-0601	LP II RHR CLR S HDR SPLY	3	2-47E859-1/C-3	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
132	2-CKV-67-0638	LP I RHR CLR N HDR SPLY	3	2-47E859-1/F-7	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
133	2-CKV-67-0639	LP I RHR CLR N HDR SPLY	3	2-47E859-1/C-7	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
134	2-CKV-67-0648	LP I CS CLR N HDR SPLY	3	2-47E859-1/F-6	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
135	2-CKV-67-0649	LP I CS CLR N HDR SPLY	3	2-47E859-1/F-6	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
136	2-CKV-67-0656	LP II CS CLR N HDR SPLY	3	2-47E859-1/F-4	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
137	2-CKV-67-0657	LP II CS CLR N HDR SPLY	3	2-47E859-1/F-4	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
138	2-CKV-67-0659	LP II RHR CLR N HDR SPLY	3	2-47E859-1/F-3	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
139	2-CKV-67-0660	LP II RHR CLR N HDR SPLY	3	2-47E859-1/C-3	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
140	2-CKV-67-0838	PNL 25-340 SPLY CK	3	2-47E859-1/F-2	C	1	CK	SELF	O/C	O	CV	N/A	CM
141	2-CKV-67-0839	PNL 25-340 SPLY CK	3	2-47E859-1/F-2	C	1	CK	SELF	O/C	O	CV	N/A	CM
142	2-CKV-67-0843	PNL 25-341 SPLY CK	3	2-47E859-1/F-2	C	1	CK	SELF	O/C	O	CV	N/A	CM
143	2-CKV-67-0844	PNL 25-341 SPLY CK	3	2-47E859-1/F-2	C	1	CK	SELF	O/C	O	CV	N/A	CM
144	2-CKV-68-0003	RECIRC PMP A DISCH	1	2-47E817-1/E-6	B	28	GA	MO	O	C	Q VRPIL	CSDJ-01 N/A	CSD O/2YR
145	2-FCV-68-0079	RECIRC PMP B DISCH	1	2-47E817-1/D-4	B	28	GA	MO	O	C	Q VRPIL	CSDJ-01 N/A	CSD O/2YR
146	2-CKV-68-0508	RECIRC PMP SEAL ISOL	1	2-47E817-1/B-6	AC	3/4	CK	SELF	O	C	CV/LT	N/A	CM
147	2-CKV-68-0523	RECIRC PMP SEAL ISOL	1	2-47E817-1/B-3	AC	3/4	CK	SELF	O	C	CV/LT	N/A	CM
148	2-CKV-68-0550	RECIRC PMP SEAL ISOL	1	2-47E817-1/B-7	AC	3/4	CK	SELF	O	C	CV/LT	N/A	CM
149	2-CKV-68-0555	RECIRC PMP SEAL ISOL	1	2-47E817-1/B-3	AC	3/4	CK	SELF	O	C	CV/LT	N/A	CM
150	2-FCV-69-0001	RWCU INBD CNTMT ISOL	1	2-47E810-1/G-7	A	6	GA	MO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
151	2-FCV-69-0002	RWCU OUTBD CNTMT ISOL	1	2-47E810-1/G-6	A	6	GA	MO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
152	2-CKV-69-0630	RWCU TO FDWTR ISOL	1	2-47E810-1/E-6	AC	4	CK	SELF	O	C	CV/LT	N/A	CM
153	2-FCV-70-0047	RBCCW RTN CNTMT ISOL	2	2-47E822-1/G-4	A	8	GA	MO	O	C	Q LT VRPIL	CSDJ-02 N/A N/A	CSD O/OC O/2YR
154	2-CKV-70-0506	RBCCW SPLY CNTMT ISOL	2	2-47E822-1/F-4	AC	8	CK	SELF	O	C	CV/LT	N/A	CM
155	2-FCV-71-0002	RCIC STM LN INBD CNTMT ISOL	1	2-47E813-1/G-7	A	3	GA	MO	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
156	2-FCV-71-0003	RCIC STM LN OUTBD CNTMT ISOL	1	2-47E813-1/G-6	A	3	GA	MO	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
157	2-FCV-71-0006A	RCIC STM LN TO COND DRN	2	2-47E813-1/E-1	B	1	GA	AO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
158	2-FCV-71-0006B	RCIC STM LN TO COND DRN	2	2-47E813-1/E-1	B	1	GA	AO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
159	2-FCV-71-0007A	RCIC CND PMP DISCH ISOL	2	2-47E813-1/A-3	B	1	GA	AO	C	C	Q VRPIL	N/A N/A	Q O/2YR
160	2-FCV-71-0008	RCIC TRB STM SPLY	2	2-47E813-1/F-1	B	4	GL	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
161	2-FCV-71-0009	RCIC TRB STOP VLV	2	2-47E813-1/F-2	B	3	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
162	2-RPD-71-0011A	RCIC TRB EXH RP DISC	2	2-47E813-1/E-3	D	8	RD	SELF	C	O	VI	N/A	O/5YR
163	2-SHV-71-0014	RCIC TRB EXHAUST VLV	2	2-47E813-1/D-6	AC	8	SC	H/SELF	O	O/C	CV/VRPIL L LT	N/A	CM

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	S/SR INTERVAL
164	2-FCV-71-0017	PSC TO RCIC INBD CNTMT ISOL	2	2-47E813-1/B-6	A	6	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
165	2-FCV-71-0018	PSC TO RCIC OUTBD CNTMT ISOL	2	2-47E813-1/G-4	A	6	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
166	2-RFV-71-0019	RCIC PMP SUCT RLF	2	2-47E813-1/G-4	C	1	RV	SELF	C	O	RV	N/A	COND
167	2-FCV-71-0025	RCIC LUBE OIL CLG WTR SPLY	2	2-47E813-1/B-4	B	2	GL	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
168	2-SHV-71-0032	RCIC COND VC PMP DISCH	2	2-47E813-1/C-6	AC	2	SC	H/SELF	C	C	CV/VRPIL LT	N/A	CM
169	2-FCV-71-0034	RCIC PMP MN FL	2	2-47E813-1/E-5	A	2	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
170	2-FCV-71-0037	RCIC INJ OUTBD ISOL	2	2-47E813-1/F-5	B	6	GA	MO	O	O	Q VRPIL	N/A N/A	Q O/2YR
171	2-FCV-71-0038	RCIC PMP TST RTN TO CST	2	2-47E813-1/G-5	B	4	GL	MO	C	C	Q VRPIL	N/A N/A	Q O/2YR
172	2-FCV-71-0039	RCIC INJ INBD ISOL	2	2-47E813-1/F-6	B	6	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
173	2-FCV-71-0040	RCIC TSTABLE CK	1	2-47E813-1/F-6	AC	6	CK	AO/SELF	C	O/C	CV/VRPIL L LT	N/A	CM
174	2-CKV-71-0499	CST/RCIC PMP INLT	2	2-47E813-1/G-4	C	6	CK	SELF	C	O/C	CV	N/A	CM
175	2-CKV-71-0508	PSC/RCIC PMP INLT	2	2-47E813-1/B-5	C	6	CK	SELF	C	O	CV	N/A	CM
176	2-RFV-71-0543	RCIC COND RLF	2	2-47E813-1/B-4	C	1	RV	SELF	C	O	RV	N/A	COND
177	2-CKV-71-0547	RCIC PMP MN FL CK	2	2-47E813-1/E-5	AC	2	CK	SELF	C	O/C	CV/LT	N/A	CM
178	2-CKV-71-0580	RCIC TRB EXH CK	2	2-47E813-1/D-6	AC	10	CK	SELF	C	O/C	CV/LT	N/A	CM
179	2-CKV-71-0589	RCIC COND PMP CK	2	2-47E813-1/B-3	C	2	CK	SELF	C	C	CV	N/A	CM
180	2-CKV-71-0592	RCIC VC PMP DISCH	2	2-47E813-1/C-5	AC	2	CK	SELF	C	C	CV/LT	N/A	CM
181	2-CKV-71-0597	RCIC TRB EXH VC RLF	2	2-47E813-1/D-6	C	2	CK	SELF	C	O	CV	N/A	CM
182	2-CKV-71-0598	RCIC TRB EXH VC RLF	2	2-47E813-1/D-7	C	2	CK	SELF	C	O	CV	N/A	CM
183	2-CKV-71-0599	RCIC TRB EXH VC RLF	2	2-47E813-1/D-6	C	2	CK	SELF	C	O	CV	N/A	CM
184	2-CKV-71-0600	RCIC TRB EXH VC RLF	2	2-47E813-1/D-7	C	2	CK	SELF	C	O	CV	N/A	CM
185	2-FCV-73-0002	HPCI STM LN INBD CNTMT ISOL	1	2-47E812-1/G-7	A	10	GA	MO	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
186	2-FCV-73-0003	HPCI STM LN OUTBD CNTMT ISOL	1	2-47E812-1/G-6	A	10	GA	MO	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
187	2-FCV-73-0006A	HPCI STM LN TO COND DRN	2	2-47E812-1/E-2	B	1	GA	AO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
188	2-FCV-73-0006B	HPCI STM LN TO COND DRN	2	2-47E812-1/E-2	B	1	GA	AO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
189	2-FCV-73-0016	HPCI TRB STM SPLY VLV	2	2-47E812-1/G-3	B	10	GA	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
190	2-FCV-73-0018	HPCI TRB STOP VLV	2	2-47E812-1/G-3	B	10	GA	E/H	C	O	Q/FS VRPIL	N/A N/A	Q O/2YR
191	2-ISV-73-0023	HPCI TRB EXHAUST VLV	2	2-47E812-1/D-7	AC	16	SC	H/SELF	O	O/C	CV/VRPIL L LT	N/A	CM
192	2-ISV-73-0024	HPCI EXH COND POT DISCH	2	2-47E812-1/D-6	AC	2	SC	H/SELF	C	C	CV/LT	N/A	CM
193	2-FCV-73-0026	PSC TO HPCI INBD ISOL	2	2-47E812-1/B-6	A	16	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
194	2-FCV-73-0027	PSC TO HPCI OUTBD ISOL	2	2-47E812-1/G-5	A	16	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
195	2-FCV-73-0030	HPCI PMP MN FL	2	2-47E812-1/D-5	A	4	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
196	2-FCV-73-0034	HPCI INJ OUTBD ISOL	2	2-47E812-1/F-6	B	14	GA	MO	O	O	Q VRPIL	N/A N/A	Q O/2YR
197	2-FCV-73-0035	HPCI PMP TST RTN TO CST	2	2-47E812-1/F-6	B	10	GL	MO	C	C	Q VRPIL	N/A N/A	Q O/2YR
198	2-FCV-73-0040	HPCI PMP SUCTION ISOL	2	2-47E812-1/H-5	B	14	GA	MO	O	C	Q VRPIL	N/A N/A	Q O/2YR
199	2-FCV-73-0044	HPCI INJ INBD ISOL	2	2-47E812-1/F-6	B	14	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
200	2-FCV-73-0045	HPCI TSTABLE CK	1	2-47E812-1/E-6	AC	14	CK	AO/SELF	C	O/C	CV/VRPIL L LT	N/A	CM
201	2-FCV-73-0081	2-FCV-73-3 BYPASS	1	2-47E812-1/G-6	A	1	GA	MO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
202	2-CKV-73-0505	CST/HPCI PMP INLT	2	2-47E812-1/H-5	C	14	CK	SELF	C	O/C	CV	N/A	CM
203	2-RFV-73-0506	HPCI PMP SUCT RLF	2	2-47E812-1/G-4	C	1	RV	SELF	C	O	RV	N/A	COND
204	2-CKV-73-0517	PSC/HPCI PMP INLT	2	2-47E812-1/B-6	C	16	CK	SELF	C	O	CV	N/A	CM
205	2-CKV-73-0559	HPCI PMP MN FL CHECK	2	2-47E812-1/D-5	AC	4	CK	SELF	C	O/C	CV/LT	N/A	CM
206	2-RFV-73-0574	HPCI COND RLF	2	2-47E812-1/C-4	C	1	RV	SELF	C	O	RV	N/A	COND
207	2-CKV-73-0603	HPCI TRB EXH CHECK	2	2-47E812-1/D-7	AC	16	CK	SELF	C	O/C	CV/LT	N/A	CM

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	S/SR INTERVAL
208	2-CKV-73-0609	HPCI TRB EXH DRN CHECK	2	2-47E812-1/D-6	AC	2	CK	SELF	C	C	CV/LT	N/A	CM
209	2-CKV-73-0625	HPCI GLAND SL RTN	2	2-47E812-1/B-4	C	2	CK	SELF	C	C	CV	N/A	CM
210	2-CKV-73-0633	HPCI TRB EXH VC RLF	2	2-47E812-1/D-7	C	2	CK	SELF	C	O	CV	N/A	CM
211	2-CKV-73-0634	HPCI TRB EXH VC RLF	2	2-47E812-1/D-7	C	2	CK	SELF	C	O	CV	N/A	CM
212	2-CKV-73-0635	HPCI TRB EXH VC RLF	2	2-47E812-1/E-7	C	2	CK	SELF	C	O	CV	N/A	CM
213	2-CKV-73-0636	HPCI TRB EXH VC RLF	2	2-47E812-1/E-7	C	2	CK	SELF	C	O	CV	N/A	CM
214	2-RPD-73-0729	HPCI TRB RP DISC	2	2-47E812-1/D-4	D	16	RD	SELF	C	O	VI	N/A	O/5YR
215	2-FCV-74-0001	RHR PMP A PSC SUCT	2	2-47E811-1/B-5	B	24	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
216	2-FCV-74-0002	RHR PMP A SD CLG SUCT	2	2-47E811-1/C-6	B	20	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
217	2-FCV-74-0007	RHR LP I MN FL	2	2-47E811-1/D-6	B	4	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
218	2-FCV-74-0012	RHR PMP C PSC SUCT	2	2-47E811-1/D-5	B	24	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
219	2-FCV-74-0013	RHR PMP C SD CLG SUCT	2	2-47E811-1/D-6	B	20	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
220	2-FCV-74-0024	RHR PMP B PSC SUCT	2	2-47E811-1/B-4	B	24	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
221	2-FCV-74-0025	RHR PMP B SD CLG SUCT	2	2-47E811-1/C-4	B	20	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
222	2-FCV-74-0030	RHR LP II MN FL	2	2-47E811-1/D-3	B	4	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
223	2-FCV-74-0035	RHR PMP D PSC SUCT	2	2-47E811-1/D-4	B	24	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
224	2-FCV-74-0036	RHR PMP D SD CLG SUCT	2	2-47E811-1/D-4	B	20	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
225	2-FCV-74-0047	RHR SD CLG OUTBD ISOL	1	2-47E811-1/E-5	A	20	GA	MO	C	O/C	Q LT VRPIL	CSDJ-03 N/A N/A	CSD O/OC O/2YR
226	2-FCV-74-0048	RHR SD CLG INBD ISOL	1	2-47E811-1/F-5	A	20	GA	MO	C	O/C	Q LT VRPIL	CSDJ-03 N/A N/A	CSD O/OC O/2YR
227	2-FCV-74-0052	RHR LP I THROTTLE	2	2-47E811-1/F-7	B	24	AN	MO	O	O	Q VRPIL	N/A N/A	Q O/2YR
228	2-FCV-74-0053	RHR LP I INJ	1	2-47E811-1/F-6	A	24	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
229	2-FCV-74-0054	RHR LP I TSTABLE CK	1	2-47E811-1/F-6	AC	24	CK	AO/SELF	C	O/C	CV/LT	N/A	CM
230	2-FCV-74-0057	RHR LP I PSC RTN	2	2-47E811-1/G-8	A	18	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
231	2-FCV-74-0058	RHR LP I PSC SPRAY	2	2-47E811-1/F-8	A	4	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
232	2-FCV-74-0059	RHR LP I PMP TST RTN	2	2-47E811-1/F-8	A	12	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
233	2-FCV-74-0060	RHR LP I CNTMT SPRAY OUTBD ISOL	2	2-47E811-1/G-6	A	12	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
234	2-FCV-74-0061	RHR LP I CNTMT SPRAY INBD ISOL	2	2-47E811-1/G-5	A	12	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
235	2-FCV-74-0066	RHR LP II THROTTLE	2	2-47E811-1/F-3	B	24	AN	MO	O	O	Q VRPIL	N/A N/A	Q O/2YR
236	2-FCV-74-0067	RHR LP II INJ	1	2-47E811-1/F-3	A	24	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
237	2-FCV-74-0068	RHR LP II TSTABLE CK	1	2-47E811-1/F-3	AC	24	CK	AO/SELF	C	O/C	CV/LT	N/A	CM
238	2-FCV-74-0071	RHR LP II PSC RTN	2	2-47E811-1/G-2	A	18	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
239	2-FCV-74-0072	RHR LP II PSC SPRAY	2	2-47E811-1/F-2	A	4	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
240	2-FCV-74-0073	RHR LP II PMP TST RTN	2	2-47E811-1/F-2	A	12	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
241	2-FCV-74-0074	RHR LP II CNTMT SPRAY OUTBD ISOL	2	2-47E811-1/G-4	A	12	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
242	2-FCV-74-0075	RHR LP II CNTMT SPRAY INBD ISOL	2	2-47E811-1/G-5	A	12	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
243	2-FCV-74-0096	RHR PMP A SUCT XTIE	2	2-47E811-1/C-5	B	14	GA	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
244	2-FCV-74-0097	RHR PMP C SUCT XTIE	2	2-47E811-1/C-5	B	14	GA	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
245	2-FCV-74-0098	RHR PMP B SUCT XTIE	2	2-47E811-1/C-4	B	14	GA	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	S/SR INTERVAL
246	2-FCV-74-0099	RHR PMP D SUCT XTIE	2	2-47E811-1/C-4	B	14	GA	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
247	2-FCV-74-0100	RHR HTX A-C XTIE TO UI B-D RHR HTX	2	2-47E811-1/C-8	B	10	GA	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
248	2-FCV-74-0101	RHR HTX B-D DISCH XTIE	2	2-47E811-1/C-1	B	10	GA	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
249	2-RFV-74-0509A	RHR PMP A SUCT RLF	2	2-47E811-1/B-6	C	1	RV	SELF	C	O	RV	N/A	COND
250	2-RFV-74-0509B	RHR PMP B SUCT RLF	2	2-47E811-1/C-3	C	1	RV	SELF	C	O	RV	N/A	COND
251	2-RFV-74-0509C	RHR PMP C SUCT RLF	2	2-47E811-1/D-6	C	1	RV	SELF	C	O	RV	N/A	COND
252	2-RFV-74-0509D	RHR PMP D SUCT RLF	2	2-47E811-1/D-4	C	1	RV	SELF	C	O	RV	N/A	COND
253	2-CKV-74-0559A	RHR PMP A DISCH CK	2	2-47E811-1/B-7	C	20	CK	SELF	C	O/C	CV	N/A	Q
254	2-CKV-74-0559B	RHR PMP B DISCH CK	2	2-47E811-1/B-3	C	20	CK	SELF	C	O/C	CV	N/A	Q
255	2-CKV-74-0559C	RHR PMP C DISCH CK	2	2-47E811-1/D-7	C	20	CK	SELF	C	O/C	CV	N/A	Q
256	2-CKV-74-0559D	RHR PMP D DISCH CK	2	2-47E811-1/D-3	C	20	CK	SELF	C	O/C	CV	N/A	Q
257	2-CKV-74-0560A	RHR PMP A MN FLW	2	2-47E811-1/B-6	C	3	CK	SELF	C	O/C	CV	N/A	CM
258	2-CKV-74-0560B	RHR PMP B MN FLW	2	2-47E811-1/B-3	C	3	CK	SELF	C	O/C	CV	N/A	CM
259	2-CKV-74-0560C	RHR PMP C MN FLW	2	2-47E811-1/D-6	C	3	CK	SELF	C	O/C	CV	N/A	CM
260	2-CKV-74-0560D	RHR PMP D MN FLW	2	2-47E811-1/D-3	C	3	CK	SELF	C	O/C	CV	N/A	CM
261	2-RFV-74-0578A	RHR HTX A RLF	2	2-47E811-1/B-7	C	1	RV	SELF	C	O	RV	N/A	COND
262	2-RFV-74-0578B	RHR HTX B RLF	2	2-47E811-1/B-2	C	1	RV	SELF	C	O	RV	N/A	COND
263	2-RFV-74-0578C	RHR HTX C RLF	2	2-47E811-1/C-7	C	1	RV	SELF	C	O	RV	N/A	COND
264	2-RFV-74-0578D	RHR HTX D RLF	2	2-47E811-1/D-2	C	1	RV	SELF	C	O	RV	N/A	COND
265	2-RFV-74-0587A	RHR LP I DISCH RLF	2	2-47E811-1/G-7	C	1	RV	SELF	C	O	RV	N/A	COND
266	2-RFV-74-0587B	RHR LP II DISCH RLF	2	2-47E811-1/G-3	C	1	RV	SELF	C	O	RV	N/A	COND
267	2-RFV-74-0659	RHR SD CLG SPLY RLF	2	2-47E811-1/E-5	C	1	RV	SELF	C	O	RV	N/A	COND
268	2-CKV-74-0661	RHR TRCV	1	2-47E811-1/F-5	AC	3/4	CK	SELF	C	O/C	CV/LT	N/A	CM
269	2-CKV-74-0662	RHR TRCV	1	2-47E811-1/F-5	AC	3/4	CK	SELF	C	O/C	CV/LT	N/A	CM
270	2-HCV-74-0722	PSC DRN ISOL	2	2-47E811-1/E-4	A	8	GA	H	C	C	LT	N/A	O/O/C
271	2-CKV-74-0792	RHR LP I KP FILL CK	2	2-47E811-1/H-7	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
272	2-CKV-74-0802	RHR LP II KP FILL CK	2	2-47E811-1/H-3	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
273	2-CKV-74-0803	RHR LP I KP FILL CK	2	2-47E811-1/H-3	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
274	2-CKV-74-0804	RHR LP II KP FILL CK	2	2-47E811-1/H-6	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
275	2-FCV-75-0009	CS LP I MN FL	2	2-47E814-1/F-5	B	3	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
276	2-FCV-75-0022	CS LP I PMP TST	2	2-47E814-1/F-5	B	10	GL	MO	C	C	Q VRPIL	N/A N/A	Q O/2YR
277	2-FCV-75-0023	CS LP I INJ	2	2-47E814-1/F-6	B	12	GA	MO	O	O	Q VRPIL	N/A N/A	Q O/2YR
278	2-FCV-75-0025	CS LP I INJ	1	2-47E814-1/F-6	A	12	GA	MO	C	O	Q LT VRPIL	N/A N/A N/A	Q O/O/C O/2YR
279	2-FCV-75-0026	CS LP I TSTABLE CK	1	2-47E814-1/F-7	AC	12	CK	SELF	C	O/C	CV/LT	N/A	CM
280	2-FCV-75-0037	CS LP II MN FL	2	2-47E814-1/F-4	B	3	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
281	2-FCV-75-0050	CS LP II PMP TST	2	2-47E814-1/F-4	B	10	GL	MO	C	C	Q VRPIL	N/A N/A	Q O/2YR
282	2-FCV-75-0051	CS LP II INJ	2	2-47E814-1/G-6	B	12	GA	MO	O	O	Q VRPIL	N/A N/A	Q O/2YR
283	2-FCV-75-0053	CS LP II INJ	1	2-47E814-1/G-6	A	12	GA	MO	C	O	Q LT VRPIL	N/A N/A N/A	Q O/O/C O/2YR
284	2-FCV-75-0054	CS LP II TSTABLE CK	1	2-47E814-1/G-7	AC	12	CK	SELF	C	O/C	CV/LT	N/A	CM
285	2-FCV-75-0057	CS DRN PMP A INBD ISOL	2	2-47E814-1/B-4	A	3	GL	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/O/C O/2YR
286	2-FCV-75-0058	CS DRN PMP A OUTBD ISOL	2	2-47E814-1/B-5	A	3	GL	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/O/C O/2YR
287	2-RFV-75-0507A	CS PMP A SUCT RLF	2	2-47E814-1/C-4	C	1	RV	SELF	C	O	RV	N/A	COND
288	2-RFV-75-0507B	CS PMP B SUCT RLF	2	2-47E814-1/C-2	C	1	RV	SELF	C	O	RV	N/A	COND
289	2-RFV-75-0507C	CS PMP C SUCT RLF	2	2-47E814-1/C-6	C	1	RV	SELF	C	O	RV	N/A	COND
290	2-RFV-75-0507D	CS PMP D SUCT RLF	2	2-47E814-1/C-4	C	1	RV	SELF	C	O	RV	N/A	COND
291	2-CKV-75-0537A	CS PMP A DISCH CK	2	2-47E814-1/D-4	C	12	CK	SELF	C	O	CV	N/A	Q
292	2-CKV-75-0537B	CS PMP B DISCH CK	2	2-47E814-1/D-3	C	12	CK	SELF	C	O	CV	N/A	Q
293	2-CKV-75-0537C	CS PMP C DISCH CK	2	2-47E814-1/D-6	C	12	CK	SELF	C	O	CV	N/A	Q
294	2-CKV-75-0537D	CS PMP D DISCH CK	2	2-47E814-1/D-4	C	12	CK	SELF	C	O	CV	N/A	Q
295	2-RFV-75-0543A	CS LP I DISCH RLF	2	2-47E814-1/E-4	C	1	RV	SELF	C	O	RV	N/A	COND
296	2-RFV-75-0543B	CS LP II DISCH RLF	2	2-47E814-1/E-4	C	1	RV	SELF	C	O	RV	N/A	COND
297	2-CKV-75-0570A	CS PMP A MN FL CK	2	2-47E814-1/D-5	C	3	CK	SELF	C	O/C	CV	N/A	CM
298	2-CKV-75-0570B	CS PMP B MN FL CK	2	2-47E814-1/D-2	C	3	CK	SELF	C	O/C	CV	N/A	CM
299	2-CKV-75-0570C	CS PMP C MN FL CK	2	2-47E814-1/D-6	C	3	CK	SELF	C	O/C	CV	N/A	CM
300	2-CKV-75-0570D	CS PMP D MN FL CK	2	2-47E814-1/D-4	C	3	CK	SELF	C	O/C	CV	N/A	CM
301	2-CKV-75-0606	CS LP I KP FILL CK	2	2-47E814-1/F-5	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
302	2-CKV-75-0607	CS LP I KP FILL CK	2	2-47E814-1/F-5	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
303	2-CKV-75-0609	CS LP II KP FILL CK	2	2-47E814-1/H-4	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
304	2-CKV-75-0610	CS LP II KP FILL CK	2	2-47E814-1/H-4	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
305	2-FCV-76-0017	DW N2 MKUP OUTBD ISOL	2	2-47E860-1/E-4	A	2	BF	AO	O/C	C	Q LT VRPIL	N/A N/A N/A	Q O/O/C O/2YR

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	S/SR INTERVAL
306	2-FCV-76-0018	DW N2 MKUP INBD ISOL	2	2-47E860-1/E-4	A	2	BF	AO	O/C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
307	2-FCV-76-0019	PSC N2 MKUP INBD ISOL	2	2-47E860-1/D-4	A	2	BF	AO	O/C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
308	2-FCV-76-0024	DW N2 PURGE OUTBD ISOL	2	2-47E860-1/E-3	A	10	BF	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
309	2-FSV-76-0049	DW ANLYZR A INBD ISOL	2	2-47E2610-76-3/F-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
310	2-FSV-76-0050	DW ANLYZR A OUTBD ISOL	2	2-47E2610-76-3/F-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
311	2-FSV-76-0055	PSC ANLYZR A INBD ISOL	2	2-47E2610-76-3/F-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
312	2-FSV-76-0056	PSC ANLYZR A OUTBD ISOL	2	2-47E2610-76-3/F-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
313	2-FSV-76-0057	PSC RTN INBD ISOL	2	2-47E2610-76-3/E-7	A	1/2	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
314	2-FSV-76-0058	PSC RTN OUTBD ISOL	2	2-47E2610-76-3/E-7	A	1/2	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
315	2-FSV-76-0059	DW ANLYZR B INBD ISOL	2	2-47E2610-76-3/F-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
316	2-FSV-76-0060	DW ANLYZR B OUTBD ISOL	2	2-47E2610-76-3/F-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
317	2-FSV-76-0065	PSC ANLYZR B INBD ISOL	2	2-47E2610-76-3/F-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
318	2-FSV-76-0066	PSC ANLYZR B OUTBD ISOL	2	2-47E2610-76-3/F-7	A	1/2	GA	S	O/C	O/C	Q LT	N/A N/A	Q O/OC
319	2-FSV-76-0067	PSC RTN INBD ISOL	2	2-47E2610-76-3/E-7	A	1/2	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
320	2-FSV-76-0068	PSC RTN OUTBD ISOL	2	2-47E2610-76-3/E-7	A	1/2	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
321	2-CKV-76-0653	TIP INDEXER PURGE CK	2	2-47E600-14/C-5	AC	2	CK	SELF	C	C	CV/LT	N/A	CM
322	2-FCV-77-0002A	DW FL DRN SMP INBD ISOL	2	2-47E852-1/C-4	A	3	BA	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
323	2-FCV-77-0002B	DW FL DRN SMP OUTBD ISOL	2	2-47E852-1/C-4	A	3	BA	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
324	2-FCV-77-0015A	DW EQ DRN SMP INBD ISOL	2	2-47E852-2/D-3	A	3	GA	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
325	2-FCV-77-0015B	DW EQ DRN SMP OUTBD ISOL	2	2-47E852-2/D-3	A	3	GA	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
326	2-FCV-78-0061	RHR TO FPC SPLY	2	2-47E855-1/H-6	B	6	GL	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
327	2-FCV-78-0062	RHR TO FPC SPLY	3	2-47E855-1/H-5	B	6	GA	H	C	O	Q VRPIL	N/A N/A	Q O/2YR
328	2-SHV-78-0524	FUEL PL DIFFSR A ISOL	3	2-47E855-1/H-5	B	8	GL	H	LO	C	Q	N/A	Q
329	2-CKV-78-0526	FUEL PL DIFFSR A SPLY	3	2-47E855-1/G-5	C	8	CK	SELF	O/C	O	CV	N/A	CM
330	2-FSV-84-0008A	DW N2 SPLY TRN A	2	2-47E862-1/E-6	A	2	GA	S	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
331	2-FSV-84-0008B	PSC N2 SPLY TRN A	2	2-47E862-1/E-4	A	2	GA	S	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
332	2-FSV-84-0008C	PSC N2 SPLY TRN B	2	2-47E862-1/E-4	A	2	GA	S	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
333	2-FSV-84-0008D	DW N2 SPLY TRN B	2	2-47E862-1/E-4	A	2	GA	S	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
334	2-FCV-84-0019	DW/PSC DISCH TO SBTG	2	2-47E862-1/G-6	A	2	GA	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
335	2-FCV-84-0020	DW/PSC DISCH TO SBTG	2	2-47E862-1/G-5	A	2	GA	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
336	2-FSV-84-0048	CAD XTIE TO DW CONT AIR ISOL	2	2-47E862-1/F-6	A	1	GA	S	C	O/C	CV/FS VRPIL LT	N/A N/A N/A	Q O/2YR O/OC
337	2-FSV-84-0049	CAD XTIE TO DW CONT AIR ISOL	2	2-47E862-1/F-4	A	1	GA	S	C	O/C	CV/FS VRPIL LT	N/A N/A N/A	Q O/2YR O/OC
338	2-CKV-84-0600	DW SPLY CHECK A	2	2-47E862-1/E-6	AC	2	CK	SELF	C	O/C	CV/LT	N/A	CM
339	2-CKV-84-0601	PSC SPLY CHECK A	2	2-47E862-1/E-6	AC	2	CK	SELF	C	O/C	CV/LT	N/A	CM
340	2-CKV-84-0602	DW SPLY CHECK B	2	2-47E862-1/E-4	AC	2	CK	SELF	C	O/C	CV/LT	N/A	CM
341	2-CKV-84-0603	PSC SPLY CHECK B	2	2-47E862-1/E-4	AC	2	CK	SELF	C	O/C	CV/LT	N/A	CM
342	2-BYV-84-0683	2-FSV-84-48 BYPASS	2	2-47E862-1/F-7	A	1	BA	H	C	O/C	Q LT	N/A N/A	Q O/OC

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	S/SR INTERVAL
343	2-BYV-84-0686	2-FSV-84-49 BYPASS	2	2-47E862-1/F-4	A	1	BA	H	C	O/C	Q LT	N/A N/A	Q O/OC
344	2-FCV-85-0037C	SDIV DRN ISOL WEST	2	2-47E2820-6/A-6	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
345	2-FCV-85-0037D	SDIV DRN ISOL WEST	N	2-47E2820-6/A-5	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
346	2-FCV-85-0037E	SDIV DRN ISOL EAST	2	2-47E2820-6/A-3	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
347	2-FCV-85-0037F	SDIV DRN ISOL EAST	N	2-47E2820-6/A-3	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
348	2-FCV-85-0039A	SCRM INLT (185 TOTAL)	1	2-47E820-2/F-4	B	1	GL	AO	C	O	Q/FS	PV-2	O/16W
349	2-FCV-85-0039B	SCRM OUTLT (185 TOTAL)	1	2-47E820-2/F-4	B	3/4	GL	AO	C	O	Q/FS	PV-2	O/16W
350	2-FCV-85-0082	SCRM DISCH HDR VT WEST	N	2-47E2820-6/H-7	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
351	2-FCV-85-0082A	SCRM DISCH HDR VT WEST	2	2-47E2820-6/H-7	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
352	2-FCV-85-0083	SCRM DISCH HDR VT EAST	N	2-47E2820-6/H-2	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
353	2-FCV-85-0083A	SCRM DISCH HDR VT EAST	2	2-47E2820-6/H-3	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
354	2-CKV-85-0589	CHRG WTR (185 TOTAL)	2	2-47E820-2/F-3	C	1/2	CK	SELF	C	O/C	CV	N/A	CM
355	2-CKV-85-0597	CLG WTR (185 TOTAL)	1	2-47E820-2/G-3	C	1/2	CK	SELF	C	C	CV	N/A	CM
356	2-CKV-85-0616	SCRM OUTLT (185 TOTAL)	2	2-47E820-2/E-4	C	3/4	CK	SELF	C	O	CV	N/A	CM
357	2-FSV-90-0254A	DW LEAK DET ISOL	2	2-47E610-90-1/G-2	A	1	GA	S	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
358	2-FSV-90-0254B	DW LEAK DET ISOL	2	2-47E610-90-1/G-2	A	1	GA	S	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
359	2-FSV-90-0255	DW LEAK DET ISOL	2	2-47E610-90-1/G-2	A	1	GA	S	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
360	2-FSV-90-0257A	DW LEAK DET ISOL	2	2-47E610-90-1/H-2	A	1	GA	S	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
361	2-FSV-90-0257B	DW LEAK DET ISOL	2	2-47E610-90-1/H-2	A	1	GA	S	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
362	2-FCV-94-0501	TIP INDEXER BALL VLV	2	2-47E600-14/B-8	A	3/8	BA	S	C	C	Q LT/VRPIL	N/A N/A	Q O/OC
363	2-FCV-94-0502	TIP INDEXER BALL VLV	2	2-47E600-14/B-8	A	3/8	BA	S	C	C	Q LT/VRPIL	N/A N/A	Q O/OC
364	2-FCV-94-0503	TIP INDEXER BALL VLV	2	2-47E600-14/A-8	A	3/8	BA	S	C	C	Q LT/VRPIL	N/A N/A	Q O/OC
365	2-FCV-94-0504	TIP INDEXER BALL VLV	2	2-47E600-14/A-8	A	3/8	BA	S	C	C	Q LT/VRPIL	N/A N/A	Q O/OC
366	2-FCV-94-0505	TIP INDEXER BALL VLV	2	2-47E600-14/A-8	A	3/8	BA	S	C	C	Q LT/VRPIL	N/A N/A	Q O/OC

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	SI/SR INTERVAL
1	3-PCV-01-0004	MS LN A RLF	1	3-47E801-1/B-3	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC O/OC
2	3-PCV-01-0005	MS LN A RLF	1	3-47E801-1/B-5	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
3	3-FCV-01-0014	MS LN A INBD ISOL	1	3-47E801-1/B-6	A	26	GL	AO	O	C	Q/FS LT	RO-01 N/A	O/RO O/OC
4	3-FCV-01-0015	MS LN A OUTBD ISOL	1	3-47E801-1/B-7	A	26	GL	AO	O	C	Q/FS LT	CSDJ-04 N/A	CSD O/OC
5	3-PCV-01-0018	MS LN B RLF	1	3-47E801-1/C-1	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
6	3-PCV-01-0019	MS LN B RLF	1	3-47E801-1/C-2	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
7	3-PCV-01-0022	MS LN B RLF	1	3-47E801-1/C-3	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
8	3-PCV-01-0023	MS LN B RLF	1	3-47E801-1/C-4	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
9	3-FCV-01-0026	MS LN B INBD ISOL	1	3-47E801-1/C-6	A	26	GL	AO	O	C	Q/FS LT	O/RO N/A	O/RO O/OC
10	3-FCV-01-0027	MS LN B OUTBD ISOL	1	3-47E801-1/C-7	A	26	GL	AO	O	C	Q/FS LT	CSDJ-04 N/A	CSD O/OC
11	3-PCV-01-0030	MS LN C RLF	1	3-47E801-1/E-1	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
12	3-PCV-01-0031	MS LN C RLF	1	3-47E801-1/E-2	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
13	3-PCV-01-0034	MS LN C RLF	1	3-47E801-1/E-4	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
14	3-FCV-01-0037	MS LN C INBD ISOL	1	3-47E801-1/E-6	A	26	GL	AO	O	C	Q/FS LT	RO-01 N/A	O/RO O/OC
15	3-FCV-01-0038	MS LN C OUTBD ISOL	1	3-47E801-1/E-7	A	26	GL	AO	O	C	Q/FS LT	CSDJ-04 N/A	CSD O/OC
16	3-PCV-01-0041	MS LN D RLF	1	3-47E801-1/F-3	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
17	3-PCV-01-0042	MS LN D RLF	1	3-47E801-1/F-4	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC
18	3-FCV-01-0051	MS LN D INBD ISOL	1	3-47E801-1/F-6	A	26	GL	AO	O	C	Q/FS LT	RO-01 N/A	O/RO O/OC
19	3-FCV-01-0052	MS LN D OUTBD ISOL	1	3-47E801-1/E-7	A	26	GL	AO	O	C	Q/FS LT	CSDJ-04 N/A	CSD O/OC
20	3-FCV-01-0055	MS DRN LN INBD ISOL	1	3-47E801-1/D-6	A	3	GA	MO	C	C	Q VRPIL LT	N/A N/A N/A	Q O/2YR O/OC
21	3-FCV-01-0056	MS DRN LN OUTBD ISOL	1	3-47E801-1/D-7	A	3	GA	MO	C	C	Q VRPIL LT	N/A N/A N/A	Q O/2YR O/OC
22	3-FCV-01-0058	MS DRN TO COND ISOL	2	3-47E801-1/D-9	B	3	GL	MO	C	O	Q VRPIL LT	N/A N/A	Q O/2YR
23	3-FCV-01-0059	MS DRN TO COND ISOL	2	3-47E801-1/D-10	B	4	GA	MO	C	O	Q VRPIL LT	N/A N/A	Q O/2YR
24	3-FCV-01-0127	RFPT 3A HP STOP VLV	2	3-47E801-2/B-7	B	4	GA	HYD	O	C	Q VRPIL LT	N/A N/A	Q O/2YR
25	3-FCV-01-0135	RFPT 3B HP STOP VLV	2	3-47E801-2/B-6	B	4	GA	HYD	O	C	Q VRPIL LT	N/A N/A	Q O/2YR
26	3-FCV-01-0143	RFPT 3C HP STOP VLV	2	3-47E801-2/B-5	B	4	GA	HYD	O	C	Q VRPIL LT	N/A N/A	Q O/2YR
27	3-PCV-01-0147	MS STM SEAL ISOL	2	3-47E807-2/D-6	B	4	AN	AO	C	C	Q/FS VRPIL	CSDJ-05 N/A	CSD O/2YR
28	3-PCV-01-0151	SJAE 3A STG 1 & 2 SPLY PRESS REG	2	3-47E801-2/B-4	B	1-1/2	GA	AO	O	C	Q VRPIL	CSDJ-06 N/A	CSD O/2YR
29	3-PCV-01-0153	SJAE 3B STG 1 & 2 SPLY PRESS REG	2	3-47E801-2/B-3	B	1-1/2	GA	AO	O	C	Q VRPIL	CSDJ-06 N/A	CSD O/2YR
30	3-PCV-01-0166	SJAE 3A STG 3 SPLY PRESS REG	2	3-47E801-2/B-4	B	1-1/2	GA	AO	O	C	Q VRPIL	CSDJ-06 N/A	CSD O/2YR
31	3-PCV-01-0167	SJAE 3B STG 3 SPLY PRESS REG	2	3-47E801-2/B-3	B	1-1/2	GA	AO	O	C	Q VRPIL	CSDJ-06 N/A	CSD O/2YR
32	3-PCV-01-0179	MS LN A RLF	1	3-47E801-1/H-6	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC O/OC
33	3-PCV-01-0180	MS LN D RLF	1	3-47E801-1/E-6	C	6	RV	AO/SELF	C	O	RV	N/A	O/OC O/OC
34	3-CKV-01-0742	OG PREHTR 3A SPLY CKV	2	3-47E801-2/D-2	C	2	CK	SELF	O	C	CV	N/A	CM
35	3-CKV-01-0744	OG PREHTR 3B SPLY CKV	2	3-47E801-2/C-2	C	2	CK	SELF	O	C	CV	N/A	CM
36	3-CKV-03-0554	FDWTR LN A OUTBD ISOL	1	3-47E803-1/G-6	AC	24	CK	SELF	O	C	CV/LT	N/A	CM
37	3-CKV-03-0558	FDWTR LN A INBD ISOL	1	3-47E803-1/G-7	AC	24	CK	SELF	O	O/C	CV/LT	N/A	CM
38	3-CKV-03-0568	FDWTR LN B OUTBD ISOL	1	3-47E803-1/F-6	AC	24	CK	SELF	O	C	CV/LT	N/A	CM
39	3-CKV-03-0572	FDWTR LN B INBD ISOL	1	3-47E803-1/F-6	AC	24	CK	SELF	O	O/C	CV/LT	N/A	CM
40	3-CKV-06-0822	SJAE 3B COND DRN CKV	2	3-47E805-3/G-7	C	1/2	CK	SELF	O	C	CV	N/A	CM
41	3-CKV-06-0826	SJAE 3A COND DRN CKV	2	3-47E805-3/G-6	C	1/2	CK	SELF	O	C	CV	N/A	CM
42	3-CKV-10-0506	MSRV TL PIPE A VAC RLF	3	3-47E817-1/C-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
43	3-CKV-10-0507	MSRV TL PIPE B VAC RLF	3	3-47E817-1/C-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
44	3-CKV-10-0508	MSRV TL PIPE C VAC RLF	3	3-47E817-1/C-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
45	3-CKV-10-0509	MSRV TL PIPE D VAC RLF	3	3-47E817-1/C-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
46	3-CKV-10-0510	MSRV TL PIPE E VAC RLF	3	3-47E817-1/C-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
47	3-CKV-10-0511	MSRV TL PIPE F VAC RLF	3	3-47E817-1/C-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
48	3-CKV-10-0512	MSRV TL PIPE G VAC RLF	3	3-47E817-1/C-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
49	3-CKV-10-0513	MSRV TL PIPE H VAC RLF	3	3-47E817-1/C-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
50	3-CKV-10-0514	MSRV TL PIPE J VAC RLF	3	3-47E817-1/C-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
51	3-CKV-10-0515	MSRV TL PIPE K VAC RLF	3	3-47E817-1/C-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
52	3-CKV-10-0516	MSRV TL PIPE L VAC RLF	3	3-47E817-1/C-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
53	3-CKV-10-0519	MSRV TL PIPE M VAC RLF	3	3-47E817-1/C-3	C	2.5	CK	SELF	C	O	CV	N/A	CM
54	3-CKV-10-0520	MSRV TL PIPE N VAC RLF	3	3-47E817-1/C-3	C	2.5	CK	SELF	C	O	CV	N/A	CM

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FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	SI/SR INTERVAL
55	3-CKV-10-0521	MSRV TL PIPE A VAC RLF	3	3-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
56	3-CKV-10-0522	MSRV TL PIPE B VAC RLF	3	3-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
57	3-CKV-10-0523	MSRV TL PIPE C VAC RLF	3	3-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
58	3-CKV-10-0524	MSRV TL PIPE D VAC RLF	3	3-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
59	3-CKV-10-0525	MSRV TL PIPE E VAC RLF	3	3-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
60	3-CKV-10-0526	MSRV TL PIPE F VAC RLF	3	3-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
61	3-CKV-10-0527	MSRV TL PIPE G VAC RLF	3	3-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
62	3-CKV-10-0528	MSRV TL PIPE H VAC RLF	3	3-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
63	3-CKV-10-0529	MSRV TL PIPE J VAC RLF	3	3-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
64	3-CKV-10-0530	MSRV TL PIPE K VAC RLF	3	3-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
65	3-CKV-10-0531	MSRV TL PIPE L VAC RLF	3	3-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
66	3-CKV-10-0532	MSRV TL PIPE M VAC RLF	3	3-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
67	3-CKV-10-0533	MSRV TL PIPE N VAC RLF	3	3-47E817-1/C-3	C	10	CK	SELF	C	O	CV	N/A	CM
68	3-FCV-23-0034	RHR HTX A OUTLT	3	3-47E858-1/E-7	B	12	GL	MO	C	O	Q/VRPIL	N/A	Q
69	3-FCV-23-0040	RHR HTX C OUTLT	3	3-47E858-1/H-7	B	12	GL	MO	C	O	Q/VRPIL	N/A	Q
70	3-FCV-23-0046	RHR HTX B OUTLT	3	3-47E858-1/E-4	B	12	GL	MO	C	O	Q/VRPIL	N/A	Q
71	3-FCV-23-0052	RHR HTX D OUTLT	3	3-47E858-1/H-4	B	12	GL	MO	C	O	Q/VRPIL	N/A	Q
72	3-RFV-23-0509	RHR HTX A SPLY RLF	3	3-47E858-1/D-7	C	1	RV	SELF	C	O	RV	N/A	COND
73	3-RFV-23-0516	RHR HTX A TUBE RLF	3	3-47E858-1/F-6	C	1	RV	SELF	C	O	RV	N/A	COND
74	3-RFV-23-0529	RHR HTX B SPLY RLF	3	3-47E858-1/E-5	C	1	RV	SELF	C	O	RV	N/A	COND
75	3-RFV-23-0536	RHR HTX B TUBE RLF	3	3-47E858-1/F-6	C	1	RV	SELF	C	O	RV	N/A	COND
76	3-RFV-23-0549	RHR HTX C SPLY RLF	3	3-47E858-1/E-7	C	1	RV	SELF	C	O	RV	N/A	COND
77	3-RFV-23-0555	RHR HTX C TUBE RLF	3	3-47E858-1/H-6	C	1	RV	SELF	C	O	RV	N/A	COND
78	3-RFV-23-0568	RHR HTX D SPLY RLF	3	3-47E858-1/E-4	C	1	RV	SELF	C	O	RV	N/A	COND
79	3-RFV-23-0574	RHR HTX D TUBE RLF	3	3-47E858-1/H-6	C	1	RV	SELF	C	O	RV	N/A	COND
80	3-CKV-23-0579	RHR HTX A INLT CK	3	3-47E858-1/E-7	C	16	CK	SELF	C	O	CV	N/A	CM
81	3-CKV-23-0580	RHR HTX B INLT CK	3	3-47E858-1/E-5	C	16	CK	SELF	C	O	CV	N/A	CM
82	3-CKV-23-0581	RHR HTX C INLT CK	3	3-47E858-1/E-7	C	16	CK	SELF	C	O	CV	N/A	CM
83	3-CKV-23-0582	RHR HTX D INLT CK	3	3-47E858-1/E-4	C	16	CK	SELF	C	O	CV	N/A	CM
84	3-FCV-32-0062	DCA CMPR SUCT ISOL	2	3-47E610-32-2/C-8	A	3	PL	AO	O	C	Q/FS LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
85	3-FCV-32-0063	DCA CMPR SUCT ISOL	2	3-47E610-32-2/C-7	A	3	PL	AO	O	C	Q/FS LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
86	3-CKV-32-0336	DCA CNTMT ISOL	2	3-47E3847-5/D-4	AC	1	CK	SELF	O/C	C	CV/LT	N/A	CM
87	3-CKV-32-2163	DCA CNTMT ISOL	2	3-47E3847-9/H-7	AC	1	CK	SELF	O/C	C	CV/LT	N/A	CM
88	3-CKV-32-2516	DCA CNTMT ISOL	2	3-47E3847-9/B-4	AC	3/4	CK	SELF	O/C	C	CV/LT	N/A	CM
89	3-CKV-32-2521	DCA CNTMT ISOL	2	3-47E3847-5/C-5	AC	3/4	CK	SELF	O/C	C	CV/LT	N/A	CM
90	3-FCV-43-0013	RECIRC CNTMT ISOL	1	3-47E610-43-1/H-4	A	3/4	GL	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
91	3-FCV-43-0014	RECIRC CNTMT ISOL	1	3-47E610-43-1/G-4	A	3/4	GL	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
92	3-FSV-43-0040	PASS CNTMT ISOL	N	3-47E867-3/F-2	A	1/2	GL	S	C	C	LT VRPIL	N/A N/A	O/OC O/2YR
93	3-FSV-43-0042	PASS CNTMT ISOL	N	3-47E867-3/F-2	A	1/2	GL	S	C	C	LT VRPIL	N/A N/A	O/OC O/2YR
94	3-FSV-43-0050	PASS CNTMT ISOL	2	3-47E867-3/G-2	A	1/2	GL	S	C	C	LT VRPIL	N/A N/A	O/OC O/2YR
95	3-FSV-43-0056	PASS CNTMT ISOL	2	3-47E867-3/G-2	A	1/2	GL	S	C	C	LT VRPIL	N/A N/A	O/OC O/2YR
96	3-FSV-43-0070	PASS CNTMT ISOL	1	3-47E867-3/B-2	A	1/2	GL	S	C	C	LT VRPIL	N/A N/A	O/OC O/2YR
97	3-FCV-63-0008A	SLC PMP A INJ	2	3-47E854-1/E-6	D	1.5	GA	X	C	O	DT	N/A	E/RO
98	3-FCV-63-0008B	SLC PMP B INJ	2	3-47E854-1/E-6	D	1.5	GA	X	C	O	DT	N/A	E/RO
99	3-RFV-63-0512	SLC PMP A RLF	2	3-47E854-1/E-5	C	1	RV	SELF	C	O	RV	N/A	O/OC
100	3-RFV-63-0513	SLC PMP B RLF	2	3-47E854-1/E-4	C	1	RV	SELF	C	O	RV	N/A	O/OC
101	3-CKV-63-0514	SLC PMP A DISCH CK	2	3-47E854-1/E-5	C	1.5	CK	SELF	C	O	CV	N/A	CM
102	3-CKV-63-0516	SLC PMP B DISCH CK	2	3-47E854-1/E-4	C	1.5	CK	SELF	C	O	CV	N/A	CM
103	3-CKV-63-0525	SLC CNTMT ISOL	1	3-47E854-1/E-7	AC	1.5	CK	SELF	C	O/C	CV	N/A	CM
104	3-CKV-63-0526	SLC CNTMT ISOL	1	3-47E854-1/D-7	AC	1.5	CK	SELF	C	O/C	CV	N/A	CM
105	3-FCV-64-0020	PSC VAC RLF ISOL	2	3-47E865-12/B-6	A	20	BF	AO	C	O	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
106	3-FCV-64-0021	PSC VAC RLF ISOL	2	3-47E865-12/B-6	A	20	BF	AO	C	O	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
107	3-FCV-64-0031	DW SBTG INBD CNTMT ISOL	2	3-47E865-12/E-4	A	2	BF	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
108	3-FCV-64-0034	PSC SBTG INBD CNTMT ISOL	2	3-47E865-12/B-2	A	2	BF	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
109	3-FCV-64-0139	DCA CMP SUCT CNTMT ISOL	2	3-47E865-12/H-2	A	3	GL	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	SI/SR INTERVAL
110	3-FCV-64-0140	DCA CMP DISCH CNTMT ISOL	2	3-47E865-12/H-2	A	2	GL	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
111	3-FCV-64-0221	PSC VENT TO PLANT STACK ISOL	2	3-47E865-12/H-8	A	14	BF	AO	C	O/C	Q/FS LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
112	3-FCV-64-0222	PSC VENT TO PLANT STACK ISOL	2	3-47E865-12/H-8	A	14	BF	AO	C	O/C	Q/FS LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
113	3-CKV-64-0800	PSC VAC RLF CK	2	3-47E865-12/B-6	AC	20	CK	SELF	C	O/C	Q/LT	N/A	CM
114	3-CKV-64-0801	PSC VAC RLF CK	2	3-47E865-12/B-6	AC	20	CK	SELF	C	O/C	Q/LT	N/A	CM
115	3-FCV-67-0050	EECW N HDR TO RBCCW HTX	3	3-47E859-1/G-5	B	8	BA	AO	C	C	Q VRPIL	N/A N/A	Q O/2YR
116	3-FCV-67-0051	EECW S HDR TO RBCCW HTX	3	3-47E859-1/B-6	B	8	BA	AO	C	C	Q VRPIL	N/A N/A	Q O/2YR
117	3-CKV-67-0541	LP I CS CLR S HDR SPLY	3	3-47E859-1/F-8	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
118	3-CKV-67-0542	LP I CS CLR S HDR SPLY	3	3-47E859-1/F-8	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
119	3-CKV-67-0558	LP I RHR CLR S HDR SPLY	3	3-47E859-1/C-6	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
120	3-CKV-67-0559	LP I RHR CLR S HDR SPLY	3	3-47E859-1/C-6	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
121	3-CKV-67-0584	LP II CS CLR S HDR SPLY	3	3-47E859-1/F-5	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
122	3-CKV-67-0585	LP II CS CLR S HDR SPLY	3	3-47E859-1/F-5	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
123	3-CKV-67-0600	LP II RHR CLR S HDR SPLY	3	3-47E859-1/B-4	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
124	3-CKV-67-0601	LP II RHR CLR S HDR SY	3	3-47E859-1/C-4	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
125	3-CKV-67-0638	LP I RHR CLR N HDR SPLY	3	3-47E859-1/F-7	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
126	3-CKV-67-0639	LP I RHR CLR N HDR SPLY	3	3-47E859-1/C-7	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
127	3-CKV-67-0648	LP I CS CLR N HDR SPLY	3	3-47E859-1/F-6	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
128	3-CKV-67-0649	LP I CS CLR N HDR SPLY	3	3-47E859-1/F-6	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
129	3-CKV-67-0656	LP II CS CLR N HDR SPLY	3	3-47E859-1/F-4	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
130	3-CKV-67-0657	LP II CS CLR N HDR SPLY	3	3-47E859-1/F-4	C	2.5	CK	SELF	O/C	O/C	CV	N/A	CM
131	3-CKV-67-0659	LP II RHR CLR N HDR SPLY	3	3-47E859-1/G-3	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
132	3-CKV-67-0660	LP II RHR CLR N HDR SPLY	3	3-47E859-1/C-4	C	3	CK	SELF	O/C	O/C	CV	N/A	CM
133	3-CKV-67-0693	3A DG CLR N HDR CK	3	3-47E859-2/C-6	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
134	3-CKV-67-0694	3A DG CLR N HDR CK	3	3-47E859-2/C-6	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
135	3-CKV-67-0695	3A DG CLR S HDR CK	3	3-47E859-2/C-6	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
136	3-CKV-67-0696	3A DG CLR S HDR CK	3	3-47E859-2/C-6	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
137	3-CKV-67-0703	3B DG CLR N HDR CK	3	3-47E859-2/D-6	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
138	3-CKV-67-0704	3B DG CLR N HDR CK	3	3-47E859-2/D-6	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
139	3-CKV-67-0705	3B DG CLR S HDR CK	3	3-47E859-2/D-6	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
140	3-CKV-67-0706	3B DG CLR S HDR CK	3	3-47E859-2/D-6	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
141	3-CKV-67-0713	3C DG CLR N HDR CK	3	3-47E859-2/F-6	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
142	3-CKV-67-0714	3C DG CLR N HDR CK	3	3-47E859-2/F-6	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
143	3-CKV-67-0715	3C DG CLR S HDR CK	3	3-47E859-2/F-6	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
144	3-CKV-67-0716	3C DG CLR S HDR CK	3	3-47E859-2/F-6	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
145	3-CKV-67-0723	3D DG CLR N HDR CK	3	3-47E859-2/G-6	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
146	3-CKV-67-0724	3D DG CLR N HDR CK	3	3-47E859-2/G-6	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
147	3-CKV-67-0725	3D DG CLR S HDR CK	3	3-47E859-2/G-6	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
148	3-CKV-67-0726	3D DG CLR S HDR CK	3	3-47E859-2/G-6	C	4	CK	SELF	O/C	O/C	CV	N/A	CM
149	3-CKV-67-0735	U3 SDBR CHILLER N HDR CK	3	3-47E859-2/D-4	C	2	CK	SELF	O/C	O/C	CV	N/A	CM
150	3-CKV-67-0736	U3 SDBR CHILLER N HDR CK	3	3-47E859-2/D-4	C	2	CK	SELF	O/C	O/C	CV	N/A	CM
151	3-CKV-67-0737	U3 SDBR CHILLER S HDR CK	3	3-47E859-2/F-4	C	2	CK	SELF	O/C	O/C	CV	N/A	CM
152	3-CKV-67-0738	U3 SDBR CHILLER S HDR CK	3	3-47E859-2/F-4	C	2	CK	SELF	O/C	O/C	CV	N/A	CM
153	3-HCV-67-0769	3A CB CHL DISCH ISOL	3	3-47E866-7/E-6	B	6	BF	H	O/C	O/C	Q	N/A	Q
154	3-HCV-67-0779	3B CB CHL DISCH ISOL	3	3-47E866-7/A-6	B	6	BF	H	O/C	O/C	Q	N/A	Q
155	3-HCV-67-0807	U3 SDBR CHL EECW XTIE	3	3-47E859-2/E-4	B	2	GA	H	C	O	Q	N/A	Q
156	3-HCV-67-0808	U3 SDBR CHL EECW XTIE	3	3-47E859-2/E-4	B	2	GA	H	C	O	Q	N/A	Q
157	3-CKV-67-0838	H2O2 PNL 25-340 SPLY	3	3-47E859-1/F-3	C	1	CK	SELF	O/C	O	CV	N/A	CM
158	3-CKV-67-0839	H2O2 PNL 25-340 SPLY	3	3-47E859-1/F-3	C	1	CK	SELF	O/C	O	CV	N/A	CM
159	3-CKV-67-0841	U3 CB CHLR N HDR SPLY	3	1-47E859-1/G-1	C	6	CK	SELF	C	O/C	CV	N/A	CM
160	3-CKV-67-0842	U3 CB CHLR N HDR SPLY	3	1-47E859-1/G-1	C	6	CK	SELF	C	O/C	CV	N/A	CM
161	3-CKV-67-0843	H2O2 PNL 25-341 SPLY	3	3-47E859-1/F-2	C	1	CK	SELF	O/C	O	CV	N/A	CM
162	3-CKV-67-0844	H2O2 PNL 25-341 SPLY	3	3-47E859-1/F-2	C	1	CK	SELF	O/C	O	CV	N/A	CM
163	3-CKV-67-0845	U3 CB CHLR S HDR SPLY	3	1-47E859-1/B-1	C	6	CK	SELF	C	O/C	CV	N/A	CM
164	3-CKV-67-0846	U3 CB CHLR S HDR SPLY	3	1-47E859-1/B-1	C	6	CK	SELF	C	O/C	CV	N/A	CM
165	3-CKV-67-5002	U3 EBR ACU S HDR SUP	3	3-47E859-1/D-2	C	2	CK	SELF	O/C	O/C	CV	N/A	CM
166	3-CKV-67-5021	U3 EBR ACU N HDR SUP	3	3-47E859-1/E-2	C	2	CK	SELF	O/C	O/C	CV	N/A	CM
167	3-CKV-67-5022	U3 EBR ACU S HDR SUP	3	3-47E859-1/D-2	C	2	CK	SELF	O/C	O/C	CV	N/A	CM
168	3-CKV-67-5023	U3 EBR ACU N HDR SUP	3	3-47E859-1/E-2	C	2	CK	SELF	O/C	O/C	CV	N/A	CM
169	3-FCV-68-0003	RECIRC PMP A DISCH	1	3-47E817-1/D-6	B	28	GA	MO	O	C	Q VRPIL	CSDJ-01 N/A	CSD O/2YR
170	3-FCV-68-0079	RECIRC PMP B DISCH	1	3-47E817-1/C-4	B	28	GA	MO	O	C	Q VRPIL	CSDJ-01 N/A	CSD O/2YR
171	3-CKV-68-0508	RECIRC PMP SEAL ISOL	1	3-47E817-1/A-6	AC	3/4	CK	SELF	O	C	CV/LT	N/A	CM
172	3-CKV-68-0523	RECIRC PMP SEAL ISOL	1	3-47E817-1/A-4	AC	3/4	CK	SELF	O	C	CV/LT	N/A	CM
173	3-CKV-68-0550	RECIRC PMP SEAL ISOL	1	3-47E817-1/A-7	AC	3/4	CK	SELF	O	C	CV/LT	N/A	CM
174	3-CKV-68-0555	RECIRC PMP SEAL ISOL	1	3-47E817-1/A-3	AC	3/4	CK	SELF	O	C	CV/LT	N/A	CM
175	3-FCV-69-0001	RVCU INBD CNTMT ISOL	1	3-47E810-1/G-7	A	6	GA	MO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	SISR INTERVAL
176	3-FCV-69-0002	RWCU OUTBD CNTMT ISOL	1	3-47E810-1/G-6	A	6	GA	MO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
177	3-CKV-69-0628	RWCU TO FDWTR ISOL	1	3-47E810-1/F-6	AC	4	CK	SELF	O	C	CV/LT	N/A	CM
178	3-CKV-69-0629	RWCU TO FDWTR ISOL	1	3-47E810-1/E-6	AC	4	CK	SELF	O	C	CV/LT	N/A	CM
179	3-FCV-70-0047	RBCCW RTN CNTMT ISOL	2	3-47E822-1/G-4	A	8	GA	MO	O	C	Q LT VRPIL	CSDJ-02 N/A N/A	CSD O/OC O/2YR
180	3-CKV-70-0506	RBCCW SPLY CNTMT ISOL	2	3-47E822-1/F-4	AC	8	CK	SELF	O	C	CV/LT	N/A	CM
181	3-FCV-71-0002	RCIC STM LN INBD CNTMT ISOL	1	3-47E813-1/G-6	A	3	GA	MO	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
182	3-FCV-71-0003	RCIC STM LN OUTBD CNTMT ISOL	1	3-47E813-1/G-6	A	3	GA	MO	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
183	3-FCV-71-0006A	RCIC STM LN TO COND DRN	2	3-47E813-1/E-1	B	1	GA	AO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
184	3-FCV-71-0006B	RCIC STM LN TO COND DRN	2	3-47E813-1/E-1	B	1	GA	AO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
185	3-FCV-71-0007A	RCIC CND PMP DISCH ISOL	2	3-47E813-1/A-3	B	1	GA	AO	C	C	Q VRPIL	N/A N/A	Q O/2YR
186	3-FCV-71-0008	RCIC TRB STM SPLY	2	3-47E813-1/F-1	B	4	GL	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
187	3-FCV-71-0009	RCIC TRB STOP VLV	2	3-47E813-1/F-2	B	3	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
188	3-RPD-71-0011A	RCIC TRB EXH RP DISC	2	3-47E813-1/E-3	D	8	RD	SELF	C	O	VI	N/A	O/5YR
189	3-SHV-71-0014	RCIC TRB EXHAUST VLV	2	3-47E813-1/D-7	AC	8	SC	H/SELF	O	O/C	CV/VRPIL LT	N/A	CM
190	3-FCV-71-0017	PSC TO RCIC INBD CNTMT ISOL	2	3-47E813-1/B-6	A	6	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
191	3-FCV-71-0018	PSC TO RCIC OUTBD CNTMT ISOL	2	3-47E813-1/G-4	A	6	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
192	3-RFV-71-0019	RCIC PMP SUCT RLF	2	3-47E813-1/G-4	C	1	RV	SELF	C	O	RV	N/A	COND
193	3-FCV-71-0025	RCIC LUBE OIL CLG WTR SPLY	2	3-47E813-1/B-4	B	2	GL	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
194	3-SHV-71-0032	RCIC COND VAC PMP DISCH	2	3-47E813-1/D-7	AC	2	SC	H/SELF	C	C	CV/VRPIL LT	N/A	CM
195	3-FCV-71-0034	RCIC PMP MIN FLOW	2	3-47E813-1/E-5	A	2	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
196	3-FCV-71-0037	RCIC INJ OUTBD ISOL	2	3-47E813-1/F-5	B	6	GA	MO	O	O	Q VRPIL	N/A N/A	Q O/2YR
197	3-FCV-71-0038	RCIC PMP TEST RTN TO CST	2	3-47E813-1/G-5	B	4	GL	MO	C	C	Q VRPIL	N/A N/A	Q O/2YR
198	3-FCV-71-0039	RCIC INJ INBD ISOL	2	3-47E813-1/F-6	B	6	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
199	3-FCV-71-0040	RCIC TESTABLE CK	1	3-47E813-1/F-6	AC	6	CK	AO/SELF	C	O/C	CV/VRPIL LLT	N/A	CM
200	3-CKV-71-0499	CST TO RCIC PMP INLT CK	2	3-47E813-1/G-4	C	6	CK	SELF	C	O/C	CV	N/A	CM
201	3-CKV-71-0508	PSC TO RCIC PMP INLT CK	2	3-47E813-1/B-6	C	6	CK	SELF	C	O	CV	N/A	CM
202	3-RFV-71-0543	RCIC COND CLG WTR	2	3-47E813-1/B-4	C	1	RV	SELF	C	O	RV	N/A	COND
203	3-CKV-71-0547	RCIC PMP MIN FLOW CK	2	3-47E813-1/E-5	AC	2	CK	SELF	C	O/C	CV/LT	N/A	CM
204	3-CKV-71-0580	RCIC TRB EXH CK	2	3-47E813-1/E-7	AC	10	CK	SELF	C	O/C	CV/LT	N/A	CM
205	3-CKV-71-0589	RCIC COND PMP	2	3-47E813-1/A-3	C	2	CK	SELF	C	C	CV	N/A	CM
206	3-CKV-71-0592	RCIC VAC PMP DISCH CK	2	3-47E813-1/D-5	AC	2	CK	SELF	C	C	CV/LT	N/A	CM
207	3-CKV-71-0597	RCIC TRB EXH VAC RLF	2	3-47E813-1/E-7	C	2	CK	SELF	C	O	CV	N/A	CM
208	3-CKV-71-0598	RCIC TRB EXH VAC RLF	2	3-47E813-1/E-7	C	2	CK	SELF	C	O	CV	N/A	CM
209	3-CKV-71-0599	RCIC TRB EXH VAC RLF	2	3-47E813-1/D-7	C	2	CK	SELF	C	O	CV	N/A	CM
210	3-CKV-71-0600	RCIC TRB EXH VAC RLF	2	3-47E813-1/D-7	C	2	CK	SELF	C	O	CV	N/A	CM
211	3-FCV-73-0002	HPCI STM LN INBD CNTMT ISOL	1	3-47E812-1/G-7	A	10	GA	MO	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
212	3-FCV-73-0003	HPCI STM LN OUTBD CNTMT ISOL	1	3-47E812-1/G-6	A	10	GA	MO	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
213	3-FCV-73-0006A	HPCI STM LN TO COND DRN	2	3-47E812-1/E-2	B	1	GA	AO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
214	3-FCV-73-0006B	HPCI STM LN TO COND DRN	2	3-47E812-1/E-2	B	1	GA	AO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
215	3-FCV-73-0016	HPCI TRB STM SPLY VLV	2	3-47E812-1/G-3	B	10	GA	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
216	3-FCV-73-0018	HPCI TRB STOP VLV	2	3-47E812-1/G-3	B	10	GA	E/H	C	O	Q/FS VRPIL	N/A N/A	Q O/2YR
217	3-ISV-73-0023	HPCI TRB EXHAUST VLV	2	3-47E812-1/E-7	AC	16	SC	H/SELF	O	O/C	CV/VRPIL LT	N/A	CM

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	SI/SR INTERVAL
218	3-ISV-73-0024	HPCI EXH COND POT DISCH	2	3-47E812-1/D-6	AC	2	SC	H/SELF	C	C	CV/LT	N/A	CM
219	3-FCV-73-0026	PSC TO HPCI INBD ISOL	2	3-47E812-1/B-6	A	16	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
220	3-FCV-73-0027	PSC TO HPCI OUTBD ISOL	2	3-47E812-1/G-5	A	16	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
221	3-FCV-73-0030	HPCI PMP MIN FLOW	2	3-47E812-1/D-5	A	4	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
222	3-FCV-73-0034	HPCI INJ OUTBD ISOL	2	3-47E812-1/F-5	B	14	GA	MO	O	O	Q VRPIL	N/A N/A	Q O/2YR
223	3-FCV-73-0035	HPCI PMP TEST RTN TO CST	2	3-47E812-1/F-6	B	10	GL	MO	C	C	Q VRPIL	N/A N/A	Q O/2YR
224	3-FCV-73-0040	HPCI PMP SUCTION ISOL	2	3-47E812-1/H-4	B	14	GA	MO	O	C	Q VRPIL	N/A N/A	Q O/2YR
225	3-FCV-73-0044	HPCI INJ INBD ISOL	2	3-47E812-1/F-6	B	14	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
226	3-FCV-73-0045	HPCI TESTABLE CK	1	3-47E812-1/E-6	AC	14	CK	AO/SELF	C	O/C	CV/VRPIL LT	N/A	CM
227	3-FCV-73-0081	3-FCV-73-3 BYPASS	1	3-47E812-1/G-6	A	1	GL	MO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
228	3-CKV-73-0505	CST TO HPCI PMP INLT	2	3-47E812-1/H-4	C	14	CK	SELF	C	O/C	CV	N/A	CM
229	3-RFV-73-0506	HPCI PMP SUCT RLF	2	3-47E812-1/G-4	C	1	RV	SELF	C	O	RV	N/A	COND
230	3-CKV-73-0517	PSC TO HPCI PMP INLT	2	3-47E812-1/B-6	C	16	CK	SELF	C	O	CV	N/A	CM
231	3-CKV-73-0559	HPCI PMP MIN FLOW	2	3-47E812-1/D-5	AC	4	CK	SELF	C	O/C	CV/LT	N/A	CM
232	3-RFV-73-0574	HPCI PMP GLD SEAL COND	2	3-47E812-1/C-4	C	1	RV	SELF	C	O	RV	N/A	COND
233	3-CKV-73-0603	HPCI TRB EXH CHECK	2	3-47E812-1/E-7	AC	20	CK	SELF	C	O/C	CV/LT	N/A	CM
234	3-CKV-73-0609	HPCI TRB EXH DRN CHECK	2	3-47E812-1/D-6	AC	2	CK	SELF	C	C	CV/LT	N/A	CM
235	3-CKV-73-0625	HPCI PMP GLD SEAL RTN	2	3-47E812-1/B-4	C	2	CK	SELF	C	C	CV	N/A	CM
236	3-CKV-73-0633	HPCI TRB EXH VAC RLF	2	3-47E812-1/D-7	C	2	CK	SELF	C	O/C	CV	N/A	CM
237	3-CKV-73-0634	HPCI TRB EXH VAC RLF	2	3-47E812-1/D-7	C	2	CK	SELF	C	O/C	CV	N/A	CM
238	3-CKV-73-0635	HPCI TRB EXH VAC RLF	2	3-47E812-1/E-7	C	2	CK	SELF	C	O/C	CV	N/A	CM
239	3-CKV-73-0636	HPCI TRB EXH VAC RLF	2	3-47E812-1/E-7	C	2	CK	SELF	C	O/C	CV	N/A	CM
240	3-RPD-73-0713	HPCI TRB EXH RP DISC	2	3-47E812-1/D-4	D	16	RD	SELF	C	O	VI	N/A	O/5YR
241	3-FCV-74-0001	RHR PMP A PSC SUCTION	2	3-47E811-1/B-5	B	24	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
242	3-FCV-74-0002	RHR PMP A SD CLG SUCTION	2	3-47E811-1/C-6	B	20	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
243	3-FCV-74-0007	RHR LOOP I MIN FLOW	2	3-47E811-1/E-6	B	4	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
244	3-FCV-74-0012	RHR PMP C PSC SUCTION	2	3-47E811-1/D-5	B	24	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
245	3-FCV-74-0013	RHR PMP C SD CLG SUCTION	2	3-47E811-1/D-6	B	20	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
246	3-FCV-74-0024	RHR PMP B PSC SUCTION	2	3-47E811-1/B-4	B	24	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
247	3-FCV-74-0025	RHR PMP B SD CLG SUCTION	2	3-47E811-1/C-4	B	20	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
248	3-FCV-74-0030	RHR LOOP II MIN FLOW	2	3-47E811-1/E-3	B	4	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
249	3-FCV-74-0035	RHR PMP D PSC SUCTION	2	3-47E811-1/C-4	B	24	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
250	3-FCV-74-0036	RHR PMP D SD CLG SUCTION	2	3-47E811-1/D-4	B	20	GA	MO	C	O/C	Q VRPIL	N/A N/A	Q O/2YR
251	3-FCV-74-0047	RHR SD CLG OUTBD ISOL	1	3-47E811-1/E-5	A	20	GA	MO	C	O/C	Q LT VRPIL	CSDJ-03 N/A N/A	CSD O/OC O/2YR
252	3-FCV-74-0048	RHR SD CLG INBD ISOL	1	3-47E811-1/F-5	A	20	GA	MO	C	O/C	Q LT VRPIL	CSDJ-03 N/A N/A	CSD O/OC O/2YR
253	3-FCV-74-0052	RHR LOOP I THROTTLE	2	3-47E811-1/F-7	B	24	AN	MO	O	O	Q VRPIL	N/A N/A	Q O/2YR
254	3-FCV-74-0053	RHR LOOP I INJ	1	3-47E811-1/F-6	A	24	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
255	3-FCV-74-0054	RHR LP I TESTABLE CK	1	3-47E811-1/F-6	AC	24	CK	AO/SELF	C	O/C	CV/LT	N/A	CM
256	3-FCV-74-0057	RHR LOOP I PSC RTN	2	3-47E811-1/G-8	A	18	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
257	3-FCV-74-0058	RHR LOOP I PSC SPRAY	2	3-47E811-1/F-8	A	4	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
258	3-FCV-74-0059	RHR LOOP I PMP TEST RTN	2	3-47E811-1/F-8	A	12	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	SI/SR INTERVAL
259	3-FCV-74-0060	RHR LP I CNTMT SPRAY OUTBD ISOL	2	3-47E811-1/G-6	A	12	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
260	3-FCV-74-0061	RHR LP I CNTMT SPRAY INBD ISOL	2	3-47E811-1/G-5	A	12	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
261	3-FCV-74-0066	RHR LOOP II THROTTLE	2	3-47E811-1/F-3	B	24	AN	MO	O	O	Q VRPIL	N/A N/A	Q O/2YR
262	3-FCV-74-0067	RHR LOOP II INJ	1	3-47E811-1/F-3	A	24	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
263	3-FCV-74-0068	RHR LP II TESTABLE CK	1	3-47E811-1/F-4	AC	24	CK	AO/SELF	C	O/C	CV/LT	N/A	CM
264	3-FCV-74-0071	RHR LOOP II PSC RTN	2	3-47E811-1/G-2	A	18	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
265	3-FCV-74-0072	RHR LOOP II PSC SPRAY	2	3-47E811-1/F-2	A	4	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
266	3-FCV-74-0073	RHR LOOP II PMP TEST RTN	2	3-47E811-1/F-2	A	12	GL	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
267	3-FCV-74-0074	RHR LP II CNTMT SPRAY OUTBD ISOL	2	3-47E811-1/G-4	A	12	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
268	3-FCV-74-0075	RHR LP II CNTMT SPRAY INBD ISOL	2	3-47E811-1/G-5	A	12	GA	MO	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
269	3-FCV-74-0096	RHR PMP A SUCTION XTIE	2	3-47E811-1/C-5	B	14	GA	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
270	3-FCV-74-0097	RHR PMP C SUCTION XTIE	2	3-47E811-1/C-5	B	14	GA	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
271	3-FCV-74-0100	RHR HTX A-C XTIE TO U2 B-D RHR HTX	2	3-47E811-1/C-8	B	10	GA	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
272	3-RFV-74-0509A	RHR PMP A SUCTION RLF	2	3-47E811-1/B-6	C	1	RV	SELF	C	O	RV	N/A	COND
273	3-RFV-74-0509B	RHR PMP B SUCTION RLF	2	3-47E811-1/B-4	C	1	RV	SELF	C	O	RV	N/A	COND
274	3-RFV-74-0509C	RHR PMP C SUCTION RLF	2	3-47E811-1/D-6	C	1	RV	SELF	C	O	RV	N/A	COND
275	3-RFV-74-0509D	RHR PMP D SUCTION RLF	2	3-47E811-1/D-4	C	1	RV	SELF	C	O	RV	N/A	COND
276	3-CKV-74-0559A	RHR PMP A DISCH CK	2	3-47E811-1/B-7	C	20	CK	SELF	C	O/C	CV	N/A	Q
277	3-CKV-74-0559B	RHR PMP B DISCH CK	2	3-47E811-1/B-3	C	20	CK	SELF	C	O/C	CV	N/A	Q
278	3-CKV-74-0559C	RHR PMP C DISCH CK	2	3-47E811-1/D-7	C	20	CK	SELF	C	O/C	CV	N/A	Q
279	3-CKV-74-0559D	RHR PMP D DISCH CK	2	3-47E811-1/D-3	C	20	CK	SELF	C	O/C	CV	N/A	Q
280	3-CKV-74-0560A	RHR PMP A MIN FLOW CK	2	3-47E811-1/B-6	C	3	CK	SELF	C	O/C	CV	N/A	CM
281	3-CKV-74-0560B	RHR PMP B MIN FLOW CK	2	3-47E811-1/B-3	C	3	CK	SELF	C	O/C	CV	N/A	CM
282	3-CKV-74-0560C	RHR PMP C MIN FLOW CK	2	3-47E811-1/D-7	C	3	CK	SELF	C	O/C	CV	N/A	CM
283	3-CKV-74-0560D	RHR PMP D MIN FLOW CK	2	3-47E811-1/D-3	C	3	CK	SELF	C	O/C	CV	N/A	CM
284	3-RFV-74-0578A	RHR HTX A RLF	2	3-47E811-1/B-7	C	1	RV	SELF	C	O	RV	N/A	COND
285	3-RFV-74-0578B	RHR HTX B RLF	2	3-47E811-1/B-2	C	1	RV	SELF	C	O	RV	N/A	COND
286	3-RFV-74-0578C	RHR HTX C RLF	2	3-47E811-1/C-8	C	1	RV	SELF	C	O	RV	N/A	COND
287	3-RFV-74-0578D	RHR HTX D RLF	2	3-47E811-1/C-2	C	1	RV	SELF	C	O	RV	N/A	COND
288	3-RFV-74-0587A	RHR LP I DISCH HDR RLF	2	3-47E811-1/G-7	C	1	RV	SELF	C	O	RV	N/A	COND
289	3-RFV-74-0587B	RHR LP II DISCH RLF	2	3-47E811-1/G-3	C	1	RV	SELF	C	O	RV	N/A	COND
290	3-RFV-74-0659	RHR SD CLG SPLY RLF	2	3-47E811-1/E-5	C	1	RV	SELF	C	O	RV	N/A	COND
291	3-CKV-74-0661	RHR THERMAL RLF CK	1	3-47E811-1/F-5	AC	3/4	CK	SELF	C	O/C	CV/LT	N/A	CM
292	3-CKV-74-0662	RHR THERMAL RLF CK	1	3-47E811-1/F-5	AC	3/4	CK	SELF	C	O/C	CV/LT	N/A	CM
293	3-HCV-74-0722	PSC DRN ISOL	2	3-47E811-1/E-4	A	8	GA	H	C	C	LT	N/A	O/OC
294	3-CKV-74-0792	RHR LP I KEEP FILL CK	2	3-47E811-1/H-4	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
295	3-CKV-74-0802	RHR LP II KEEP FILL CK	2	3-47E811-1/H-4	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
296	3-CKV-74-0803	RHR LP II KEEP FILL CK	2	3-47E811-1/H-3	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
297	3-CKV-74-0804	RHR LP I KEEP FILL CK	2	3-47E811-1/H-6	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
298	3-FCV-75-0009	CS LOOP I MIN FLOW	2	3-47E814-1/F-5	B	3	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
299	3-FCV-75-0022	CS LOOP I PMP TEST	2	3-47E814-1/F-5	B	10	GL	MO	C	C	Q VRPIL	N/A N/A	Q O/2YR
300	3-FCV-75-0023	CS LOOP I INJ	2	3-47E814-1/F-6	B	12	GA	MO	O	O	Q VRPIL	N/A N/A	Q O/2YR
301	3-FCV-75-0025	CS LOOP I INJ	1	3-47E814-1/F-6	A	12	GA	MO	C	O	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
302	3-FCV-75-0026	CS LOOP I INJECTION	1	3-47E814-1/F-7	AC	12	CK	SELF	C	O/C	CV/LT	N/A	CM
303	3-FCV-75-0037	CS LOOP II MIN FLOW	2	3-47E814-1/F-4	B	3	GA	MO	O	O/C	Q VRPIL	N/A N/A	Q O/2YR
304	3-FCV-75-0050	CS LOOP II PMP TEST	2	3-47E814-1/F-4	B	10	GL	MO	C	C	Q VRPIL	N/A N/A	Q O/2YR
305	3-FCV-75-0051	CS LOOP II INJ	2	3-47E814-1/G-6	B	12	GA	MO	O	O	Q VRPIL	N/A N/A	Q O/2YR
306	3-FCV-75-0053	CS LOOP II INJ	1	3-47E814-1/G-6	A	12	GA	MO	C	O	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
307	3-FCV-75-0054	CS LOOP II INJECTION	1	3-47E814-1/G-7	AC	12	CK	SELF	C	O/C	CV/LT	N/A	CM

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FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	SI/SR INTERVAL
308	3-FCV-75-0057	CS DRN PMP A INBD ISOL	2	3-47E814-1/B-4	A	3	GL	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
309	3-FCV-75-0058	CS DRN PMP A OUTBD ISOL	2	3-47E814-1/B-5	A	3	GL	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
310	3-RFV-75-0507A	CS PMP A SUCTION RLF	2	3-47E814-1/C-4	C	1	RV	SELF	C	O	RV	N/A	COND
311	3-RFV-75-0507B	CS PMP B SUCTION RLF	2	3-47E814-1/C-2	C	1	RV	SELF	C	O	RV	N/A	COND
312	3-RFV-75-0507C	CS PMP C SUCTION RLF	2	3-47E814-1/C-6	C	1	RV	SELF	C	O	RV	N/A	COND
313	3-RFV-75-0507D	CS PMP D SUCTION RLF	2	3-47E814-1/C-4	C	1	RV	SELF	C	O	RV	N/A	COND
314	3-CKV-75-0537A	CS PMP A DISCH CK	2	3-47E814-1/D-4	C	12	CK	SELF	C	O	CV	N/A	Q
315	3-CKV-75-0537B	CS PMP B DISCH CK	2	3-47E814-1/D-3	C	12	CK	SELF	C	O	CV	N/A	Q
316	3-CKV-75-0537C	CS PMP C DISCH CK	2	3-47E814-1/D-6	C	12	CK	SELF	C	O	CV	N/A	Q
317	3-CKV-75-0537D	CS PMP D DISCH CK	2	3-47E814-1/D-4	C	12	CK	SELF	C	O	CV	N/A	Q
318	3-RFV-75-0543A	CS LP I DISCH RLF	2	3-47E814-1/F-4	C	1	RV	SELF	C	O	RV	N/A	COND
319	3-RFV-75-0543B	CS LP II DISCH RLF	2	3-47E814-1/E-3	C	1	RV	SELF	C	O	RV	N/A	COND
320	3-CKV-75-0570A	CS PMP A MIN FLOW CK	2	3-47E814-1/D-5	C	3	CK	SELF	C	O/C	CV	N/A	CM
321	3-CKV-75-0570B	CS PMP B MIN FLOW CK	2	3-47E814-1/D-2	C	3	CK	SELF	C	O/C	CV	N/A	CM
322	3-CKV-75-0570C	CS PMP C MIN FLOW CK	2	3-47E814-1/D-6	C	3	CK	SELF	C	O/C	CV	N/A	CM
323	3-CKV-75-0570D	CS PMP D MIN FLOW CK	2	3-47E814-1/D-4	C	3	CK	SELF	C	O/C	CV	N/A	CM
324	3-CKV-75-0606	CS LP I KEEP FILL CK	2	3-47E814-1/F-5	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
325	3-CKV-75-0607	CS LP I KEEP FILL CK	2	3-47E814-1/F-5	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
326	3-CKV-75-0609	CS LP II KEEP FILL CK	2	3-47E814-1/H-4	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
327	3-CKV-75-0610	CS LP II KEEP FILL CK	2	3-47E814-1/H-4	AC	2	CK	SELF	O/C	C	CV/LT	N/A	CM
328	3-FCV-76-0017	DW N2 MAKEUP OUTBD ISOL	2	3-47E860-1/E-5	A	2	BF	AO	O/C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
329	3-FCV-76-0018	DW N2 MAKEUP INBD ISOL	2	3-47E860-1/D-5	A	2	BF	AO	O/C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
330	3-FCV-76-0019	PSC N2 MAKEUP INBD ISOL	2	3-47E860-1/D-5	A	2	BF	AO	O/C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
331	3-FCV-76-0024	DW N2 PURGE OUTBD ISOL	2	3-47E860-1/D-4	A	10	BF	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
332	3-FSV-76-0049	DW H2 ANALYZER A INBD ISOL	2	3-47E3610-76-3/K-2	A	00	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
333	3-FSV-76-0050	DW H2 ANALYZER A OUTBD ISOL	2	3-47E3610-76-3/K-3	A	00	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
334	3-FSV-76-0051	DW O2 ANALYZER A INBD ISOL	2	3-47E3610-76-3/H-2	A	00	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
335	3-FSV-76-0052	DW O2 ANALYZER A OUTBD ISOL	2	3-47E3610-76-3/H-3	A	00	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
336	3-FSV-76-0053	PSC O2 ANALYZER A INBD ISOL	2	3-47E3610-76-3/I-2	A	00	GA	S	C	O/C	Q LT	N/A N/A	Q O/OC
337	3-FSV-76-0054	PSC O2 ANALYZER A OUTBD ISOL	2	3-47E3610-76-3/I-3	A	1/2	GA	S	C	O/C	Q LT	N/A N/A	Q O/OC
338	3-FSV-76-0055	PSC H2 ANALYZER A INBD ISOL	2	3-47E3610-76-3/J-2	A	1/2	GA	S	C	O/C	Q LT	N/A N/A	Q O/OC
339	3-FSV-76-0056	PSC H2 ANALYZER A OUTBD ISOL	2	3-47E3610-76-3/J-3	A	1/2	GA	S	C	O/C	Q LT	N/A N/A	Q O/OC
340	3-FSV-76-0057	PSC RTN INBD ISOL	2	3-47E3610-76-3/I-2	A	1/2	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
341	3-FSV-76-0058	PSC RTN OUTBD ISOL	2	3-47E3610-76-3/I-3	A	1/2	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
342	3-FSV-76-0059	DW H2 ANALYZER B INBD ISOL	2	3-47E3610-76-3/F-2	A	1/2	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
343	3-FSV-76-0060	DW H2 ANALYZER B OUTBD ISOL	2	3-47E3610-76-3/F-3	A	1/2	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
344	3-FSV-76-0061	DW O2 ANALYZER B INBD ISOL	2	3-47E3610-76-3/C-2	A	1/2	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
345	3-FSV-76-0062	DW O2 ANALYZER B OUTBD ISOL	2	3-47E3610-76-3/C-3	A	1/2	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
346	3-FSV-76-0063	PSC O2 ANALYZER B INBD ISOL	2	3-47E3610-76-3/C-2	A	1/2	GA	S	C	O/C	Q LT	N/A N/A	Q O/OC
347	3-FSV-76-0064	PSC O2 ANALYZER B OUTBD ISOL	2	3-47E3610-76-3/C-3	A	1/2	GA	S	C	O/C	Q LT	N/A N/A	Q O/OC
348	3-FSV-76-0065	PSC H2 ANALYZER B INBD ISOL	2	3-47E3610-76-3/E-2	A	1/2	GA	S	C	O/C	Q LT	N/A N/A	Q O/OC
349	3-FSV-76-0066	PSC H2 ANALYZER B OUTBD ISOL	2	3-47E3610-76-3/E-3	A	1/2	GA	S	C	O/C	Q LT	N/A N/A	Q O/OC
350	3-FSV-76-0067	PSC RTN INBD ISOL	2	3-47E3610-76-3/D-2	A	1/2	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
351	3-FSV-76-0068	PSC RTN OUTBD ISOL	2	3-47E3610-76-3/D-3	A	1/2	GA	S	O	O/C	Q LT	N/A N/A	Q O/OC
352	3-CKV-76-0653	TIP INDEXER PURGE CK	2	3-47E600-14/B-5	AC	1/4	CK	SELF	C	C	CV/LT	N/A	CM
353	3-FCV-77-0002A	DW FLOOR DRN SUMP INBD ISOL	2	3-47E852-1/C-4	A	3	GA	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	S/SR INTERVAL
354	3-FCV-77-0002B	DW FLOOR DRN SUMP OUTBD ISOL	2	3-47E852-1/C-4	A	3	GA	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
355	3-FCV-77-0015A	DW EQ DRN SUMP INBD ISOL	2	3-47E852-2/D-3	A	3	GA	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
356	3-FCV-77-0015B	DW EQ DRN SUMP OUTBD ISOL	2	3-47E852-2/D-3	A	3	GA	AO	O	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
357	3-FCV-78-0061	RHR TO FPC SPLY	2	3-47E855-1/H-6	B	6	GL	MO	C	O	Q VRPIL	N/A N/A	Q O/2YR
358	3-FCV-78-0062	RHR TO FPC SPLY	3	3-47E855-1/H-5	B	6	GA	H	C	O	Q VRPIL	N/A N/A	Q O/2YR
359	3-SHV-78-0524	FUEL POOL DIFF A SHV	3	3-47E855-1/H-5	B	8	GL	H	LO	C	Q	N/A	Q
360	3-CKV-78-0526	FUEL POOL DIFF A SPLY	3	3-47E855-1/G-5	C	8	CK	SELF	O/C	O	CV	N/A	CM
361	3-FSV-84-0008A	DW N2 SPLY TRN A	2	3-47E862-1/E-7	A	2	GA	S	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
362	3-FSV-84-0008B	PSC N2 SPLY TRN A	2	3-47E862-1/E-5	A	2	GA	S	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
363	3-FSV-84-0008C	PSC N2 SPLY TRN B	2	3-47E862-1/E-5	A	2	GA	S	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
364	3-FSV-84-0008D	DW N2 SPLY TRN B	2	3-47E862-1/E-5	A	2	GA	S	C	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
365	3-FCV-84-0019	DW/PSC DISCH TO SBTG	2	3-47E862-1/G-6	A	2	GA	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
366	3-FCV-84-0020	DW/PSC DISCH TO SBTG	2	3-47E862-1/G-6	A	2	GA	AO	C	C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
367	3-FSV-84-0048	CAD XTIE TO DW CONT AIR ISOL	2	3-47E862-1/E-7	A	1	GA	S	C	O/C O/C C	Q/FS VRPIL LT	N/A N/A N/A	Q O/OC O/OC
368	3-FSV-84-0049	CAD XTIE TO DW CONT AIR ISOL	2	3-47E862-1/E-4	A	1	GA	S	C	O/C O/C C	Q/FS VRPIL LT	N/A N/A N/A	Q O/OC O/OC
369	3-CKV-84-0600	DW SPLY CHECK A	2	3-47E862-1/E-7	AC	2	CK	SELF	C	O/C	CV/LT	N/A	CM
370	3-CKV-84-0601	PSC SPLY CHECK A	2	3-47E862-1/E-6	AC	2	CK	SELF	C	O/C	CV/LT	N/A	CM
371	3-CKV-84-0602	DW SPLY CHECK B	2	3-47E862-1/E-5	AC	2	CK	SELF	C	O/C	CV/LT	N/A	CM
372	3-CKV-84-0603	PSC SPLY CHECK B	2	3-47E862-1/E-5	AC	2	CK	SELF	C	O/C	CV/LT	N/A	CM
373	3-BYV-84-0683	3-FSV-84-48 BYPASS	2	3-47E862-1/E-7	A	1	GA	H	LC	C	Q LT	N/A N/A	Q O/OC
374	3-BYV-84-0686	3-FSV-84-49 BYPASS	2	3-47E862-1/E-4	A	1	GA	H	LC	C	Q LT	N/A N/A	Q O/OC
375	3-FCV-85-0037C	SDIV DRN ISOL WEST	2	3-47E820-6/B-6	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
376	3-FCV-85-0037D	SDIV DRN ISOL WEST	N	3-47E820-6/B-6	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
377	3-FCV-85-0037E	SDIV DRN ISOL EAST	2	3-47E820-6/B-3	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
378	3-FCV-85-0037F	SDIV DRN ISOL EAST	N	3-47E820-6/B-3	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
379	3-FCV-85-0039A	SCRM INLET(185 TOTAL)	1	3-47E820-2/C-8	B	1	GL	AO	C	O	Q/FS	PV-2	O/16W
380	3-FCV-85-0039B	SCRM OUTLET(185 TOTAL)	1	3-47E820-2/C-7	B	3/4	GL	AO	C	O	Q/FS	PV-2	O/16W
381	3-FCV-85-0082	SCRM DISCH HDR VT W	N	3-47E820-6/G-7	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
382	3-FCV-85-0082A	SCRM DISCH HDR VT W	2	3-47E820-6/G-7	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
383	3-FCV-85-0083	SCRM DISCH HDR VT E	N	3-47E820-6/G-3	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
384	3-FCV-85-0083A	SCRM DISCH HDR VT E	2	3-47E820-6/G-3	B	2	GL	AO	O	C	Q/FS VRPIL	N/A N/A	Q O/2YR
385	3-CKV-85-0589	CHRG WTR(185 TOTAL)	2	3-47E820-2/C-9	C	1/2	CK	SELF	C	O/C	CV	N/A	CM
386	3-CKV-85-0597	CLG WTR(185 TOTAL)	1	3-47E820-2/C-9	C	1/2	CK	SELF	C	C	CV	N/A	CM
387	3-CKV-85-0616	SCRM OUTLT(185 TOTAL)	2	3-47E820-2/E-7	C	3/4	CK	SELF	C	O	CV	N/A	CM
388	3-FSV-90-0254A	DW LEAK DET ISOL	2	3-47E610-90-1/G-3	A	1	GA	S	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
389	3-FSV-90-0254B	DW LEAK DET ISOL	2	3-47E610-90-1/G-3	A	1	GA	S	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
390	3-FSV-90-0255	DW LEAK DET ISOL	2	3-47E610-90-1/G-3	A	1	GA	S	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
391	3-FSV-90-0257A	DW LEAK DET ISOL	2	3-47E610-90-1/H-3	A	1	GA	S	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX E - VALVE MATRIX

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VLV TYPE	ACTUATOR	NORMAL STATUS	SAFETY STATUS	TEST REQD	RELIEF REQUEST/RO/CSDJ	SI/SR INTERVAL
392	3-FSV-90-0257B	DW LEAK DET ISOL	2	3-47E610-90-1/H-3	A	1	GA	S	O	O/C	Q LT VRPIL	N/A N/A N/A	Q O/OC O/2YR
393	3-FCV-94-0501	TIP INDEXER BALL VLV	2	3-47E600-14/A-8	A	3/8	BA	S	C	C	Q LT/VRPIL	N/A N/A N/A	Q O/OC
394	3-FCV-94-0502	TIP INDEXER BALL VLV	2	3-47E600-14/A-8	A	3/8	BA	S	C	C	Q LT/VRPIL	N/A N/A N/A	Q O/OC
395	3-FCV-94-0503	TIP INDEXER BALL VLV	2	3-47E600-14/A-8	A	3/8	BA	S	C	C	Q LT/VRPIL	N/A N/A N/A	Q O/OC
396	3-FCV-94-0504	TIP INDEXER BALL VLV	2	3-47E600-14/A-8	A	3/8	BA	S	C	C	Q LT/VRPIL	N/A N/A N/A	Q O/OC
397	3-FCV-94-0505	TIP INDEXER BALL VLV	2	3-47E600-14/A-8	A	3/8	BA	S	C	C	Q LT/VRPIL	N/A N/A N/A	Q O/OC

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX F - PASSIVE VALVE LIST

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VALVE TYPE	NORMA L STATUS	SAFETY STATUS
1	1-FCV-01-0057	MS DRN TO COND ISOL	2	1-47E801-1/F-3	B	3	GL	O	O
2	1-FCV-01-0145	STM SEAL BYPASS ISOL	2	1-47E807-2/C-6	B	4	GL	C	C
3	1-FCV-01-0154	AUX STM TO STM SL ISV	2	1-47E801-2/B-5	B	4	GA	C	C
4	1-FCV-01-0168	MS LN A DRN ISOL	2	1-47E801-1/F-4	B	2	GA	O	O
5	1-FCV-01-0169	MS LN B DRN ISOL	2	1-47E801-1/F-4	B	2	GA	O	O
6	1-FCV-01-0170	MS LN C DRN ISOL	2	1-47E801-1/F-4	B	2	GA	O	O
7	1-FCV-01-0171	MS LN D DRN ISOL	2	1-47E801-1/F-4	B	2	GA	O	O
8	1-FCV-06-0100	TSV #1 DRN ISOL	2	1-47E807-1/G-8	B	1	GL	C	C
9	1-FCV-06-0101	TSV #2 DRN ISOL	2	1-47E807-1/F-8	B	1	GL	C	C
10	1-FCV-06-0102	TSV #3 DRN ISOL	2	1-47E807-1/E-8	B	1	GL	C	C
11	1-FCV-06-0103	TSV #4 DRN ISOL	2	1-47E807-1/D-8	B	1	GL	C	C
12	1-FCV-06-0122	RFPT 2A STOP VLV DRN	2	1-47E807-2/G-6	B	1-1/2	GL	C	C
13	1-FCV-06-0127	RFPT 2B STOP VLV DRN	2	1-47E807-2/G-4	B	1-1/2	GL	C	C
14	1-FCV-06-0132	RFPT 2C STOP VLV DRN	2	1-47E801-2/G-2	B	1-1/2	GL	C	C
15	1-FCV-06-0153	RFPT 2A STOP VLV DRN	2	1-47E807-2/G-6	B	1-1/2	GL	C	C
16	1-FCV-06-0155	RFPT 2B STOP VLV DRN	2	1-47E807-2/G-3	B	1-1/2	GL	C	C
17	1-FCV-06-0157	RFPT 2C STOP VLV DRN	2	1-47E807-2/G-1	B	1-1/2	GL	C	C
18	1-SHV-12-0623	AUX BLR STM SUPPLY TO RCIC ISV	2	1-47E815-4/G-6	B	1	GL	C	C
19	1-BYV-12-0625	AUX BLR STM SUPPLY TO RCIC ISV	2	1-47E815-4/F-6	B	1	GL	C	C
20	1-SHV-12-0635	AUX BLR STM SUPPLY TO HPCI ISV	2	1-47E815-4/F-2	B	1	GL	C	C
21	1-BYV-12-0637	AUX BLR STM SUPPLY TO HPCI ISV	2	1-47E815-4/F-2	B	1	GL	C	C
22	1-BYV-12-0822	AUX BLR STM SUPPLY TO HPCI ISV	2	0-47E815-1/G-1	B	1	GL	C	C
23	1-SHV-24-0706	RCW TO LP I RHR RM CLRS	3	1-47E844-2/F-8	B	3	GA	C	C
24	1-SHV-24-0729	RCW TO LP II RHR RM CLRS	3	1-47E844-2/F-4	B	3	GA	C	C
25	1-FSV-43-0040	PASS CNTMT ISOL	2	1-47E867-3/F-2	A	1/2	GL	C	C
26	1-FSV-43-0042	PASS CNTMT ISOL	2	1-47E867-3/F-2	A	1/2	GL	C	C
27	1-FSV-43-0050	PASS CNTMT ISOL	2	1-47E867-3/G-2	A	1/2	GL	C	C
28	1-FSV-43-0056	PASS CNTMT ISOL	2	1-47E867-3/G-2	A	1/2	GL	C	C
29	1-FSV-43-0070	PASS CNTMT ISOL	1	1-47E867-3/B-2	A	1/2	GL	C	C
30	1-ISV-43-0631	MS SAMPLE ISV	2	1-47E610-43-1/D-1	B	1/2	GL	C	C
31	1-ISV-43-0631A	MS SAMPLE ISV	2	1-47E610-43-1/D-1	B	1/2	GL	C	C
32	1-ISV-43-0632	MS SAMPLE ISV	2	1-47E610-43-1/D-1	B	1/2	GL	C	C
33	1-SHV-63-0500	SLC TANK ISOLATION	2	1-47E854-1/G-2	B	2-1/2	GA	O	O
34	1-SHV-63-0502	SLC DEMIN SUPPLY ISOLATION	2	1-47E854-1/F-2	B	1	GL	C	C
35	1-SHV-63-0506	SLC PUMP 1A SUCTION ISOLATION	2	1-47E854-1/D-5	B	2-1/2	GA	O	O
36	1-SHV-63-0507	SLC PUMP 1B SUCTION ISOLATION	2	1-47E854-1/D-4	B	2-1/2	GA	O	O
37	1-SHV-63-0509	SLC DEMIN SUPPLY ISOLATION	2	1-47E854-1/D-4	B	1	GL	C	C
38	1-SHV-63-0511	SLC DEMIN SUPPLY ISOLATION	2	1-47E854-1/D-4	B	1	GL	C	C
39	1-SHV-63-0515	SLC PUMP 1A DISCHARGE ISOLATION	2	1-47E854-1/E-5	B	2-1/2	GA	O	O
40	1-SHV-63-0517	SLC PUMP 1B DISCHARGE ISOLATION	2	1-47E854-1/E-4	B	2-1/2	GA	O	O
41	1-SHV-63-0518	SLC TEST LINE ISOLATION	2	1-47E854-1/F-6	B	1-1/2	GL	C	C
42	1-DRV-63-0522	SLC TEST LINE ISOLATION	2	1-47E854-1/D-6	B	1	GL	C	C
43	1-SHV-63-0524	SLC INJECTION ISOLATION	1	1-47E854-1/E-7	B	1-1/2	GA	O	O
44	1-FCV-64-0017	DW SPLY CNTMT ISOL	2	1-47E865-1/C-6	A	20	BF	C	C
45	1-FCV-64-0018	DW SPLY CNTMT ISOL	2	1-47E865-1/C-5	A	20	BF	C	C
46	1-FCV-64-0019	PSC SPLY CNTMT ISOL	2	1-47E865-1/C-6	A	20	BF	C	C
47	1-FCV-64-0029	DW EXH CNTMT ISOL	2	1-47E865-1/E-3	A	18	BF	C	C
48	1-FCV-64-0030	PSC VAC RLF ISOL	2	1-47E865-1/E-3	A	18	BF	C	C
49	1-FCV-64-0032	PSC EXH OUTBD CNTMT ISOL	2	1-47E865-1/C-2	A	18	BF	C	C
50	1-FCV-64-0033	PSC EXH INBD CNTMT ISOL	2	1-47E865-1/C-2	A	18	BF	C	C
51	1-SHV-71-0520	RCIC PSC VACUUM BKR ISOL	2	1-47E813-1/C-6	B	2	GL	O	O
52	1-SHV-71-0601	RCIC PSC VACUUM BKR ISOL	2	1-47E813-1/C-6	B	3	GA	O	O
53	1-SHV-73-0534	HPCI PSC VACUUM BKR ISOL	2	1-47E812-1/D-6	B	2	GL	O	O
54	1-SHV-73-0642	HPCI PSC VACUUM BKR ISOL	2	1-47E812-1/D-6	B	3	GA	O	O
55	1-SHV-73-0642	HPCI PSC VACUUM BKR ISOL	2	1-47E812-1/D-6	B	3	GA	O	O
56	1-SHV-85-0850	CRD BACKFILL SPLY TO RVLIS ISOL	2	1-47E803-5/F-8	B	1/2	GL	O	O
57	1-SHV-85-0852	CRD BACKFILL SPLY TO RVLIS ISOL	2	1-47E803-5/F-7	B	1/2	GL	O	O
58	1-SHV-85-0854	CRD BACKFILL SPLY TO RVLIS ISOL	2	1-47E803-5/H-2	B	1/2	GL	O	O
59	1-SHV-85-0856	CRD BACKFILL SPLY TO RVLIS ISOL	2	1-47E803-5/H-1	B	1/2	GL	O	O
60	2-FCV-01-0057	MS DRN TO COND ISOL	2	2-47E801-1/F-3	B	3	GL	O	O
61	2-FCV-01-0145	STM SEAL BYPASS ISOL	2	2-47E807-2/C-6	B	4	GL	C	C
62	2-FCV-01-0154	AUX STM TO STM SL ISV	2	2-47E801-2/B-5	B	4	GA	C	C
63	2-FCV-06-0100	TSV #1 DRN ISOL	2	2-47E807-1/G-8	B	1	GL	C	C
64	2-FCV-06-0101	TSV #2 DRN ISOL	2	2-47E807-1/F-8	B	1	GL	C	C
65	2-FCV-06-0102	TSV #3 DRN ISOL	2	2-47E807-1/E-8	B	1	GL	C	C
66	2-FCV-06-0103	TSV #4 DRN ISOL	2	2-47E807-1/D-8	B	1	GL	C	C
67	2-FCV-06-0122	RFPT 2A STOP VLV DRN	2	2-47E807-2/G-6	B	1-1/2	GL	C	C
68	2-FCV-06-0127	RFPT 2B STOP VLV DRN	2	2-47E807-2/G-4	B	1-1/2	GL	C	C
69	2-FCV-06-0132	RFPT 2C STOP VLV DRN	2	2-47E801-2/G-2	B	1-1/2	GL	C	C
70	2-FCV-06-0153	RFPT 2A STOP VLV DRN	2	2-47E807-2/G-6	B	1-1/2	GL	C	C
71	2-FCV-06-0155	RFPT 2B STOP VLV DRN	2	2-47E807-2/G-3	B	1-1/2	GL	C	C
72	2-FCV-06-0157	RFPT 2C STOP VLV DRN	2	2-47E807-2/G-1	B	1-1/2	GL	C	C
73	2-SHV-12-0623	AUX BLR STM SUPPLY TO RCIC ISV	2	2-47E815-4/G-6	B	1	GL	C	C
74	2-BYV-12-0625	AUX BLR STM SUPPLY TO RCIC ISV	2	2-47E815-4/F-6	B	1	GL	C	C
75	2-SHV-12-0635	AUX BLR STM SUPPLY TO HPCI ISV	2	2-47E815-4/F-2	B	1	GL	C	C

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX F - PASSIVE VALVE LIST

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VALVE TYPE	NORMA L STATUS	SAFETY STATUS
76	2-BYV-12-0637	AUX BLR STM SUPPLY TO HPCI ISV	2	2-47E815-4/F-2	B	1	GL	C	C
77	2-BYV-12-0822	AUX BLR STM SUPPLY TO HPCI ISV	2	0-47E815-1/G-1	B	1	GL	C	C
78	2-SHV-24-0706	RCW TO LP I RHR RM CLRS	3	2-47E844-2/E-3	B	3	GA	C	C
79	2-SHV-24-0729	RCW TO LP II RHR RM CLRS	3	2-47E844-2/F-2	B	3	GA	C	C
80	2-FSV-43-0040	PASS CNTMT ISOL	2	2-47E867-3/F-2	A	1/2	GL	C	C
81	2-FSV-43-0042	PASS CNTMT ISOL	2	2-47E867-3/F-2	A	1/2	GL	C	C
82	2-FSV-43-0050	PASS CNTMT ISOL	2	2-47E867-3/G-2	A	1/2	GL	C	C
83	2-FSV-43-0056	PASS CNTMT ISOL	2	2-47E867-3/G-2	A	1/2	GL	C	C
84	2-FSV-43-0070	PASS CNTMT ISOL	1	2-47E867-3/B-2	A	1/2	GL	C	C
85	2-ISV-43-0631	MS SAMPLE ISV	2	2-47E610-43-1/D-1	B	1/2	GL	C	C
86	2-ISV-43-0631A	MS SAMPLE ISV	2	2-47E610-43-1/D-1	B	1/2	GL	C	C
87	2-ISV-43-0632	MS SAMPLE ISV	2	2-47E610-43-1/D-1	B	1/2	GL	C	C
88	2-SHV-63-0500	SLC TANK ISOLATION	2	2-47E854-1/G-2	B	2-1/2	GA	O	O
89	2-SHV-63-0502	SLC DEMIN SUPPLY ISOLATION	2	2-47E854-1/F-2	B	1	GL	C	C
90	2-SHV-63-0506	SLC PUMP 2A SUCTION ISOLATION	2	2-47E854-1/D-5	B	2-1/2	GA	O	O
91	2-SHV-63-0507	SLC PUMP 2B SUCTION ISOLATION	2	2-47E854-1/D-4	B	2-1/2	GA	O	O
92	2-SHV-63-0509	SLC DEMIN SUPPLY ISOLATION	2	2-47E854-1/D-4	B	1	GL	C	C
93	2-SHV-63-0511	SLC DEMIN SUPPLY ISOLATION	2	2-47E854-1/D-4	B	1	GL	C	C
94	2-SHV-63-0515	SLC PUMP 2A DISCHARGE ISOLATION	2	2-47E854-1/E-5	B	2-1/2	GA	O	O
95	2-SHV-63-0517	SLC PUMP 2B DISCHARGE ISOLATION	2	2-47E854-1/E-4	B	2-1/2	GA	O	O
96	2-SHV-63-0518	SLC TEST LINE ISOLATION	2	2-47E854-1/F-6	B	1-1/2	GL	C	C
97	2-DRV-63-0522	SLC TEST LINE ISOLATION	2	2-47E854-1/D-6	B	1	GL	C	C
98	2-SHV-63-0524	SLC INJECTION ISOLATION	1	2-47E854-1/E-7	B	1-1/2	GA	O	O
99	2-FCV-64-0017	DW SPLY CNTMT ISOL	2	2-47E2865-12/H-7	A	20	BF	C	C
100	2-FCV-64-0018	DW SPLY CNTMT ISOL	2	2-47E2865-12/B-6	A	20	BF	C	C
101	2-FCV-64-0019	PSC SPLY CNTMT ISOL	2	2-47E2865-12/H-6	A	20	BF	C	C
102	2-FCV-64-0029	DW EXH CNTMT ISOL	2	2-47E2865-12/E-1	A	18	BF	C	C
103	2-FCV-64-0030	PSC VAC RLF ISOL	2	2-47E2865-12/E-4	A	18	BF	C	C
104	2-FCV-64-0032	PSC EXH OUTBD CNTMT ISOL	2	2-47E2865-12/B-3	A	18	BF	C	C
105	2-FCV-64-0033	PSC EXH INBD CNTMT ISOL	2	2-47E2865-12/C-3	A	18	BF	C	C
106	2-SHV-71-0520	RCIC PSC SUCTION ISOL	2	2-47E813-1/C-6	B	2	GL	O	O
107	2-SHV-71-0601	RCIC PSC VACUUM BKR ISOL	2	2-47E813-1/C-6	B	3	GA	O	O
108	2-SHV-73-0534	HPCI PSC VACUUM BKR ISOL	2	2-47E812-1/D-6	B	2	GL	O	O
109	2-SHV-73-0642	HPCI PSC VACUUM BKR ISOL	2	2-47E812-1/D-6	B	3	GA	O	O
110	2-SHV-85-0850	CRD BACKFILL SPLY TO RVLIS ISOL	2	2-47E803-5/F-8	B	1/2	GL	O	O
111	2-SHV-85-0852	CRD BACKFILL SPLY TO RVLIS ISOL	2	2-47E803-5/F-7	B	1/2	GL	O	O
112	2-SHV-85-0854	CRD BACKFILL SPLY TO RVLIS ISOL	2	2-47E803-5/H-2	B	1/2	GL	O	O
113	2-SHV-85-0856	CRD BACKFILL SPLY TO RVLIS ISOL	2	2-47E803-5/H-1	B	1/2	GL	O	O
114	3-FCV-01-0057	MS DRN TO COND ISOL	2	3-47E801-1/D-9	B	3	GL	O	O
115	3-FCV-01-0145	STM SEAL BYPASS ISOL	2	3-47E807-2/C-6	B	4	GL	C	C
116	3-FCV-01-0154	AUX STM TO STM SL ISV	2	3-47E801-2/B-5	B	4	GA	C	C
117	3-FCV-06-0100	TSV #1 DRN ISOL	2	3-47E807-1/G-8	B	1	GL	C	C
118	3-FCV-06-0101	TSV #2 DRN ISOL	2	3-47E807-1/F-8	B	1	GL	C	C
119	3-FCV-06-0102	TSV #3 DRN ISOL	2	3-47E807-1/E-8	B	1	GL	C	C
120	3-FCV-06-0103	TSV #4 DRN ISOL	2	3-47E807-1/D-8	B	1	GL	C	C
121	3-FCV-06-0122	RFPT 3A STOP VLV DRN	2	3-47E807-2/G-6	B	1-1/2	GL	C	C
122	3-FCV-06-0127	RFPT 3B STOP VLV DRN	2	3-47E807-2/G-4	B	1-1/2	GL	C	C
123	3-FCV-06-0132	RFPT 3C STOP VLV DRN	2	3-47E801-2/G-2	B	1-1/2	GL	C	C
124	3-FCV-06-0153	RFPT 3A STOP VLV DRN	2	3-47E807-2/G-6	B	1-1/2	GL	C	C
125	3-FCV-06-0155	RFPT 3B STOP VLV DRN	2	3-47E807-2/G-3	B	1-1/2	GL	C	C
126	3-FCV-06-0157	RFPT 3C STOP VLV DRN	2	3-47E807-2/G-1	B	1-1/2	GL	C	C
127	3-SHV-12-0623	AUX BLR STM SUPPLY TO RCIC ISV	2	3-47E815-5/A-4	B	1	GL	C	C
128	3-BYV-12-0625	AUX BLR STM SUPPLY TO RCIC ISV	2	3-47E815-5/A-4	B	1	GL	C	C
129	3-SHV-12-0635	AUX BLR STM SUPPLY TO HPCI ISV	2	3-47E815-5/B-4	B	1	GL	C	C
130	3-BYV-12-0637	AUX BLR STM SUPPLY TO HPCI ISV	2	3-47E815-5/B-4	B	1	GL	C	C
131	3-FSV-43-0040	PASS CNTMT ISOL	2	3-47E867-3/F-2	A	1/2	GL	C	C
132	3-FSV-43-0042	PASS CNTMT ISOL	2	3-47E867-3/F-2	A	1/2	GL	C	C
133	3-FSV-43-0050	PASS CNTMT ISOL	2	3-47E867-3/F-2	A	1/2	GL	C	C
134	3-FSV-43-0056	PASS CNTMT ISOL	2	3-47E867-3/F-2	A	1/2	GL	C	C
135	3-FSV-43-0070	PASS CNTMT ISOL	1	3-47E867-3/B-2	A	1/2	GL	C	C
136	3-ISV-43-0631	MS SAMPLE ISV	2	3-47E610-43-6/B-6	B	1/2	GL	C	C
137	3-ISV-43-0631A	MS SAMPLE ISV	2	3-47E610-43-6/C-6	B	1/2	GL	C	C
138	3-ISV-43-0632	MS SAMPLE ISV	2	3-47E610-43-6/C-6	B	1	GL	C	C
139	3-SHV-63-0500	SLC TANK ISOLATION	2	3-47E854-1/G-2	B	2-1/2	GA	O	O
140	3-SHV-63-0502	SLC DEMIN SUPPLY ISOLATION	2	3-47E854-1/F-2	B	1	GL	C	C
141	3-SHV-63-0506	SLC PUMP 1A SUCTION ISOLATION	2	3-47E854-1/D-5	B	2-1/2	GA	O	O
142	3-SHV-63-0507	SLC PUMP 1B SUCTION ISOLATION	2	3-47E854-1/D-4	B	2-1/2	GA	O	O
143	3-SHV-63-0509	SLC DEMIN SUPPLY ISOLATION	2	3-47E854-1/D-4	B	1	GL	C	C
144	3-SHV-63-0511	SLC DEMIN SUPPLY ISOLATION	2	3-47E854-1/D-4	B	1	GL	C	C
145	3-SHV-63-0515	SLC PUMP 1A DISCHARGE ISOLATION	2	3-47E854-1/E-5	B	2-1/2	GA	O	O
146	3-SHV-63-0517	SLC PUMP 1B DISCHARGE ISOLATION	2	3-47E854-1/E-4	B	2-1/2	GA	O	O
147	3-SHV-63-0518	SLC TEST LINE ISOLATION	2	3-47E854-1/F-6	B	1-1/2	GL	C	C
148	3-DRV-63-0522	SLC TEST LINE ISOLATION	2	3-47E854-1/D-6	B	1	GL	C	C
149	3-SHV-63-0524	SLC INJECTION ISOLATION	1	3-47E854-1/E-7	B	1-1/2	GA	O	O
150	3-FCV-64-0017	DW SPLY CNTMT ISOL	2	3-47E865-12/B-7	A	20	BF	C	C

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APPENDIX F - PASSIVE VALVE LIST

#	VALVE ID	FUNCTION	ASME CLASS	DRAWING/DRAWING COORDINATES	CATEGORY	SIZE	VALVE TYPE	NORMAL STATUS	SAFETY STATUS
151	3-FCV-64-0018	DW SPLY CNTMT ISOL	2	3-47E865-12/B-6	A	20	BF	C	C
152	3-FCV-64-0019	PSC SPLY CNTMT ISOL	2	3-47E865-12/B-6	A	20	BF	C	C
153	3-FCV-64-0029	DW EXH CNTMT ISOL	2	3-47E865-12/E-4	A	18	BF	C	C
154	3-FCV-64-0030	PSC VAC RLF ISOL	2	3-47E865-12/D-4	A	18	BF	C	C
155	3-FCV-64-0032	PSC EXH OUTBD CNTMT ISOL	2	3-47E865-12/B-3	A	18	BF	C	C
156	3-FCV-64-0033	PSC EXH INBD CNTMT ISOL	2	3-47E865-12/C-3	A	18	BF	C	C
157	3-SHV-71-0520	RCIC PSC SUCTION ISOL	2	3-47E813-1/C-6	B	2	GL	O	O
158	3-SHV-71-0601	RCIC PSC VACUUM BKR ISOL	2	3-47E813-1/C-6	B	3	GA	O	O
159	3-SHV-73-0534	HPCI PSC VACUUM BKR ISOL	2	3-47E812-1/D-6	B	2	GL	O	O
160	3-SHV-73-0642	HPCI PSC VACUUM BKR ISOL	2	3-47E812-1/D-6	B	3	GA	O	O
161	3-SHV-85-0850	CRD BACKFILL SPLY TO RVLIS ISOL	2	3-47E803-5/F-8	B	1/2	GL	O	O
162	3-SHV-85-0852	CRD BACKFILL SPLY TO RVLIS ISOL	2	3-47E803-5/F-7	B	1/2	GL	O	O
163	3-SHV-85-0854	CRD BACKFILL SPLY TO RVLIS ISOL	2	3-47E803-5/H-2	B	1/2	GL	O	O
164	3-SHV-85-0856	CRD BACKFILL SPLY TO RVLIS ISOL	2	3-47E803-5/H-1	B	1/2	GL	O	O

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX G

CONDITION MONITORING PROGRAM FOR CHECK VALVES

INTRODUCTION

The BFN check valve Condition Monitoring (CM) Program is a subsection of the BFN Inservice Test (IST) Program. This Program is implemented as allowed by the BFN Code of Record for the Third Ten-Year IST Interval, ASME OM Code-1995 through OMa-1996 Addenda, Appendix II.

REQUIREMENTS

The OM Code-1995 through OMa-1996 Addenda, Appendix II, establishes the method that is to be used to group, analyze, and monitor check valves under a CM Program. A CM Program is an alternative to the regular requirements for check valve IST specified in Subsection ISTC of the OM Code. In addition to the Appendix II requirements, three additional requirements specified by the NRC have been incorporated in the BFN Condition Monitoring Program. First, each check valve in the Condition Monitoring Program is bi-directional tested to assess its condition and confirm acceptable valve performance. Second, the time between the initial test or examination and second test or examination, is limited to two fuel cycles or three years (whichever is longer), with additional extensions limited to one fuel cycle per extension. The total interval is limited to a maximum of 10 years. An extension or reduction in the interval between tests or examinations would have to be supported by trending and evaluation of performance data. Third, if the CM program is discontinued for any valve, the provisions of ISTC 4.5.1 through ISTC 4.5.4 must be implemented for the valve.

GROUPING

Check valves tested under the CM Program are grouped based on the following:

- (1) Intended purpose of CM (e.g., to improve performance, or to optimize testing, examination, and preventive maintenance activities)
- (2) Analysis of test results and maintenance history
- (3) Design characteristics, application, and service conditions.
- (4) Grouping also considers the sample disassembly examination program grouping details of OM ISTC 4.5.4(c), which states that valves are to be grouped by similar design, application, and service conditions. The grouping also considers maintenance and modification history, potential flow instabilities, required degree of disassembly, the need for tolerance or critical dimension checks, valve manufacturer, design, service, size, materials of construction, and orientation.

ANALYSIS

Check valves tested under the CM Program have their test and maintenance history analyzed to establish the basis for specifying inservice testing, examination, and preventive maintenance activities. The analysis includes the following:

- (1) Identify any common failure or maintenance patterns
- (2) Analyze these patterns to determine their significance and to identify potential failure mechanisms
 - (a) determine if certain preventive maintenance activities would mitigate the failure or maintenance patterns
 - (b) determine if certain CM tests such as nonintrusive testing are feasible and effective in monitoring for these failure mechanisms
 - (c) determine if periodic disassembly and examination activities would be effective in monitoring for these failure mechanisms
 - (d) determine if changes in the valve groupings are required

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX G

CONDITION MONITORING PROGRAM FOR CHECK VALVES

MONITORING

(a) Performance Improvement Activities

- (1) If sufficient information is not available to perform the analysis in the preceding section, or if the analysis is inconclusive, then the following activities will be performed at sufficient intervals over an interim period of the next 5 years or two refueling outages, whichever is less, to determine the cause of the failure or the maintenance patterns:
 - (a) Identify interim tests (e.g., nonintrusive tests) to assess the performance of the valve or group of valves
 - (b) Identify interim examinations to evaluate potential degradation mechanisms
 - (c) Identify other types of analysis that will be performed to assess check valve condition
 - (d) Identify which of these activities will be performed on each valve in the group
 - (e) Identify the interval of each activity.
- (2) Complete or revise the CM Program test plans to document the Check Valve Program Improvement activities and their associated frequencies.
- (3) Perform these activities at their associated intervals until:
 - (a) sufficient information is obtained to permit an adequate evaluation of the specific application, or
 - (b) until the end of the interim period
- (4) After performance, review the results of each activity to determine if any changes to the program are required. If significant changes to the program are required, the program will be revised prior to the performance of the next activity, and the applicable requirements of the preceding sections must be repeated.

(b) Optimization of CM Activities

- (1) If sufficient information is available to assess the performance adequacy of the check valve or group of check valves, then the following activities will be performed:
 - (a) Identify the applicable preventive maintenance activities including their associated intervals that are required to maintain the continued acceptable performance of the check valve or group of check valves
 - (b) Identify the applicable examination activities including their associated intervals that will be used to periodically assess the condition of each check valve or group of check valves
 - (c) Identify the applicable test activities including their associated intervals that will be used to periodically verify the acceptable performance of each check valve or group of check valves
 - (d) Identify which of these activities will be performed on each valve in the group
 - (e) Identify the interval of each activity
- (2) Revise the test plans to document the optimized CM program activities, and the associated intervals of each activity
- (3) Perform these activities at their associated intervals
- (4) After performance, review the results of each activity to determine if any changes to the optimized CM program are required. If significant changes are required, the program will be revised prior to the performance of the next activity, and the applicable requirements of the preceding sections must be repeated.

BROWNS FERRY NUCLEAR PLANT INSERVICE TESTING PROGRAM

FOR THE THIRD TEN-YEAR INTERVAL

APPENDIX G

CONDITION MONITORING PROGRAM FOR CHECK VALVES

CORRECTIVE MAINTENANCE

If corrective maintenance is performed on a check valve, the analysis used to formulate the basis of the CM activities for that valve and its associated valve group must be reviewed to determine if any changes are required. If significant changes are required, the program must be revised and the applicable requirements of the preceding sections repeated.

DOCUMENTATION

The CM Program will be documented and will include the following information:

- (a) list of valves in the program
- (b) list of the valves in each valve group
- (c) dates valves were added/deleted to the program and the reason for their inclusion/deletion
- (d) analysis forming the basis for the program
- (e) identified failure and maintenance history patterns for each valve
- (f) CM Program activities and their associated intervals for each valve or valve group.

CHECK VALVES IN THE BFN CONDITION MONITORING PROGRAM

UNID	CM GROUP	DESCRIPTION	SIZE	MANUFACTURER/MODEL
0-CKV-23-601	1	RHRWSW Keep-Fill	1-1/2"	Hancock 5580
0-CKV-23-603	1	RHRWSW Keep-Fill	1-1/2"	Hancock 5580
0-CKV-23-605	1	RHRWSW Keep-Fill	1-1/2"	Hancock 5580
0-CKV-23-607	1	RHRWSW Keep-Fill	1-1/2"	Hancock 5580
0-CKV-50-1017	2	EECW HDR A Chemical Inject	1"	Dow Corning 355
0-CKV-50-1018	2	EECW HDR A Chemical Inject	1"	Dow Corning 355
0-CKV-50-1019	2	EECW HDR B Chemical Inject	1"	Dow Corning 355
0-CKV-50-1020	2	EECW HDR B Chemical Inject	1"	Dow Corning 355
0-CKV-50-1021	2	EECW HDR C Chemical Inject	1"	Dow Corning 355
0-CKV-50-1022	2	EECW HDR C Chemical Inject	1"	Dow Corning 355
0-CKV-50-1023	2	EECW HDR D Chemical Inject	1"	Dow Corning 355
0-CKV-50-1024	2	EECW HDR D Chemical Inject	1"	Dow Corning 355
0-CKV-67-507	3	1D DG Clr South Hdr Supply	4"	Daniel 1601
0-CKV-67-508	3	1D DG Clr South Hdr Supply	4"	Daniel 1601
0-CKV-67-514	3	1C DG Clr South Hdr Supply	4"	Daniel 1601
0-CKV-67-515	3	1C DG Clr South Hdr Supply	4"	Daniel 1601
0-CKV-67-521	3	1B DG Clr South Hdr Supply	4"	Daniel 1601
0-CKV-67-522	3	1B DG Clr South Hdr Supply	4"	Daniel 1601
0-CKV-67-528	3	1A DG Clr South Hdr Supply	4"	Daniel 1601
0-CKV-67-529	3	1A DG Clr South Hdr Supply	4"	Daniel 1601
0-CKV-67-538	3	U1 CB Chiller South Hdr Supply	6"	Daniel 1601
0-CKV-67-539	3	U1 CB Chiller South Hdr Supply	6"	Daniel 1601
0-CKV-67-624	3	1C DG Clr North Hdr Supply	4"	Daniel 1601
0-CKV-67-625	3	1C DG Clr North Hdr Supply	4"	Daniel 1601
0-CKV-67-627	3	1D DG Clr North Hdr Supply	4"	Daniel 1601
0-CKV-67-628	3	1D DG Clr North Hdr Supply	4"	Daniel 1601
0-CKV-67-630	3	1B DG Clr North Hdr Supply	4"	Daniel 1601
0-CKV-67-631	3	1B DG Clr North Hdr Supply	4"	Daniel 1601
0-CKV-67-634	3	1A DG Clr North Hdr Supply	4"	Daniel 1601
0-CKV-67-635	3	1A DG Clr North Hdr Supply	4"	Daniel 1601
0-CKV-67-653	3	U1 CB Chiller North Hdr Supply	6"	Daniel 1601
0-CKV-67-656	3	U1 CB Chiller North Hdr Supply	6"	Daniel 1601
1-CKV-01-742	4	Off Gas Preheater 1A Supply	2"	Flowserve W99925484
1-CKV-01-744	4	Off Gas Preheater 1B Supply	2"	Flowserve W99925484
1-CKV-03-554	5	FDWTR Line A Outbd Isol	24"	Atwood Morrill 10994
1-CKV-03-558	5	FDWTR Line A Inbd Isol	24"	Atwood Morrill 10994
1-CKV-03-568	5	FDWTR Line B Outbd Isol	24"	Atwood Morrill 10994
1-CKV-03-572	5	FDWTR Line B Inbd Isol	24"	Atwood Morrill 10994
1-CKV-06-822	6	SJAE 1A Cond Drain Isol	1/2"	Hancock 5580
1-CKV-06-826	6	SJAE 1B Cond Drain Isol	1/2"	Hancock 5580
1-CKV-10-506	7	MSRV Tail Pipe A Vac Breaker	2-1/2"	Powell 3061
1-CKV-10-507	7	MSRV Tail Pipe B Vac Breaker	2-1/2"	Powell 3061
1-CKV-10-508	7	MSRV Tail Pipe C Vac Breaker	2-1/2"	Powell 3061
1-CKV-10-509	7	MSRV Tail Pipe D Vac Breaker	2-1/2"	Powell 3061
1-CKV-10-510	7	MSRV Tail Pipe E Vac Breaker	2-1/2"	Powell 3061
1-CKV-10-511	7	MSRV Tail Pipe F Vac Breaker	2-1/2"	Powell 3061
1-CKV-10-512	7	MSRV Tail Pipe G Vac Breaker	2-1/2"	Powell 3061
1-CKV-10-513	7	MSRV Tail Pipe H Vac Breaker	2-1/2"	Powell 3061
1-CKV-10-514	7	MSRV Tail Pipe J Vac Breaker	2-1/2"	Powell 3061
1-CKV-10-515	7	MSRV Tail Pipe K Vac Breaker	2-1/2"	Powell 3061
1-CKV-10-516	7	MSRV Tail Pipe L Vac Breaker	2-1/2"	Powell 3061
1-CKV-10-519	8	MSRV Tail Pipe M Vac Breaker	2-1/2"	Atwood Morrill 13894-41
1-CKV-10-520	8	MSRV Tail Pipe N Vac Breaker	2-1/2"	Atwood Morrill 13894-41
1-CKV-10-521	9	MSRV Tail Pipe A Vac Breaker	10"	GPE Controls LF240-435
1-CKV-10-522	9	MSRV Tail Pipe B Vac Breaker	10"	GPE Controls LF240-435

UNID	CM GROU P	DESCRIPTION	SIZE	MANUFACTURER/MO DEL
1-CKV-10-523	9	MSRV Tail Pipe C Vac Breaker	10"	GPE Controls LF240-435
1-CKV-10-524	9	MSRV Tail Pipe D Vac Breaker	10"	GPE Controls LF240-435
1-CKV-10-525	9	MSRV Tail Pipe E Vac Breaker	10"	GPE Controls LF240-435
1-CKV-10-526	9	MSRV Tail Pipe F Vac Breaker	10"	GPE Controls LF240-435
1-CKV-10-527	9	MSRV Tail Pipe G Vac Breaker	10"	GPE Controls LF240-435
1-CKV-10-528	9	MSRV Tail Pipe H Vac Breaker	10"	GPE Controls LF240-435
1-CKV-10-529	9	MSRV Tail Pipe J Vac Breaker	10"	GPE Controls LF240-435
1-CKV-10-530	9	MSRV Tail Pipe K Vac Breaker	10"	GPE Controls LF240-435
1-CKV-10-531	9	MSRV Tail Pipe L Vac Breaker	10"	GPE Controls LF240-435
1-CKV-10-532	9	MSRV Tail Pipe M Vac Breaker	10"	GPE Controls LF240-435
1-CKV-10-533	9	MSRV Tail Pipe N Vac Breaker	10"	GPE Controls LF240-435
1-CKV-23-510	10	RHRSW Supply to RHR HTX 1A	16"	Atwood Morrill 11601-02
1-CKV-23-530	10	RHRSW Supply to RHR HTX 1B	16"	Atwood Morrill 11601-02
1-CKV-23-550	10	RHRSW Supply to RHR HTX 1C	16"	Atwood Morrill 11601-02
1-CKV-23-569	10	RHRSW Supply to RHR HTX 1D	16"	Atwood Morrill 11601-02
1-CKV-24-886	11	RCW Supply to Panel 25-340	1"	Powell 2341SWE
1-CKV-24-891	11	RCW Supply to Panel 25-340	1"	Powell 2341SWE
1-CKV-32-336	12	DCA Containment Isolation	1"	Hancock 5580
1-CKV-32-915	12	DCA Containment Isolation	1"	Hancock 5580
1-CKV-32-2516	13	DCA Containment Isolation	3/4"	Kerotest MC-009
1-CKV-32-2521	13	DCA Containment Isolation	3/4"	Kerotest MC-009
1-CKV-63-514	14	SLC Pump 2A Discharge	1-1/2"	Velan W7234B13MS
1-CKV-63-516	14	SLC Pump 2B Discharge	1-1/2"	Velan W7234B13MS
1-CKV-63-525	14	SLC Inject Line Containment Isol	1-1/2"	Velan W7234B13MS
1-CKV-63-526	14	SLC Inject Line Containment Isol	1-1/2"	Velan W7234B13MS
1-CKV-64-800	15	PSC to Reactor Bldg Vac Breaker	20"	GPE Controls LF240125
1-CKV-64-801	15	PSC to Reactor Bldg Vac Breaker	20"	GPE Controls LF240125
1-CKV-67-541	3	Loop I Core Spray Rm Clr Supply	2-1/2"	Daniel 1601
1-CKV-67-542	3	Loop I Core Spray Rm Clr Supply	2-1/2"	Daniel 1601
1-CKV-67-558	3	Loop I RHR Rm Clr South Hdr Sply	3"	Daniel 1601
1-CKV-67-559	3	Loop I RHR Rm Clr South Hdr Sply	3"	Daniel 1601
1-CKV-67-584	3	Loop II Core Spray Rm Clr Supply	2-1/2"	Daniel 1601
1-CKV-67-585	3	Loop II Core Spray Rm Clr Supply	2-1/2"	Daniel 1601
1-CKV-67-600	3	Loop II RHR Rm Clr South Hdr Sply	3"	Daniel 1601
1-CKV-67-601	3	Loop II RHR Rm Clr South Hdr Sply	3"	Daniel 1601
1-CKV-67-638	3	Loop I RHR Rm Clr North Hdr Sply	3"	Daniel 1601
1-CKV-67-639	3	Loop I RHR Rm Clr North Hdr Sply	3"	Daniel 1601
1-CKV-67-648	3	Loop I Core Spray Rm Clr Supply	2-1/2"	Daniel 1601
1-CKV-67-649	3	Loop I Core Spray Rm Clr Supply	2-1/2"	Daniel 1601
1-CKV-67-656	3	Loop II Core Spray Rm Clr Supply	2-1/2"	Daniel 1601
1-CKV-67-657	3	Loop II Core Spray Rm Clr Supply	2-1/2"	Daniel 1601
1-CKV-67-659	3	Loop II RHR Rm Clr North Hdr Sply	3"	Daniel 1601
1-CKV-67-660	3	Loop II RHR Rm Clr North Hdr Sply	3"	Daniel 1601
1-CKV-67-787	16	U1 Emergency Chiller Supply	4"	Crane 123A-UX
1-CKV-67-789	16	U1 Emergency Chiller Supply	4"	Crane 123A-UX
1-CKV-67-838	3	Pnl 25-340 Supply	1"	Daniel 1601
1-CKV-67-839	3	Pnl 25-340 Supply	1"	Daniel 1601
1-CKV-67-843	3	Pnl 25-341 Supply	1"	Daniel 1601
1-CKV-67-844	3	Pnl 25-341 Supply	1"	Daniel 1601
1-CKV-68-508	17	Recirc Pump Seal Isol	3/4"	Anchor Darling W821722
1-CKV-68-523	17	Recirc Pump Seal Isol	3/4"	Anchor Darling W821722
1-CKV-68-550	17	Recirc Pump Seal Isol	3/4"	Anchor Darling W821722
1-CKV-68-555	17	Recirc Pump Seal Isol	3/4"	Anchor Darling W821722
1-CKV-69-630	18	RWCU to RPV Return	4"	Anchor Darling W9624799B
1-CKV-70-506	19	RBCCW Supply Containment Isol	8"	Velan B150114B2TS
1-SHV-71-14	20	RCIC Turbine Exh Stop CKV	8"	Walworth 5312WE
1-SHV-71-32	21	RCIC Turbine Exh Drain Stop CKV	2"	Velan W8-084B-2TY

UNID	CM GROU P	DESCRIPTION	SIZE	MANUFACTURER/MO DEL
1-FCV-71-40	22	RCIC Testable CKV	6"	Rockwell 970 JMMNY
1-CKV-71-499	23	RCIC Suct Supply from CST	6"	Velan B140116B2TS
1-CKV-71-508	24	RCIC Suct Supply from Torus	6"	Powell 1561
1-CKV-71-547	25	RCIC Pump Min Flow	2"	Hancock 5580
1-CKV-71-580	26	RCIC Turbine Exh	10"	Anchor Darling W9524568
1-CKV-71-589	25	RCIC Condensate Pump Discharge	2"	Hancock 5580
1-CKV-71-592	25	RCIC Turbine Exh Drain	2"	Hancock 5580
1-CKV-71-597	27	RCIC Turbine Exh Vac Bkr	2"	Hancock 5580
1-CKV-71-598	27	RCIC Turbine Exh Vac Bkr	2"	Hancock 5580
1-CKV-71-599	27	RCIC Turbine Exh Vac Bkr	2"	Hancock 5580
1-CKV-71-600	27	RCIC Turbine Exh Vac Bkr	2"	Hancock 5580
1-ISV-73-23	28	HPCI Turbine Exh Stop CKV	16"	Walworth 5312WE
1-ISV-73-24	21	HPCI Turbine Exh Drain Stop CKV	2"	Velan W8-084B-2TY
1-FCV-73-45	22	HPCI Testable CKV	14"	Rockwell 970 JMMNY
1-CKV-73-505	29	HPCI Suct Supply from CST	14"	Chapman 151AWE
1-CKV-73-517	30	HPCI Suct Supply from Torus	16"	Powell 1561
1-CKV-73-559	31	HPCI Pump Min Flow	4"	Powell 9061
1-CKV-73-603	26	HPCI Turbine Exh	16"	Anchor Darling W9524569
1-CKV-73-609	32	HPCI Turbine Exh Drain	2"	Rockwell 838Y
1-CKV-73-625	25	HPCI Gland Seal Return	2"	Hancock 5580
1-CKV-73-633	27	HPCI Turbine Exh Vac Bkr	2"	Hancock 5580
1-CKV-73-634	27	HPCI Turbine Exh Vac Bkr	2"	Hancock 5580
1-CKV-73-635	27	HPCI Turbine Exh Vac Bkr	2"	Hancock 5580
1-CKV-73-636	27	HPCI Turbine Exh Vac Bkr	2"	Hancock 5580
1-CKV-74-54	33	RHR Loop I Testable CKV	24"	Atwood Morrill 20800-H
1-CKV-74-68	33	RHR Loop II Testable CKV	24"	Atwood Morrill 20800-H
1-CKV-74-560A	34	RHR Pump 2A Min Flow	3"	Powell 3160A
1-CKV-74-560B	34	RHR Pump 2B Min Flow	3"	Powell 3160A
1-CKV-74-560C	34	RHR Pump 2C Min Flow	3"	Powell 3160A
1-CKV-74-560D	34	RHR Pump 2D Min Flow	3"	Powell 3160A
1-CKV-74-661	35	RHR Thermal Relief CKV	3/4"	Velan W04-203B-13AA
1-CKV-74-662	35	RHR Thermal Relief CKV	3/4"	Velan W04-203B-13AA
1-CKV-74-792	36	Loop I RHR Keep Fill	2"	Hancock 5580
1-CKV-74-802	36	Loop II RHR Keep Fill	2"	Hancock 5580
1-CKV-74-803	36	Loop II RHR Keep Fill	2"	Hancock 5580
1-CKV-74-804	36	Loop I RHR Keep Fill	2"	Hancock 5580
1-CKV-75-26	37	CS Loop I Injection CKV	12"	Rockwell 770(CF8M)
1-CKV-75-54	37	CS Loop II Injection CKV	12"	Rockwell 770(CF8M)
1-CKV-75-570A	38	CS Pump 2A Min Flow	3"	Velan B101114B2T
1-CKV-75-570B	38	CS Pump 2B Min Flow	3"	Velan B101114B2T
1-CKV-75-570C	38	CS Pump 2C Min Flow	3"	Velan B101114B2T
1-CKV-75-570D	38	CS Pump 2D Min Flow	3"	Velan B101114B2T
1-CKV-75-606	36	Loop I CS Keep Fill	2"	Hancock 5580
1-CKV-75-607	36	Loop I CS Keep Fill	2"	Hancock 5580
1-CKV-75-609	36	Loop II CS Keep Fill	2"	Hancock 5580
1-CKV-75-610	36	Loop II CS Keep Fill	2"	Hancock 5580
1-CKV-76-653	39	TIP Indexer Purge Supply	1/4"	Teledyne 483-1
1-CKV-78-526	40	U1 Fuel Pool Cooling Supply	8"	Daniel 1601
1-CKV-84-600	41	CAD Drywell Supply A	2"	Kerotest TVD9911S(2)
1-CKV-84-601	41	CAD Torus Supply A	2"	Kerotest TVD9911S(2)
1-CKV-84-602	41	CAD Drywell Supply B	2"	Kerotest TVD9911S(2)
1-CKV-84-603	41	CAD Torus Supply B	2"	Kerotest TVD9911S(2)

UNID	CM GROUP	DESCRIPTION	SIZE	MANUFACTURER/MODEL
1-CKV-85-589	42	CRD Charging Water (189 valves)	1/2"	General Electric 117C3743P006
1-CKV-85-597	42	CRD Cooling Water (189 valves)	1/2"	General Electric 117C3743P006
1-CKV-85-616	42	CRD Scram Outlet (189 valves)	1/2"	General Electric 117C3743P006
2-CKV-01-742	4	Off Gas Preheater 2A Supply	2"	Flowserve W99925484
2-CKV-01-744	4	Off Gas Preheater 2B Supply	2"	Flowserve W99925484
2-CKV-03-554	5	FDWTR Line A Outbd Isol	24"	Atwood Morrill 10994
2-CKV-03-558	5	FDWTR Line A Inbd Isol	24"	Atwood Morrill 10994
2-CKV-03-568	5	FDWTR Line B Outbd Isol	24"	Atwood Morrill 10994
2-CKV-03-572	5	FDWTR Line B Inbd Isol	24"	Atwood Morrill 10994
2-CKV-06-822	6	SJAE 2A Cond Drain Isol	1/2"	Hancock 5580
2-CKV-06-826	6	SJAE 2B Cond Drain Isol	1/2"	Hancock 5580
2-CKV-10-506	7	MSRV Tail Pipe A Vac Breaker	2-1/2"	Powell 3061
2-CKV-10-507	7	MSRV Tail Pipe B Vac Breaker	2-1/2"	Powell 3061
2-CKV-10-508	7	MSRV Tail Pipe C Vac Breaker	2-1/2"	Powell 3061
2-CKV-10-509	7	MSRV Tail Pipe D Vac Breaker	2-1/2"	Powell 3061
2-CKV-10-510	7	MSRV Tail Pipe E Vac Breaker	2-1/2"	Powell 3061
2-CKV-10-511	7	MSRV Tail Pipe F Vac Breaker	2-1/2"	Powell 3061
2-CKV-10-512	7	MSRV Tail Pipe G Vac Breaker	2-1/2"	Powell 3061
2-CKV-10-513	7	MSRV Tail Pipe H Vac Breaker	2-1/2"	Powell 3061
2-CKV-10-514	7	MSRV Tail Pipe J Vac Breaker	2-1/2"	Powell 3061
2-CKV-10-515	7	MSRV Tail Pipe K Vac Breaker	2-1/2"	Powell 3061
2-CKV-10-516	7	MSRV Tail Pipe L Vac Breaker	2-1/2"	Powell 3061
2-CKV-10-519	7	MSRV Tail Pipe M Vac Breaker	2-1/2"	Powell 3061
2-CKV-10-520	7	MSRV Tail Pipe N Vac Breaker	2-1/2"	Powell 3061
2-CKV-10-521	9	MSRV Tail Pipe A Vac Breaker	10"	GPE Controls LF240-435
2-CKV-10-522	9	MSRV Tail Pipe B Vac Breaker	10"	GPE Controls LF240-435
2-CKV-10-523	9	MSRV Tail Pipe C Vac Breaker	10"	GPE Controls LF240-435
2-CKV-10-524	9	MSRV Tail Pipe D Vac Breaker	10"	GPE Controls LF240-435
2-CKV-10-525	9	MSRV Tail Pipe E Vac Breaker	10"	GPE Controls LF240-435
2-CKV-10-526	9	MSRV Tail Pipe F Vac Breaker	10"	GPE Controls LF240-435
2-CKV-10-527	9	MSRV Tail Pipe G Vac Breaker	10"	GPE Controls LF240-435
2-CKV-10-528	9	MSRV Tail Pipe H Vac Breaker	10"	GPE Controls LF240-435
2-CKV-10-529	9	MSRV Tail Pipe J Vac Breaker	10"	GPE Controls LF240-435
2-CKV-10-530	9	MSRV Tail Pipe K Vac Breaker	10"	GPE Controls LF240-435
2-CKV-10-531	9	MSRV Tail Pipe L Vac Breaker	10"	GPE Controls LF240-435
2-CKV-10-532	9	MSRV Tail Pipe M Vac Breaker	10"	GPE Controls LF240-435
2-CKV-10-533	9	MSRV Tail Pipe N Vac Breaker	10"	GPE Controls LF240-435
2-CKV-23-579	10	RHRWS Supply to RHR HTX 2A	16"	Atwood Morrill 11601-02
2-CKV-23-580	10	RHRWS Supply to RHR HTX 2B	16"	Atwood Morrill 11601-02
2-CKV-23-581	10	RHRWS Supply to RHR HTX 2C	16"	Atwood Morrill 11601-02
2-CKV-23-582	10	RHRWS Supply to RHR HTX 2D	16"	Atwood Morrill 11601-02
2-CKV-24-886	11	RCW Supply to Panel 25-340	1"	Powell 2341SWE
2-CKV-24-891	11	RCW Supply to Panel 25-340	1"	Powell 2341SWE
2-CKV-32-336	12	DCA Containment Isolation	1"	Hancock 5580
2-CKV-32-2163	12	DCA Containment Isolation	1"	Hancock 5580
2-CKV-32-2516	13	DCA Containment Isolation	3/4"	Kerotest MC-009
2-CKV-32-2521	13	DCA Containment Isolation	3/4"	Kerotest MC-009
2-CKV-63-514	14	SLC Pump 2A Discharge	1-1/2"	Velan W7234B13MS
2-CKV-63-516	14	SLC Pump 2B Discharge	1-1/2"	Velan W7234B13MS
2-CKV-63-525	14	SLC Injection Line Containment Isol	1-1/2"	Velan W7234B13MS
2-CKV-63-526	14	SLC Injection Line Containment Isol	1-1/2"	Velan W7234B13MS
2-CKV-64-800	15	PSC to Reactor Bldg Vac Breaker	20"	GPE Controls LF240125
2-CKV-64-801	15	PSC to Reactor Bldg Vac Breaker	20"	GPE Controls LF240125
2-CKV-67-541	3	Loop I Core Spray Rm Clr Supply	2-1/2"	Daniel 1601
2-CKV-67-542	3	Loop I Core Spray Rm Clr Supply	2-1/2"	Daniel 1601

UNID	CM GROU P	DESCRIPTION	SIZE	MANUFACTURER/MO DEL
2-CKV-67-558	3	Loop I RHR Rm Clr Supply	3"	Daniel 1601
2-CKV-67-559	3	Loop I RHR Rm Clr Supply	3"	Daniel 1601
2-CKV-67-584	3	Loop II Core Spray Rm Clr Supply	2-1/2"	Daniel 1601
2-CKV-67-585	3	Loop II Core Spray Rm Clr Supply	2-1/2"	Daniel 1601
2-CKV-67-600	3	Loop II RHR Rm Clr Supply	3"	Daniel 1601
2-CKV-67-601	3	Loop II RHR Rm Clr Supply	3"	Daniel 1601
2-CKV-67-638	3	Loop I RHR Rm Clr Supply	3"	Daniel 1601
2-CKV-67-639	3	Loop I RHR Rm Clr Supply	3"	Daniel 1601
2-CKV-67-648	3	Loop I Core Spray Rm Clr Supply	2-1/2"	Daniel 1601
2-CKV-67-649	3	Loop I Core Spray Rm Clr Supply	2-1/2"	Daniel 1601
2-CKV-67-656	3	Loop II Core Spray Rm Clr Supply	2-1/2"	Daniel 1601
2-CKV-67-657	3	Loop II Core Spray Rm Clr Supply	2-1/2"	Daniel 1601
2-CKV-67-659	3	Loop II RHR Rm Clr Supply	3"	Daniel 1601
2-CKV-67-660	3	Loop II RHR Rm Clr Supply	3"	Daniel 1601
2-CKV-67-838	3	Pnl 25-340 Supply	1"	Daniel 1601
2-CKV-67-839	3	Pnl 25-340 Supply	1"	Daniel 1601
2-CKV-67-843	3	Pnl 25-341 Supply	1"	Daniel 1601
2-CKV-67-844	3	Pnl 25-341 Supply	1"	Daniel 1601
2-CKV-68-508	17	Recirc Pump Seal Isol	3/4"	Anchor Darling W821722
2-CKV-68-523	17	Recirc Pump Seal Isol	3/4"	Anchor Darling W821722
2-CKV-68-550	17	Recirc Pump Seal Isol	3/4"	Anchor Darling W821722
2-CKV-68-555	17	Recirc Pump Seal Isol	3/4"	Anchor Darling W821722
2-CKV-69-630	18	RWCU to RPV Return	4"	Anchor Darling W9624799B
2-CKV-70-506	19	RBCCW Supply Containment Isol	8"	Velan B150114B2TS
2-SHV-71-14	20	RCIC Turbine Exh Stop CKV	8"	Walworth 5312WE
2-SHV-71-32	21	RCIC Turbine Exh Drain Stop CKV	2"	Velan W8-084B-2TY
2-FCV-71-40	43	RCIC Testable CKV	6"	Atwood Morrill 15184-02
2-CKV-71-499	23	RCIC Suct Supply from CST	6"	Velan B140116B2TS
2-CKV-71-508	24	RCIC Suct Supply from Torus	6"	Powell 1561
2-CKV-71-547	25	RCIC Pump Min Flow	2"	Hancock 5580
2-CKV-71-580	26	RCIC Turbine Exh	10"	Anchor Darling W9524568
2-CKV-71-589	25	RCIC Condensate Pump Discharge	2"	Hancock 5580
2-CKV-71-592	25	RCIC Turbine Exh Drain	2"	Hancock 5580
2-CKV-71-597	27	RCIC Turbine Exh Vac Bkr	2"	Hancock 5580
2-CKV-71-598	27	RCIC Turbine Exh Vac Bkr	2"	Hancock 5580
2-CKV-71-599	27	RCIC Turbine Exh Vac Bkr	2"	Hancock 5580
2-CKV-71-600	27	RCIC Turbine Exh Vac Bkr	2"	Hancock 5580
2-ISV-73-23	28	HPCI Turbine Exh Stop CKV	16"	Walworth 5312WE
2-ISV-73-24	21	HPCI Turbine Exh Drain Stop CKV	2"	Velan W8-084B-2TY
2-FCV-73-45	44	HPCI Testable CKV	14"	Atwood Morrill 15184-01
2-CKV-73-505	29	HPCI Suct Supply from CST	14"	Chapman 151AWE
2-CKV-73-517	30	HPCI Suct Supply from Torus	16"	Powell 1561
2-CKV-73-559	31	HPCI Pump Min Flow	4"	Powell 9061
2-CKV-73-603	26	HPCI Turbine Exh	16"	Anchor Darling W9524569
2-CKV-73-609	32	HPCI Turbine Exh Drain	2"	Rockwell 838Y
2-CKV-73-625	25	HPCI Gland Seal Return	2"	Hancock 5580
2-CKV-73-633	27	HPCI Turbine Exh Vac Bkr	2"	Hancock 5580
2-CKV-73-634	27	HPCI Turbine Exh Vac Bkr	2"	Hancock 5580
2-CKV-73-635	27	HPCI Turbine Exh Vac Bkr	2"	Hancock 5580
2-CKV-73-636	27	HPCI Turbine Exh Vac Bkr	2"	Hancock 5580
2-CKV-74-54	33	RHR Loop I Testable CKV	24"	Atwood Morrill 20800-H
2-CKV-74-68	33	RHR Loop II Testable CKV	24"	Atwood Morrill 20800-H
2-CKV-74-560A	34	RHR Pump 2A Min Flow	3"	Powell 3160A

UNID	CM GROUP	DESCRIPTION	SIZE	MANUFACTURER/MODEL
2-CKV-74-560B	34	RHR Pump 2B Min Flow	3"	Powell 3160A
2-CKV-74-560C	34	RHR Pump 2C Min Flow	3"	Powell 3160A
2-CKV-74-560D	34	RHR Pump 2D Min Flow	3"	Powell 3160A
2-CKV-74-661	35	RHR Thermal Relief CKV	3/4"	Velan W04-203B-13AA
2-CKV-74-662	35	RHR Thermal Relief CKV	3/4"	Velan W04-203B-13AA
2-CKV-74-792	36	Loop I RHR Keep Fill	2"	Hancock 5580
2-CKV-74-802	36	Loop II RHR Keep Fill	2"	Hancock 5580
2-CKV-74-803	36	Loop II RHR Keep Fill	2"	Hancock 5580
2-CKV-74-804	36	Loop I RHR Keep Fill	2"	Hancock 5580
2-CKV-75-26	37	CS Loop I Injection CKV	12"	Rockwell 770(CF8M)
2-CKV-75-54	37	CS Loop II Injection CKV	12"	Rockwell 770(CF8M)
2-CKV-75-570A	38	CS Pump 2A Min Flow	3"	Velan B101114B2T
2-CKV-75-570B	38	CS Pump 2B Min Flow	3"	Velan B101114B2T
2-CKV-75-570C	38	CS Pump 2C Min Flow	3"	Velan B101114B2T
2-CKV-75-570D	38	CS Pump 2D Min Flow	3"	Velan B101114B2T
2-CKV-75-606	36	Loop I CS Keep Fill	2"	Hancock 5580
2-CKV-75-607	36	Loop I CS Keep Fill	2"	Hancock 5580
2-CKV-75-609	36	Loop II CS Keep Fill	2"	Hancock 5580
2-CKV-75-610	36	Loop II CS Keep Fill	2"	Hancock 5580
2-CKV-76-653	39	TIP Indexer Purge Supply	1/4"	Teledyne 483-1
2-CKV-78-526	40	U2 Fuel Pool Cooling Supply	8"	Daniel 1601
2-CKV-84-600	41	CAD Drywell Supply A	2"	Kerotest TVD9911S(2)
2-CKV-84-601	41	CAD Torus Supply A	2"	Kerotest TVD9911S(2)
2-CKV-84-602	41	CAD Drywell Supply B	2"	Kerotest TVD9911S(2)
2-CKV-84-603	41	CAD Torus Supply B	2"	Kerotest TVD9911S(2)
2-CKV-85-589	42	CRD Charging Water (189 valves)	1/2"	General Electric 117C3743P006
2-CKV-85-597	42	CRD Cooling Water (189 valves)	1/2"	General Electric 117C3743P006
2-CKV-85-616	42	CRD Scram Outlet (189 valves)	1/2"	General Electric 117C3743P006
3-CKV-01-742	4	Off Gas Preheater 3A Supply	2"	Flowserve W99925484
3-CKV-01-744	4	Off Gas Preheater 3B Supply	2"	Flowserve W99925484
3-CKV-03-554	5	FDWTR Line A Outbd Isol	24"	Atwood Morrill 10994
3-CKV-03-558	5	FDWTR Line A Inbd Isol	24"	Atwood Morrill 10994
3-CKV-03-568	5	FDWTR Line B Outbd Isol	24"	Atwood Morrill 10994
3-CKV-03-572	5	FDWTR Line B Inbd Isol	24"	Atwood Morrill 10994
3-CKV-06-822	6	SJAE 3A Cond Drain Isol	1/2"	Hancock 5580
3-CKV-06-826	6	SJAE 3B Cond Drain Isol	1/2"	Hancock 5580
3-CKV-10-506	7	MSRV Tail Pipe A Vac Breaker	2-1/2"	Powell 3061
3-CKV-10-507	7	MSRV Tail Pipe B Vac Breaker	2-1/2"	Powell 3061
3-CKV-10-508	7	MSRV Tail Pipe C Vac Breaker	2-1/2"	Powell 3061
3-CKV-10-509	7	MSRV Tail Pipe D Vac Breaker	2-1/2"	Powell 3061
3-CKV-10-510	7	MSRV Tail Pipe E Vac Breaker	2-1/2"	Powell 3061
3-CKV-10-511	7	MSRV Tail Pipe F Vac Breaker	2-1/2"	Powell 3061
3-CKV-10-512	7	MSRV Tail Pipe G Vac Breaker	2-1/2"	Powell 3061
3-CKV-10-513	7	MSRV Tail Pipe H Vac Breaker	2-1/2"	Powell 3061
3-CKV-10-514	7	MSRV Tail Pipe J Vac Breaker	2-1/2"	Powell 3061
3-CKV-10-515	7	MSRV Tail Pipe K Vac Breaker	2-1/2"	Powell 3061
3-CKV-10-516	7	MSRV Tail Pipe L Vac Breaker	2-1/2"	Powell 3061
3-CKV-10-519	7	MSRV Tail Pipe M Vac Breaker	2-1/2"	Powell 3061
3-CKV-10-520	7	MSRV Tail Pipe N Vac Breaker	2-1/2"	Powell 3061
3-CKV-10-521	9	MSRV Tail Pipe A Vac Breaker	10"	GPE Controls LF240-435
3-CKV-10-522	9	MSRV Tail Pipe B Vac Breaker	10"	GPE Controls LF240-435
3-CKV-10-523	9	MSRV Tail Pipe C Vac Breaker	10"	GPE Controls LF240-435
3-CKV-10-524	9	MSRV Tail Pipe D Vac Breaker	10"	GPE Controls LF240-435

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3-CKV-10-525	9	MSRV Tail Pipe E Vac Breaker	10"	GPE Controls LF240-435
3-CKV-10-526	9	MSRV Tail Pipe F Vac Breaker	10"	GPE Controls LF240-435
3-CKV-10-527	9	MSRV Tail Pipe G Vac Breaker	10"	GPE Controls LF240-435
3-CKV-10-528	9	MSRV Tail Pipe H Vac Breaker	10"	GPE Controls LF240-435
3-CKV-10-529	9	MSRV Tail Pipe J Vac Breaker	10"	GPE Controls LF240-435
3-CKV-10-530	9	MSRV Tail Pipe K Vac Breaker	10"	GPE Controls LF240-435
3-CKV-10-531	9	MSRV Tail Pipe L Vac Breaker	10"	GPE Controls LF240-435
3-CKV-10-532	9	MSRV Tail Pipe M Vac Breaker	10"	GPE Controls LF240-435
3-CKV-10-533	9	MSRV Tail Pipe N Vac Breaker	10"	GPE Controls LF240-435
3-CKV-23-579	10	RHR SW Supply to RHR HTX 2A	16"	Atwood Morrill 11601-02
3-CKV-23-580	10	RHR SW Supply to RHR HTX 2B	16"	Atwood Morrill 11601-02
3-CKV-23-581	10	RHR SW Supply to RHR HTX 2C	16"	Atwood Morrill 11601-02
3-CKV-23-582	10	RHR SW Supply to RHR HTX 2D	16"	Atwood Morrill 11601-02
3-CKV-32-336	12	DCA Containment Isolation	1"	Hancock 5580
3-CKV-32-2163	12	DCA Containment Isolation	1"	Hancock 5580
3-CKV-32-2516	13	DCA Containment Isolation	3/4"	Kerotest MC-009
3-CKV-32-2521	13	DCA Containment Isolation	3/4"	Kerotest MC-009
3-CKV-63-514	14	SLC Pump 3A Discharge	1-1/2"	Velan W7234B13MS
3-CKV-63-516	14	SLC Pump 3B Discharge	1-1/2"	Velan W7234B13MS
3-CKV-63-525	14	SLC Inject Line Containment Isol	1-1/2"	Velan W7234B13MS
3-CKV-63-526	14	SLC Inject Line Containment Isol	1-1/2"	Velan W7234B13MS
3-CKV-64-800	15	PSC to Reactor Bldg Vac Breaker	20"	GPE Controls LF240125
3-CKV-64-801	15	PSC to Reactor Bldg Vac Breaker	20"	GPE Controls LF240125
3-CKV-67-693	3	3A DG Clr North Hdr Supply	4"	Daniel 1601
3-CKV-67-694	3	3A DG Clr North Hdr Supply	4"	Daniel 1601
3-CKV-67-695	3	3A DG Clr South Hdr Supply	4"	Daniel 1601
3-CKV-67-696	3	3A DG Clr South Hdr Supply	4"	Daniel 1601
3-CKV-67-703	3	3B DG Clr North Hdr Supply	4"	Daniel 1601
3-CKV-67-704	3	3B DG Clr North Hdr Supply	4"	Daniel 1601
3-CKV-67-705	3	3B DG Clr South Hdr Supply	4"	Daniel 1601
3-CKV-67-706	3	3B DG Clr South Hdr Supply	4"	Daniel 1601
3-CKV-67-713	3	3C DG Clr North Hdr Supply	4"	Daniel 1601
3-CKV-67-714	3	3C DG Clr North Hdr Supply	4"	Daniel 1601
3-CKV-67-715	3	3C DG Clr South Hdr Supply	4"	Daniel 1601
3-CKV-67-716	3	3C DG Clr South Hdr Supply	4"	Daniel 1601
3-CKV-67-723	3	3D DG Clr North Hdr Supply	4"	Daniel 1601
3-CKV-67-724	3	3D DG Clr North Hdr Supply	4"	Daniel 1601
3-CKV-67-725	3	3D DG Clr South Hdr Supply	4"	Daniel 1601
3-CKV-67-726	3	3D DG Clr South Hdr Supply	4"	Daniel 1601
3-CKV-67-735	3	U3 SDBR Chiller North EECW Sply	2"	Daniel 1601
3-CKV-67-736	3	U3 SDBR Chiller North EECW Sply	2"	Daniel 1601
3-CKV-67-737	3	U3 SDBR Chiller South EECW Sply	2"	Daniel 1601
3-CKV-67-738	3	U3 SDBR Chiller South EECW Sply	2"	Daniel 1601
3-CKV-67-838	3	Pnl 25-340 Supply	1"	Daniel 1601
3-CKV-67-839	3	Pnl 25-340 Supply	1"	Daniel 1601
3-CKV-67-841	45	U3 CB Chiller North EECW Supply	6"	Anchor Darling EZ517-1-1
3-CKV-67-842	45	U3 CB Chiller North EECW Supply	6"	Anchor Darling EZ517-1-1
3-CKV-67-843	3	Pnl 25-341 Supply	1"	Daniel 1601
3-CKV-67-844	3	Pnl 25-341 Supply	1"	Daniel 1601
3-CKV-67-845	45	U3 CB Chiller South EECW Supply	6"	Anchor Darling EZ517-1-1
3-CKV-67-846	45	U3 CB Chiller South EECW Supply	6"	Anchor Darling EZ517-1-1
3-CKV-67-5002	46	U3 EBR Chiller South EECW Supply	2"	Anchor Darling 1878
3-CKV-67-5021	46	U3 EBR Chiller North EECW Supply	2"	Anchor Darling 1878
3-CKV-67-5022	46	U3 EBR Chiller South EECW Supply	2"	Anchor Darling 1878
3-CKV-67-5023	46	U3 EBR Chiller North EECW Supply	2"	Anchor Darling 1878
3-CKV-68-508	17	Recirc Pump Seal Isol	3/4"	Anchor Darling W821722
3-CKV-68-523	17	Recirc Pump Seal Isol	3/4"	Anchor Darling W821722
3-CKV-68-550	17	Recirc Pump Seal Isol	3/4"	Anchor Darling W821722

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3-CKV-68-555	17	Recirc Pump Seal Isol	3/4"	Anchor Darling W821722
3-CKV-69-628	18	RWCU to RPV Return	4"	Anchor Darling W9624799B
3-CKV-69-629	18	RWCU to RPV Return	4"	Anchor Darling W9624799B
3-CKV-70-506	19	RBCCW Supply Containment Isol	8"	Velan B150114B2TS
3-SHV-71-14	20	RCIC Turbine Exh Stop CKV	8"	Walworth 5312WE
3-SHV-71-32	21	RCIC Turbine Exh Drain Stop CKV	2"	Velan W8-084B-2TY
3-FCV-71-40	43	RCIC Testable CKV	6"	Atwood Morrill 15184-02
3-CKV-71-499	23	RCIC Suct Supply from CST	6"	Velan B140116B2TS
3-CKV-71-508	24	RCIC Suct Supply from Torus	6"	Powell 1561
3-CKV-71-547	25	RCIC Pump Min Flow	2"	Hancock 5580
3-CKV-71-580	26	RCIC Turbine Exh	10"	Anchor Darling W9524568
3-CKV-71-589	25	RCIC Condensate Pump Discharge	2"	Hancock 5580
3-CKV-71-592	25	RCIC Turbine Exh Drain	2"	Hancock 5580
3-CKV-71-597	27	RCIC Turbine Exh Vac Bkr	2"	Hancock 5580
3-CKV-71-598	27	RCIC Turbine Exh Vac Bkr	2"	Hancock 5580
3-CKV-71-599	27	RCIC Turbine Exh Vac Bkr	2"	Hancock 5580
3-CKV-71-600	27	RCIC Turbine Exh Vac Bkr	2"	Hancock 5580
3-ISV-73-23	28	HPCI Turbine Exh Stop CKV	16"	Walworth 5312WE
3-ISV-73-24	21	HPCI Turbine Exh Drain Stop CKV	2"	Velan W8-084B-2TY
3-FCV-73-45	44	HPCI Testable CKV	14"	Atwood Morrill 15184-01
3-CKV-73-505	29	HPCI Suct Supply from CST	14"	Chapman 151AWE
3-CKV-73-517	30	HPCI Suct Supply from Torus	16"	Powell 1561
3-CKV-73-559	31	HPCI Pump Min Flow	4"	Powell 9061
3-CKV-73-603	26	HPCI Turbine Exh	16"	Anchor Darling W9524569
3-CKV-73-609	32	HPCI Turbine Exh Drain	2"	Rockwell 838Y
3-CKV-73-625	25	HPCI Gland Seal Return	2"	Hancock 5580
3-CKV-73-633	27	HPCI Turbine Exh Vac Bkr	2"	Hancock 5580
3-CKV-73-634	27	HPCI Turbine Exh Vac Bkr	2"	Hancock 5580
3-CKV-73-635	27	HPCI Turbine Exh Vac Bkr	2"	Hancock 5580
3-CKV-73-636	27	HPCI Turbine Exh Vac Bkr	2"	Hancock 5580
3-CKV-74-54	33	RHR Loop I Testable CKV	24"	Atwood Morrill 20800-H
3-CKV-74-68	33	RHR Loop II Testable CKV	24"	Atwood Morrill 20800-H
3-CKV-74-560A	34	RHR Pump 3A Min Flow	3"	Powell 3160A
3-CKV-74-560B	34	RHR Pump 3B Min Flow	3"	Powell 3160A
3-CKV-74-560C	34	RHR Pump 3C Min Flow	3"	Powell 3160A
3-CKV-74-560D	34	RHR Pump 3D Min Flow	3"	Powell 3160A
3-CKV-74-661	35	RHR Thermal Relief CKV	3/4"	Velan W04-203B-13AA
3-CKV-74-662	35	RHR Thermal Relief CKV	3/4"	Velan W04-203B-13AA
3-CKV-74-792	36	Loop I RHR Keep Fill	2"	Hancock 5580
3-CKV-74-802	36	Loop II RHR Keep Fill	2"	Hancock 5580
3-CKV-74-803	36	Loop II RHR Keep Fill	2"	Hancock 5580
3-CKV-74-804	36	Loop I RHR Keep Fill	2"	Hancock 5580
3-CKV-75-26	37	CS Loop I Injection CKV	12"	Rockwell 770(CF8M)
3-CKV-75-54	37	CS Loop II Injection CKV	12"	Rockwell 770(CF8M)
3-CKV-75-570A	38	CS Pump 3A Min Flow	3"	Velan B101114B2T
3-CKV-75-570B	38	CS Pump 3B Min Flow	3"	Velan B101114B2T
3-CKV-75-570C	38	CS Pump 3C Min Flow	3"	Velan B101114B2T
3-CKV-75-570D	38	CS Pump 3D Min Flow	3"	Velan B101114B2T
3-CKV-75-606	36	Loop I CS Keep Fill	2"	Hancock 5580
3-CKV-75-607	36	Loop I CS Keep Fill	2"	Hancock 5580
3-CKV-75-609	36	Loop II CS Keep Fill	2"	Hancock 5580

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3-CKV-75-610	36	Loop II CS Keep Fill	2"	Hancock 5580
3-CKV-76-653	39	TIP Indexer Purge Supply	1/4"	Teledyne 483-1
3-CKV-78-526	40	U3 Fuel Pool Cooling Supply	8"	Daniel 1601
3-CKV-84-600	41	CAD Drywell Supply A	2"	Kerotest TVD9911S(2)
3-CKV-84-601	41	CAD Torus Supply A	2"	Kerotest TVD9911S(2)
3-CKV-84-602	41	CAD Drywell Supply B	2"	Kerotest TVD9911S(2)
3-CKV-84-603	41	CAD Torus Supply B	2"	Kerotest TVD9911S(2)
3-CKV-85-589	42	CRD Charging Water (189 valves)	1/2"	General Electric 117C3743P006
3-CKV-85-597	42	CRD Cooling Water (189 valves)	1/2"	General Electric 117C3743P006
3-CKV-85-616	42	CRD Scram Outlet (189 valves)	1/2"	General Electric 117C3743P006

NOTES:

- (1) Unit 1 check valves are listed in the Program listing, but are not monitored until required to be operational. As U1 components are returned to operation they will be phased into the normal monitoring activities.
- (2) Monitoring activities include internal inspections (disassembly), radiographic inspections, flow/no flow testing, Appendix J leak rate testing, Maintenance Rule monitoring, SOER 86-03 Program inspections.
- (3) Initial intervals are two operating cycles (maximum) with evaluations for increase or decrease in intervals after individual activities are completed.