

KANSAS GAS AND ELECTRIC COMPANY
WOLF CREEK GENERATING STATION

INSERVICE TESTING PROGRAM
FOR
PUMPS AND VALVES

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INTRODUCTION

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

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

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

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

NRC Regulatory Guides Division 1

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

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

"NRC Staff Guidance for Preparing Pump and Valve Testing Programs and Associated Relief Request," January 1978

Final Safety Analysis Report, Wolf Creek Generating Station

Technical Specifications, Wolf Creek Generating Station

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

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Table 1.1

PIPING AND INSTRUMENTATION DIAGRAMS

<u>SYSTEM</u>	<u>P&ID</u>
MAIN STEAM SYSTEM	M-02AB01 M-02AB02
MAIN FEEDWATER SYSTEM	M-02AE01 M-02AE02
AUXILIARY FEEDWATER SYSTEM	M-02AL01
REACTOR COOLANT SYSTEM	M-02BB01 M-02BB02 M-02BB03 M-02BB04
CHEMICAL & VOLUME CONTROL SYSTEM	M-02BG01 M-02BG02 M-02BG03 M-02BG04 M-02BG05
REACTOR MAKE-UP WATER SYSTEM	M-02BL01
STEAM GENERATOR BLOWDOWN SYSTEM	M-02BM01
BORATED REFUELING WATER STORAGE SYSTEM	M-02BN01
FUEL POOL COOLING AND CLEAN-UP SYSTEM	M-02EC01 M-02EC02
ESSENTIAL SERVICE WATER SYSTEM	M-K2EF01 M-02EF01 M-02EF02
COMPONENT COOLING WATER SYSTEM	M-02EG01 M-02EG02 M-02EG03
RESIDUAL HEAT REMOVAL SYSTEM	M-02EJ01
HIGH PRESSURE COOLANT INJECTION SYSTEM	M-02EM01 M-02EM02
CONTAINMENT SPRAY SYSTEM	M-02EN01
ACCUMULATOR SAFETY INJECTION SYSTEM	M-02EP01
AUXILIARY TURBINES-AUXILIARY FEEDWATER PUMP TURBINE	M-02FC02

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Table 1.1

PIPING AND INSTRUMENTATION DIAGRAMS (continued)

<u>SYSTEM</u>	<u>P&ID</u>
CONTAINMENT HYDROGEN CONTROL SYSTEM	M-02GS01
CONTAINMENT PURGE SYSTEM	M-02GT01
LIQUID RADWASTE SYSTEM	M-02HB01
DECONTAMINATION SYSTEM	M-02HD01
EMERGENCY FUEL OIL SYSTEM	M-02JE01
COMPRESSED AIR SYSTEM	M-02KA01 M-02KA02 M-02KA05
CONTAINMENT BREATHING AIR	M-12KB01
FIRE PROTECTION SYSTEM	M-02KC02
STANDBY DIESEL GENERATOR	M-02KJ01 M-02KJ02 M-02KJ03 M-02KJ04 M-02KJ05 M-02KJ06
REACTOR BUILDING AND HOT MACHINE SHOP FLOOR AND EQUIPMENT DRAIN SYSTEM	M-02LF03 M-02LF09
NUCLEAR SAMPLING SYSTEM	M-02SJ01 M-02SJ04

2.0 INSERVICE TESTING PROGRAM FOR PUMPS

2.1 General Information

2.1.1 Applicable Code

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

2.1.2 Pump Program Tables

The tables in Appendix A list all pumps included in the Wolf Creek Generating Station (WCGS) IST Program. Data contained in these tables identifies those pumps subject to inservice testing, the inservice test quantities to be measured, the inservice testing frequency, and any applicable remarks. The column headings are listed and explained below:

PUMP IDENTIFICATION

<u>PUMP NUMBER:</u>	The pump identification number.
<u>SYSTEM:</u>	The system of which the pump is a component.
<u>ISI CLASS:</u>	The ISI classification of the pump.
<u>P&ID NUMBER:</u>	The WCGS drawing number for the P&ID referring to the pump.
<u>P&ID COORD:</u>	The drawing coordinate location of the pump on the P&ID.

ISI REQUIREMENTS

PUMP SPEED, INLET (SUCTION) PRESSURE, DIFFERENTIAL PRESSURE (ΔP), FLOW RATE, VIBRATION, BEARING TEMPERATURE AND LUBRICANT LEVEL OR PRESSURE: When the word "YES" appears in a particular test quantity column, that quantity will be measured during inservice testing in accordance with Subsection IWP. If a modified test is planned or a test is being waived, a request for relief number will appear in the test quantity column referencing the pump relief request. Requests for relief are identified as PR-X, where X is the sequential number of the relief. The requests for relief are included in Section 2.2.

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2.1.3 Measurement of Test Quantities

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

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

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

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

VIBRATION: Pump vibration will be measured with one of the instruments referenced in IWP-4520.

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

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

2.1.4 Allowable Ranges of Test Quantities

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

2.1.5 Instrument Accuracy

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

SECTION 2.2

RELIEF REQUESTS FOR PUMP TESTING PROGRAM

RELIEF REQUEST NO. PR-1

PUMPS:

PAL01 A and B, Motor Driven Aux. Feedwater Pumps; PAL02, Turbine Driven Aux. Feedwater Pump; PBG02 A and B, Boric Acid Transfer Pumps; PBG05 A and B, Centrifugal Charging Pumps; PEC01 A and B, Fuel Pool Cooling Pumps; PEF01 A and B, Essential Service Water Pumps; PEG01 A, B, C and D, Component Cooling Water Pumps; PEJ01 A and B, Residual Heat Removal Pumps; PEM01 A and B, Safety Injection Pumps; PEN01 A and B, Containment Spray Pumps; PJE01 A and B, Emergency Fuel Oil Transfer Pumps.

CLASS:

ISI Class 2 and 3

TEST REQUIREMENT:

The temperature of all centrifugal pump bearings outside the main flow path shall be measured at points selected to be responsive to changes in the temperature of the bearing. (IWP-4310)

BASIS FOR RELIEF:

- a) Bearings of certain pumps addressed in this relief request are cooled by their respective process fluid. Thus, bearing temperature measurements would be highly dependent on the temperature of the cooling medium.
- b) Bearing temperature taken at one-year intervals provide little data toward determining the incremental degradation of a bearing or providing any meaningful trend information.
- c) All pumps addressed by this relief request, except for the Emergency Fuel Oil Transfer Pumps, are subjected to vibration measurements on a quarterly basis in accordance with Subsection IWP-4500. Vibration measurements are a significantly more reliable indication of pump bearing degradation than are temperature measurements.

In summary, other measurable parameters are more indicative of pump performance and in some instances the measured temperature does not represent the actual bearing temperature. Therefore, pump bearing temperature will not be measured.

ALTERNATE TESTING:

None

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RELIEF REQUEST NO. PR-2

PUMPS:

PAL01 A and B, Motor Driven Aux. Feedwater Pumps; PAL02, Turbine Driven Aux. Feedwater Pump; PBG02 A and B, Boric Acid Transfer Pumps; PBG05 A and B, Centrifugal Charging Pumps; PEC01 A and B, Fuel Pool Cooling Pumps; PEF01 A and B, Essential Service Water Pumps; PEG01 A, B, C and D, Component Cooling Water Pumps; PEJ01 A and B, Residual Heat Removal Pumps; PEM01 A and B, Safety Injection Pumps; PEN01 A and B, Containment Spray Pumps; PJE01 A and B, Emergency Fuel Oil Transfer Pumps.

CLASS:

ISI Class 2 and 3

TEST REQUIREMENT:

After completion of a pump test, test results shall be analyzed within 96 hours. (IWP-3220)

BASIS FOR RELIEF:

Test results are initially approved by on shift personnel using the acceptance criteria contained in the test to prove equipment operability. The analyzation of results for degradation requiring increased testing or engineering evaluation will then occur when the appropriate people are available for reviewing the IST. Appropriate personnel are not readily available for reviewing IST test results.

ALTERNATE TESTING:

Test data will be reviewed within three (3) working days following the test. Weekends (starting at 4:00 p.m. on the proceeding and ending at 8:00 a.m. the day following the weekend) and holidays will be excluded from the 96 hour time frame.

RELIEF REQUEST NO. PR-3

PUMPS:

PEF01 A and B, Essential Service Water Pumps; PJE01 A and B, Emergency Fuel Oil Transfer Pumps.

CLASS:

ISI Class 3

TEST REQUIREMENT:

Measure pump inlet pressure before starting the pump and during the test.
(Table IWP-3100-1)

BASIS FOR RELIEF:

The essential service water and emergency fuel oil pumps are submerged and the pump inlet pressures are assumed to correspond to that of the static head of the medium in which the pumps reside. Since these levels remain essentially constant through the duration of the tests, only one measurement is required.

ALTERNATE TESTING:

For the ESW and emergency fuel oil transfer pumps, a single suction pressure will be calculated for each test based on the submergence of the pump.

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RELIEF REQUEST NO. PR-4

PUMPS:

PJE01 A and B, Emergency Fuel Oil Transfer Pumps

CLASS:

ISI Class 3

TEST REQUIREMENT:

Pump vibration shall be measured during each Inservice Test. (IWP-3100)

BASIS FOR RELIEF:

The emergency fuel oil transfer pumps are submerged within the diesel fuel oil tanks, thus are inaccessible. Therefore, vibration measurement is impractical.

ALTERNATE TESTING:

Ncne

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RELIEF REQUEST NO. PR-5

PUMPS:

PBG02 A and B, Boric Acid Transfer Pumps; PJE01 A and B, Emergency Fuel Oil Transfer Pumps.

CLASS:

ISI Class 3

TEST REQUIREMENT:

Proper lubricant level or pressure shall be observed during each Inservice Test. (IWP-3100)

BASIS FOR RELIEF:

The Boric Acid Transfer Pumps and the Emergency Fuel Oil Transfer Pumps are canned motor-pumps. These pumps are continuously lubricated by their process fluid when the pump is running. There are no gauges installed to indicate lubricant level or pressure and it would be impractical to do so. Therefore, lubricant level or pressure will not be observed.

ALTERNATE TESTING:

None

RELIEF REQUEST NO. PR-6

PUMPS:

PBG02 A and B, Boric Acid Transfer Pumps

CLASS:

ISI Class 3

TEST REQUIREMENT:

Pump vibration shall be measured during each Inservice Test. On close-coupled pumps, the measurement point shall be as close as possible to the inboard bearing. (IWP-4510)

BASIS FOR RELIEF:

These are canned motor-pumps which have process fluid lubricated sleeve bearings. The process fluid has a damping effect such that vibration measurement, taken on the pump casing at the bearing sleeves, will not give true indication of actual vibration.

ALTERNATE TESTING:

Vibration measurements will be taken on the pumps' suction and discharge piping for indication of pump bearing degradation.

RELIEF REQUEST NO. PR-7

PUMPS:

PJED1 A and B, Emergency Fuel Oil Transfer Pumps

CLASS:

ISI Class 3

TEST REQUIREMENT:

Pump test results shall be analyzed per IWP-3200.

BASIS FOR RELIEF:

The ASME recognizes that the characteristics of systems containing other than steam or water (e.g. fuel oil) may not necessarily lend themselves to the type and detailed requirements of the testing as specified by Subsection IWP. This is so stated in the ASME response to WPPSS inquiry, File No. BC 77-666/NI 77-371 dated 1/8/79. In cases where test data is erratic or questionable, strict compliance with IWP-3200 could result in excessive testing of the pumps or needless maintenance.

ALTERNATE TESTING:

Analysis of quarterly test data will be based on IWP-3200. In those cases where the test results are erratic or could be misleading, the vendor will be contacted and an engineering evaluation made as to the necessity to develop new acceptance criteria.

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RELIEF REQUEST PR-8

PUMPS:

PAL01 A and B, Motor Driven Aux. Feedwater Pumps; PAL02, Turbine Driven Aux. Feedwater Pump; PBG02 A and B, Boric Acid Transfer Pumps; PBG05 A and B, Centrifugal Charging Pumps; PJE01 A and B, Emergency Fuel Oil Transfer Pumps.

CLASS:

ISI Class 2 and 3

TEST REQUIREMENT:

Flow rate shall be measured using a rate or quantity meter installed in the pump test circuit. (IWP-4600)

BASIS FOR RELIEF:

- a) There is no flow instrumentation installed in the test flow path for the pumps listed above.
- b) All of the pump tests will be performed with the system lined up in a recirculation flow path except for the Emergency Fuel Oil Pump testing. Therefore, system flow characteristics will be the same for each test.
- c) In a fixed resistance system (pump running in a recirculation test flow path) pump differential pressure is indicative of pump performance.

For the reasons stated above flow rates will not be measured.

ALTERNATE TESTING:

Pump suction and discharge pressure will be measured and differential pressure calculated instead of flow rate measurement for the Motor Driven and Turbine Driven Aux. Feedwater Pumps, Boric Acid Transfer Pumps and the Centrifugal Charging Pumps. The Emergency Fuel Oil Transfer Pumps' flow rates will be calculated measuring flow from a timed tank volume increase.

RELIEF REQUEST NO. PR-9

PUMPS:

PEF01 A and B, Essential Service Water Pumps

CLASS:

ISI Class 3

TEST REQUIREMENT:

On a pump coupled to the driver the vibration measurement shall be taken on the bearing housing near the coupling. (IWP-4510)

BASIS FOR RELIEF:

The essential service water pumps are vertical, multistage pumps submerged in their process fluid and thus are inaccessible. Therefore, vibration measurement is impractical.

ALTERNATE TESTING:

Vibration measurements will be taken on the pumps' associated motor bearing housing for indication of pump bearing degradation.

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3.0 INSERVICE TESTING PROGRAM FOR VALVES

3.1 General Information

3.1.1 Applicable Code

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

3.1.2 Valve Program Tables

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

VALVE IDENTIFICATION AND IST REQUIREMENTS

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

VALVE NO: The valve identification number.

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

ISI CLASS: The ISI classification of the valve.

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

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

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

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

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

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

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

ANGLE	ANG
BALL	BAL
BUTTERFLY	BTF
CHECK	CK
DIAPHRAGM	DIA
GATE	GA
GLOBE	GL
RELIEF	RV
RUPTURE DIAPHRAGM	RPD
SAFETY	SV
STOP CHECK	SCK
THREE WAY	TWY

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

MOTOR OPERATOR	MO
AIR OPERATOR	AO
SOLENOID OPERATOR	SO
HYDRAULIC OPERATOR	HO
MANUAL	M
SELF ACTUATED	SA

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

O	Normally Open
C	Normally Closed

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

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

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

MAX LEAKG: The maximum leakage allowed during the specified leaktest. The abbreviations for the units of measurement are:

C Standard cubic centimeters per minute.
P Pressure decay in pounds per square inch per minute.
G Gallons per minute

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

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

3.1.3 Measurement of Test Quantities

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

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

SEAT LEAKAGE: Seat leakage is measured by one of the following methods:

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

3.1.4 Allowable Ranges of Test Quantities

- STROKE TIME
- (a) If, for power operated valves, an increase in stroke time of 25% or more from the previous test for valves with stroke times greater than 10 sec. or 50% or more for valves with stroke times less than or equal to 10 sec. is observed, corrective action will be taken. For valves with stroke times less than or equal to five seconds see Relief Request VR-2.
 - (b) Valve stroke time shall not exceed its specified limiting stroke time value.

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POSITION
INDICATION:

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

SEAT LEAKAGE:

- (a) Valve leakage rates shall not exceed either the values specified by Wolf Creek Generating Station or those rates given in IWV-3426.
- (b) For valves 6 in. nominal pipe size and larger the leakage rate shall not exceed one gpm (Relief Request VR-6). If tests show a leakage rate increasing with time, and a projection based on three or more tests indicates that the leakage rate of the next scheduled test will exceed the maximum permissible leakage rate by greater than 10%, corrective action will be taken.

3.1.5

Instrument Accuracy

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

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TABLE 3.1-1

INSERVICE VALVE TESTS

<u>TEST</u>	<u>TEST NAME</u>	<u>TEST DESCRIPTION</u>
AT-1	Type C leaktest	Containment isolation valves will be seat leak tested in accordance with WCGS Technical Specification requirements and Appendix J, 10CFR50.
AT-2	Pressure isolation valve leaktest	Those valves so designated will be leak tested in accordance with WCGS Technical Specification 4.4.6.2.2.
AT-3	Accumulator check valve test	Check valves designed to maintain air-accumulator charge upon loss of normal plant service or instrument air will be subjected to air pressure drop.
BT-0	Full-stroke exercise test to the OPEN position (IWV-3412 and 3413)	Exercise testing in the open direction, verified by stroke time measurement, will be performed to confirm the full stroke capability of each valve. The stroke direction tested and timed (open) is based on the direction the valve disk must travel to fulfill a safety function.
BT-C	Full-stroke exercise test to the CLOSED position (IWV-3412 and 3413)	Exercise testing in the closed direction, verified by stroke time measurement, will be performed to confirm the full stroke capability of each valve. The stroke direction tested and timed (close) is based on the direction the valve disk must travel to fulfill a safety function.
BT-P	Partial-stroke exercise test (IWV-3412)	Partial-stroke exercise testing will be performed to confirm partial stroke capability of each valve. The stroke direction tested is based on the direction the valve disk must travel to fulfill a safety function.

TABLE 3.1-1

INSERVICE VALVE TESTS (continued)

<u>TEST</u>	<u>TEST NAME</u>	<u>TEST DESCRIPTION</u>
CVT-0	Check valve exercise test to OPEN position (IWV-3520)	Check valves will be exercised from the fully closed to the fully open positions. Verification of safety basis system flow or full stroke calculated flow through a check valve shall be an adequate demonstration that the valve is full open.
CVT-C	Check valve exercise test to CLOSED position (IWV-3520)	Check valves will be exercised from the fully open to the fully closed positions. The stroke direction tested (closed) is based on the direction the valve disk must travel to fulfill a safety function.
CVP-0	Partial check valve exercise test to OPEN position (IWV-3522)	Partial check valve exercise test to the open position.
RVT	Relief valve set point verification test (IWV-3510)	Relief and safety valve set point will be verified in accordance with IWV-3510.
FST	Fail-safe test (IWV-3415)	Valves with fail-safe actuators will be tested to verify proper fail-safe operation upon loss of actuator electric power.
PIT	Position indication checks (IWV-3300)	Valves with position indicators will be checked to verify that remote valve indicators accurately reflect valve position.
PAS	Indicates passive valve	This is a passive valve and does not require testing.

TABLE 3.1-2

TEST FREQUENCY

(1)

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

- (1) Operational conditions are defined in WCGS Technical Specifications, page 1-9.
- (2) Inservice valve testing will commence within 72 hours of reaching the cold shutdown conditions as defined in the WCGS Technical Specifications. Testing not completed before startup may be completed during subsequent cold shutdowns. Valve testing need not be performed more often than once every three months. In the case of extended cold shutdowns, the testing need not be started within the 72 hours limitation. However, in these instances, all valve testing must be completed prior to startup.

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

SECTION 3.2

RELIEF REQUESTS FOR INSERVICE VALVE TESTING PROGRAM

RELIEF REQUEST NO. VR-1

VALVE(S):

See Appendix B

CATEGORY:

A and B

FUNCTION:

Various

TEST REQUIREMENT:

When practical, valves with fail-safe actuators shall be tested by observing the operation of the valves upon loss of actuator power. (IWV-3415)

BASIS FOR RELIEF:

Solenoid and air-operated valves that stroke upon loss of actuator power are the only type in the Wolf Creek IST Program. De-energizing the solenoid or pilot valve during normal valve exercising effectively simulates loss of actuator power.

ALTERNATE TESTING:

Valves which must stroke to a specified position upon loss of actuator power will be exercised in accordance with Paragraph IWV-3412 to their respective fail-safe position. This test will constitute the fail-safe test. No additional testing will be conducted.

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RELIEF REQUEST NO. VR-2

VALVE(S):

See Appendix B

CATEGORY:

A and B

FUNCTION:

Various

TEST REQUIREMENT:

Stroke time shall be compared to previous test results and if the stroke time has increased by 50% or more since the last test, then the frequency of testing shall be increased to once each month. (IWV-3417(a))

BASIS FOR RELIEF:

It is impractical to apply the strict requirements of Paragraph IWV-3417(a) in any meaningful way without installing sophisticated timing devices. Operator reaction time could easily vary by 0.5 seconds thereby adding considerable error to test results of quick-acting valves.

ALTERNATE TESTING:

The stroke times of all valves with stroke times less than or equal to five (5) seconds will be measured and, when required, corrective action will be taken in accordance with Paragraph IWV-3417(b).

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RELIEF REQUEST NO. VR-3

VALVE(S):

BB V-118, BB V-148, BB V-178, BB V-208, BG V-135, BG 8381, BL 8046, EG V-204, EM V-006, EP V-046, KA V-039, KA V-204, KC V-478, SJ V-111

CATEGORY:

A, C

FUNCTION:

Various depending on component and system function.

TEST REQUIREMENT:

Check valves shall be exercised at least once every 3 months, except as provided by IWV-3522. (IWV-3521)

BASIS FOR RELIEF:

When these valves are in operation there is no practical means to test valve closure. Therefore a seat leak test will be conducted to verify valve closure.

ALTERNATE TESTING:

Verification of valve closure will be done in conjunction with the 10 CFR 50 Appendix J Type C leak tests (AT-1) conducted during each refueling outage.

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RELIEF REQUEST NO. VR-4

VALVE(S):

BB 8948A through D, BB 8949A through D, BB V-001, BB V-022, BB V-040, BB V-059, EM 8815, EP 8818A through D, EP 8956A through D, EP V-010, EP V-020, EP V-030, EP V-040.

CATEGORY:

A, C and C

FUNCTION:

Reactor coolant system pressure boundary isolation.

TEST REQUIREMENT:

Check valves shall be exercised at least once every 3 months, except as provided by IWV-3522. (IWV-3521)

BASIS FOR RELIEF:

- a) Exercising these valves to the open direction during power operation can not be done due to the systems not being able to overcome Reactor Coolant System Pressure. The high pressure coolant injection valves are an exception to this but would cause a power decrease due to the injection of boric acid into the Reactor Coolant System.
- b) Testing of these valves during cold shutdown is impractical due to the inherent danger of cold over pressurization of the RCS.
- c) The only practical method of verifying valve closure is to conduct a seat leak test.

ALTERNATE TESTING:

Valves will be full-stroked in the open direction during each reactor refueling outage. Verification of valve closure will be done in conjunction with intersystem LOCA leak testing (AT-2) which will be performed at each refueling outage.

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RELIEF REQUEST NO. VR-5

VALVE(S):

See Appendix B

CATEGORY:

A and A, C

FUNCTION:

Various

TEST REQUIREMENT:

Category A valves shall be leak tested. (IWV-3420)

BASIS FOR RELIEF:

Section XI testing requirements are essentially the same as those of Appendix J and therefore it would be impractical to perform separate leak tests.

ALTERNATE TESTING:

These valves will be leak tested in accordance with the Appendix J requirements of 10 CFR 50.

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RELIEF REQUEST NO. VR-6

VALVE(S):

See Appendix B

CATEGORY:

A and A, C

FUNCTION:

Various

TEST REQUIREMENT:

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

BASIS FOR RELIEF:

These valves are located inside containment and testing on an increased frequency would increase exposure for testing personnel. Testing is now being performed during mode 3 to minimize exposure. With increased frequency, operational constraints would be placed upon the plant requiring possible shut down for testing. Therefore, corrective action per IWV-3427(b) will not be used due to ALARA considerations and operational constraints on the plant.

ALTERNATE TESTING:

Valves will be replaced or repaired as required when the leakage rate exceeds the one (1) gpm maximum leakage rate as stated in Wolf Creek Generating Station Technical Specifications.

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RELIEF REQUEST NO. VR-7

VALVE(S):

BG 8546A and B

CATEGORY:

C

FUNCTION:

Provide flowpaths to the centrifugal charging pumps from the refueling water storage tank.

TEST REQUIREMENT:

Check valves shall be exercised at least once every 3 months, except as provided by IWV-3522. (IWV-3521)

BASIS FOR RELIEF:

- a) Full-stroke or partial-stroke exercising of these valves during normal operation would increase the boron inventory in the reactor coolant system thus increasing the potential for plant shutdown.
- b) Exercising of these valves during cold shutdown requires using the safety injection flowpath which could result in potential reactor coolant system overpressurization.

ALTERNATE TESTING:

Valves will be full-stroke exercised open during each refueling outage.

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RELIEF REQUEST NO. VR-8

NOT USED

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RELIEF REQUEST NO. VR-9

VALVE(S):

EF V-241, EF V-242

CATEGORY:

C

FUNCTION:

Provide flowpaths from service water system A and B trains to the ultimate heat sink and pressure isolation of the service water system from the ultimate heat sink.

TEST REQUIREMENT:

Check valves shall be exercised at least once every 3 months, except as provided by IWV-3522. (IWV-3521)

BASIS FOR RELIEF:

Valve location does not permit adequate reverse flow for check valve stroke testing. Therefore the only positive means to verify that the disk is on its seat is to disassemble and observe valve operability.

ALTERNATE TESTING:

Valves will be disassembled and inspected for operability during each reactor refueling outage.

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RELIEF REQUEST NO. VR-10

NOT USED

RELIEF REQUEST NO. VR-11

VALVE(S):

EJ HV-8811 A and B

CATEGORY:

B

FUNCTION:

RHR containment sump isolation valve. Isolate the containment sump from the RHR pumps and open in the recirculation mode to line up RHR pumps to the sump.

TEST REQUIREMENT:

Category A and B valves shall be exercised at least once every 3 months, except as provided by IWV-3412(a), IWV-3415, and IWV-3416. (IWV-3411)

BASIS FOR RELIEF:

Opening these valves during normal operation or cold shutdown will drain the RHR system to the containment sump.

ALTERNATE TESTING:

These valves will be exercised during each reactor refueling outage.

RELIEF REQUEST NO. VR-12

VALVE(S):

EM V-001, EM V-002, EM V-003, EM V-004, EM 8922A and B

CATEGORY:

A, C and C

FUNCTION:

V-001, V-002, V-003, V-004: Pressure boundary isolation valves for safety injection pump hot leg injection.
8922A and B: Safety injection pumps discharge check valves.

TEST REQUIREMENT:

Check valves shall be exercised at least once every 3 months, except as provided by IWV-3522. (IWV-3521)

BASIS FOR RELIEF:

- a) During normal operation these valves will not stroke against full RCS pressure.
- b) Stroking these valves during cold shutdown could result in overpressurization of the RCS.

ALTERNATE TESTING:

Valves will be full-stroke exercised open during each reactor refueling outage.

RELIEF REQUEST NO. VR-13

VALVE(S):

EM V-001, EM V-002, EM V-003, EM V-004, EM 8815

CATEGORY:

A, C

FUNCTION:

V-001, V-002, V-003 and V-004: Pressure boundary isolation valves for safety injection pump hot leg injection.

8815: Pressure isolation for high pressure coolant injection line.

TEST REQUIREMENT:

Check valves shall be exercised at least once every 3 months, except as provided by IWV-3522. (IWV-3521)

BASIS FOR RELIEF:

The only practical method of verifying valve closure is to conduct a seat leak test.

ALTERNATE TESTING:

Verification of valve closure will be done in conjunction with intersystem LOCA leak testing (AT-2) which will be performed at each refueling outage.

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RELIEF REQUEST NO. VR-14

VALVE(S):

EM 8926 A and B

CATEGORY:

C

FUNCTION:

Opens on flow from the Refueling Water Storage Tanks to the suction of the Safety Injection Pumps.

TEST REQUIREMENT:

Check valves shall be exercised at least once every 3 months, except as provided by IWV-3522. (IWV-3521)

BASIS FOR RELIEF:

- a) Full-stroke exercising during normal operation cannot be accomplished since safety injection pump discharge pressure is not enough to overcome reactor coolant pressure.
- b) Exercising these valves during cold shutdown could result in overpressurization of the reactor coolant system.

ALTERNATE TESTING:

Valves will be partial-stroke exercised quarterly and full-stroke exercised open during each refueling outage.

RELIEF REQUEST NO. VR-15

VALVE(S):

EN V-002, EN V-008, EN V-013, EN V-017

CATEGORY:

C

FUNCTION:

V-002, V-008: Prevent draining RWST and containment spray system to the containment sump.

V-013, V-017: Containment spray containment isolation valves; open to pressurize containment spray headers.

TEST REQUIREMENT:

Check valves shall be exercised at least once every 3 months, except as provided by IWV-3522. (IWV-3521)

BASIS FOR RELIEF:

No means exist for testing these valves open without taking a suction from the containment sump or discharging water through the spray headers.

ALTERNATE TESTING:

Valves will be disassembled and inspected for operability during each refueling outage.

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RELIEF REQUEST NO. VR-16

VALVE(S):

EN HV-1, EN HV-7

CATEGORY:

B

FUNCTION:

Provides flow path from containment recirculation sump to containment spray pumps.

TEST REQUIREMENT:

Category A and B valves shall be exercised at least once every 3 months, except as provided by IWV-3412 (a), IWV-3415, and IWV-3416. (IWV-3411)

BASIS FOR RELIEF:

Upon exercising these valves during normal operation or cold shut-down there exists the possibility of draining the containment spray pumps suction lines which could severely effect the containment spray pumps' operation.

ALTERNATE TESTING:

Valves will be full-stroke exercised both open and close during each refueling outage.

RELIEF REQUEST NO. VR-17

VALVE(S):

EN V-003, EN V-004, EN V-009, EN V-010

CATEGORY:

C

FUNCTION:

Provide flow path from refueling water storage tank to the spray headers.

TEST REQUIREMENT:

Check valves shall be exercised at least once every 3 months, except as provided by IWV-3522. (IWV-3521)

BASIS FOR RELIEF:

The flow path that would provide sufficient flow to fully open these valves cannot be utilized since it could result in spraying containment.

ALTERNATE TESTING:

Valves will be partial-stroke exercised open every 3 months.

RELIEF REQUEST NO. VR-18

VALVE(S):

EP HV-8950 A through F

CATEGORY:

B

FUNCTION:

Safety injection accumulator vent valves

TEST REQUIREMENT:

Category A and B valves shall be exercised at least once every 3 months, except as provided by IWV-3412(a), IWV-3415, and IWV-3416. (IWV-3411)

BASIS FOR RELIEF:

Opening these valves could bleed down the associated safety injection accumulators and if the valves failed open it would render a portion of the ECCS inoperable forcing plant shutdown.

ALTERNATE TESTING:

These valves will be fail-safe tested and full-stroke exercised both open and close during each refueling outage.

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RELIEF REQUEST NO. VR-19

VALVE(S):

KA FV-29, KA HV-30

CATEGORY:

A and B respectively

FUNCTION:

FV-29 provides containment isolation from the instrument air supply.

HV-30 provides isolation from instrument air supply to the hydrogen control system.

TEST REQUIREMENT:

Category A and B valves shall be exercised at least once every 3 months, except as provided by IWV-3412(a), IWV-345, and IWV-3416. (IWV-3411)

BASIS FOR RELIEF:

- a) Stroking FV-29 would interrupt the supply of instrument air to valves and equipment necessary for system control and operation during all phases of plant operation.
- b) Stroking HV-30 would reduce the supply of instrument air to valves and equipment necessary for plant operation.

ALTERNATE TESTING:

Valves FV-29 and HV-30 will be fail-safe tested, full-stroke exercised close and full-stroke exercised open, respectively, during each refueling outage.

RELIEF REQUEST NO. VR-20

VALVE(S):

KA V-648, KA V-649, KA V-650, KA V-651

CATEGORY:

A, C

FUNCTION:

These valves maintain the auxiliary feedwater control/main steam atmosphere relief valve accumulators (TKA02 through 05) pressurized in the event that the service air is lost.

TEST REQUIREMENT:

Check valves shall be exercised at least once every 3 months, except as provided by IWV-3522. (IWV-3521)

BASIS FOR RELIEF:

There is no convenient means to verify operation of these valves without adversely affecting the availability of the associated safety-related components.

ALTERNATE TESTING:

Verification of valve closure will be done in conjunction with pressure drop testing (AT-3) which will be performed at each refueling outage.

RELIEF REQUEST NO. VR-21

VALVE(S):

KJ V-711 A and B, KJ V-712 A and B

CATEGORY:

A, C

FUNCTION:

These valves maintain the diesel generator starting air tanks pressurized in the event that the normal starting air supply line is broken.

TEST REQUIREMENT:

Check valves shall be exercised at least once every 3 months, except as provided by IWV-3522. (IWV-3521)

BASIS FOR RELIEF:

There is no convenient means to verify operation of these valves without disabling the diesel generators.

ALTERNATE TESTING:

Verification of valve closure will be done in conjunction with pressure drop testing (AT-3) which will be performed at each refueling outage.

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RELIEF REQUEST NO. VR-22

VALVE(S):

EM V-240 and EM V-241

CATEGORY:

C

FUNCTION:

Provides flow from the centrifugal charging pumps to the boron injection tank.

TEST REQUIREMENT:

Check valves shall be exercised at least once every 3 months, except as provided by IWV-3522. (IWV-3521)

BASIS FOR RELIEF:

During normal operation stroking these valves would result in injecting borated water into the RCS and thus could result in a decrease in power and thermal shock the reactor coolant piping. Stroking these valves during cold shutdown could result in overpressurization of the RCS.

ALTERNATE TESTING:

Valves will be full-stroke exercised open during each refueling outage.

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APPENDIX A
PUMP TESTING PROGRAM

WOLF CREEK NUCLEAR PLANT
INSERVICE TESTING PROGRAM PUMPS

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PUMP IDENTIFICATION					IST REQUIREMENTS							
PUMP NUMBER	SYSTEM	ISI CLASS	P&ID NUMBER	P&ID COORD	SPEED	SUCT. PRESS	DIFF. PRESS	FLOW RATE	VIBRA	BRG. TEMP	LUBRICANT LEV OR PRESS	REMARKS
PAL01 A	AUX FD	3	M-02AL01	E-4	N/A ¹	YES	YES	PR-8	YES	PR-1	YES	PR-2
PAL01 B	AUX FD	3	M-02AL01	H-4	N/A ¹	YES	YES	PR-8	YES	PR-1	YES	PR-2
PAL02	AUX FD	3	M-02AL01	B-4	YES	YES	YES	PR-8	YES	PR-1	YES	PR-2
PBG02 A	CVCS	3	M-02BG05	B-6	N/A ¹	YES	YES	PR-8	PR-6	PR-1	PR-5	PR-2
PBG02 B	CVCS	3	M-02BG05	A-6	N/A ¹	YES	YES	PR-8	PR-6	PR-1	PR-5	PR-2
PBG05 A	CVCS	2	M-02BG03	C-5	N/A ¹	YES	YES	PR-8	YES	PR-1	YES	PR-2
PBG05 B	CVCS	2	M-02BG03	B-5	N/A ¹	YES	YES	PR-8	YES	PR-1	YES	PR-2
PEC01 A	FPC	3	M-02EC01	H-6	N/A ¹	YES	YES	YES	YES	PR-1	YES	PR-2
PEC01 B	FPC	3	M-02EC01	E-6	N/A ¹	YES	YES	YES	YES	PR-1	YES	PR-2
PEF01 A	ESW	3	M-K2EF01	G-6	N/A ¹	PR-3	YES	YES	PR-9	PR-1	YES	PR-2
PEF01 B	ESW	3	M-K2EF01	C-6	N/A ¹	PR-3	YES	YES	PR-9	PR-1	YES	PR-2
PEG01 A	CCW	3	M-02EG01	G-4	N/A ¹	YES	YES	YES	YES	PR-1	YES	PR-2
PEG01 B	CCW	3	M-02EG01	D-4	N/A ¹	YES	YES	YES	YES	PR-1	YES	PR-2

NOTE: 1. IWP-4400 states that for pumps directly coupled to synchronous or induction type motor drivers, pump speed need not be measured.

2. Frequency of testing will be in accordance with IWP-3400 which requires an inservice test to be run every three months during normal operation.

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WOLF CREEK NUCLEAR PLANT
INSERVICE TESTING PROGRAM PUMPS

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PUMP IDENTIFICATION					IST REQUIREMENTS							
PUMP NUMBER	SYSTEM	ISI CLASS	P&ID NUMBER	P&ID COORD	SPEED	SUCT. PRESS	DIFF. PRESS	FLOW RATE	VIBRA	BRG. TEMP	LUBRICANT LEV OR PRESS	REMARKS
PEG01 C	CCW	3	M-02EG01	E-4	N/A ¹	YES	YES	YES	YES	PR-1	YES	PR-2
PEG01 D	CCW	3	M-02EG01	B-4	N/A ¹	YES	YES	YES	YES	PR-1	YES	PR-2
PEJ01 A	RHR	2	M-02EJ01	G-6	N/A ¹	YES	YES	YES	YES	PR-1	YES	PR-2
PEJ01 B	RHR	2	M-02EJ01	C-6	N/A ¹	YES	YES	YES	YES	PR-1	YES	PR-2
PEM01 A	SIS	2	M-02EM01	E-6	N/A ¹	YES	YES	YES	YES	PR-1	YES	PR-2
PEM01 B	SIS	2	M-02EM01	D-6	N/A ¹	YES	YES	YES	YES	PR-1	YES	PR-2
PEN01 A	CS	2	M-02EN01	G-6	N/A ¹	YES	YES	YES	YES	PR-1	YES	PR-2
PEN01 B	CS	2	M-02EN01	B-6	N/A ¹	YES	YES	YES	YES	PR-1	YES	PR-2
PJE01 A	FOT	3	M-02JE01	E-7	N/A ¹	PR-3	YES	PR-8	PR-4	PR-1	PR-5	PR-2 PR-7
PJE01 B	FOT	3	M-02JE01	A-7	N/A ¹	PR-3	YES	PR-8	PR-4	PR-1	PR-5	PR-2 PR-7

NOTE: 1. IWP-4400 states that for pumps directly coupled to synchronous or induction type motor drivers, pump speed need not be measured.

2. Frequency of testing will be in accordance with IWP-3400 which requires an inservice test to be run every three months during normal operation.

APPENDIX B
VALVE TESTING PROGRAM

.DATE 25 JUL 84 09:54:20 RID

2 11 APR 84 JEFF

*SYSTEM: MAIN STEAM (AB)

WCGS INSERVICE TESTING PROGRAM C.WG. NO.: M-02A801

* VALVE NO.	P&ID COOR.	ISI CLASS	IST CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	NORM POS	TEST RMT.	TEST FRE	MAX STRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
PV-1	G-3	2	B	10	GL	AO	C	BT-C	CS	20		VR-1	NOTE 1
								BT-O	CS	20			
								FST	CS				
PV-2	D-3	2	B	10	GL	AO	C	PIT	2Y				
								BT-C	CS	20		VR-1	NOTE 1
								BT-O	CS	20			
								FST	CS				
PV-3	D-6	2	B	10	GL	AO	C	PIT	2Y				
								BT-C	CS	20		VR-1	NOTE 1
								BT-O	CS	20			
								FST	CS				
PV-4	G-6	2	B	10	GL	AO	C	PIT	2Y				
								BT-C	CS	20		VR-1	NOTE 1
								BT-O	CS	20			
								FST	CS				
								PIT	2Y				

..... END REPORT

[illegible]

*SYSTEM: MAIN STEAM (AB)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: H-024B02

* VALVE * NO.	PRID COORD.	ISI CLASS	IST CAI	VALVE SIZE	VALVE TYPE	ACT TYPE	NORM POS	TEST ROMT.	TEST FRE	MAX STRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
V-065	D-7	2	C	6	SV	SA	C	RVT	SY				
V-066	D-7	2	C	6	SV	SA	C	RVT	SY				
V-067	D-6	2	C	6	SV	SA	C	RVT	SY				
V-068	D-5	2	C	6	SV	SA	C	RVT	SY				
V-069	D-5	2	C	6	SV	SA	C	RVT	SY				
V-070	E-7	2	C	6	SV	SA	C	RVT	SY				
V-071	E-7	2	C	6	SV	SA	C	RVT	SY				
V-072	E-6	2	C	6	SV	SA	C	RVT	SY				
V-073	E-5	2	C	6	SV	SA	C	RVT	SY				
V-074	E-5	2	C	6	SV	SA	C	RVT	SY				

..... END REPORT

DATE 11 JUL 84 13:12:19 RID 48 16 MAY 84 JEFF

*SYSTEM: MAIN FEEDWATER (AE)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-02AE01

* VALVE NO.	P&ID COOR.	ISI CLASS	IST CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	RODM POS	TEST ROHT.	TEST FRE	MAX STRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
* FCV-510	E-7	NC	B	14	ANG	AO	0	BT-C	CS	5		VR-1	NOTE 3
* FCV-520	C-7	NC	B	14	ANG	AO	0	FST	CS			VR-2	
* FCV-530	B-7	NC	B	14	ANG	AO	0	PIT	2Y			VR-1	NOTE 3
* FCV-540	B-7	NC	B	14	ANG	AO	0	BT-C	CS	5		VR-2	NOTE 3
* FCV-550	E-7	NC	B	4	GL	AO	C	FST	CS			VR-1	NOTE 4
* FCV-560	C-7	NC	B	4	GL	AO	C	PIT	2Y			VR-2	
* FCV-570	A-7	NC	B	4	GL	AO	C	BT-C	CS	5		VR-1	NOTE 4
* FCV-580	B-7	NC	B	4	GL	AO	C	FST	CS			VR-2	
* FCV-590	A-7	NC	B	4	GL	AO	C	PIT	2Y			VR-1	NOTE 4
* FCV-600	B-7	NC	B	4	GL	AO	C	BT-C	CS	5		VR-2	
* FCV-610	E-7	NC	B	4	GL	AO	C	FST	CS			VR-1	NOTE 4
* FCV-620	C-7	NC	B	4	GL	AO	C	PIT	2Y			VR-2	

..... END REPORT

DATE 11 JUL 84 13:12:44 RID

4 03 MAY 84 JEFF

*SYSTEM: MAIN FEEDWATER (AC)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: N-02AE02

* VALVE NO.	PWD CORR.	ISI CLASS	ISI CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	NORM PGS	TEST RORT.	TEST FPE	MAX STRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
FV-39	B-3	2	B	14	GA	AD	0	BT-C	CS	5		VR-1	NOTE 5
								BT-P	Q			VR-2	
								FST	CS				
FV-40	C-3	2	B	14	GA	AD	0	PIT	2Y				
								BT-C	CS	5		VR-1	NOTE 5
								BT-P	Q			VR-2	
								FST	CS				
FV-41	C-6	2	B	14	GA	AD	0	PIT	2Y				
								BT-C	CS	5		VR-1	NOTE 5
								BT-P	Q			VR-2	
								FST	CS				
FV-42	B-6	2	B	14	GA	AD	0	PIT	2Y				
								BT-C	CS	5		VR-1	NOTE 5
								BT-P	Q			VR-2	
								FST	CS				
FV-43	B-4	2	B	1	GL	AD	C	PIT	2Y				
FV-44	D-4	2	B	1	GL	AD	C	PAS	NA				
FV-45	D-7	2	B	1	GL	AD	C	PAS	NA				
FV-46	E-7	2	B	1	GL	AD	C	PAS	NA				
V-120	C-4	2	C	14	CK	SA	0	PAS	NA				
								CVT-0	Q				NOTE 5
V-121	F-4	2	C	14	CK	SA	0	CVT-C	CS				
								CVT-0	Q				NOTE 5
V-122	F-7	2	C	14	CK	SA	0	CVT-C	CS				
								CVT-0	Q				NOTE 5
V-123	C-7	2	C	14	CK	SA	0	CVT-C	CS				
								CVT-0	Q				NOTE 5
V-124	C-3	2	C	4	CK	SA	C	CVT-C	CS				
V-125	F-3	2	C	4	CK	SA	C	CVT-0	CS				NOTE 6
V-126	F-6	2	C	4	CK	SA	C	CVT-0	CS				NOTE 6
V-127	C-6	2	C	4	CK	SA	C	CVT-0	CS				NOTE 6
V-132	C-3	2	C	1	CK	SA	C	CVT-0	CS				NOTE 6
V-133	G-3	2	C	1	CK	SA	C	PAS	NA				
V-134	G-6	2	C	1	CK	SA	C	PAS	NA				
V-135	C-6	2	C	1	CK	SA	C	PAS	NA				

..... END REPORT

DATE 25 JUL 84 11:19:35 RID

6 03 MAY 84 JEFF

SYSTEM: REACTOR COOLANT (BB)

MOGS INSERVICE TESTING PROGRAM DWG. NO.: M-020001

VALVE NO.	P&ID COOR.	ISI CLASS	IST CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	NORM POS	TEST RORT.	TEST FRE	MAX STRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
8378A	E-4	1	C	3	CK	SA	0	CVT-0	0				
8378B	E-4	1	C	3	CK	SA	0	CVT-0	0				
8379A	E-7	1	C	3	CK	SA	0	CVT-0	0				
8379B	E-7	1	C	3	CK	BA	0	CVT-0	0				
8948A	E-4	1	A,C	10	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
								CVT-C	RR				
8948B	D-4	1	A,C	10	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
								CVT-C	RR				
8948C	D-6	1	A,C	10	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
								CVT-C	RR				
8948D	E-6	1	A,C	10	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
								CVT-C	RR				
8949A	E-5	1	A,C	6	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
								CVT-C	RR				
8949B	E-5	1	A,C	6	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
								CVT-C	RR				
8949C	E-6	1	A,C	6	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
								CVT-C	RR				
8949D	D-6	1	A,C	6	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
								CVT-C	RR				
V-001	D-5	1	A,C	1.5	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
								CVT-C	RR				
V-022	D-4	1	A,C	1.5	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
								CVT-C	RR				
V-040	D-6	1	A,C	1.5	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
								CVT-C	RR				
V-059	E-6	1	A,C	1.5	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
								CVT-C	RR				
PV-8702A	E-4	1	A	12	GA	MO	C	AT-2	CS			VR-6	NOTES 8,36
								BT-0	CS	120			
								BT-C	CS	120			
								PIT	2Y				
PV-8702B	H-6	1	A	12	GA	MO	C	AT-2	CS			VR-6	NOTES 8,36
								BT-0	CS	120			
								BT-C	CS	120			
								PIT	2Y				

..... END REPORT

Rev. 1

7/84

DATE 11 JUL 84 13:15:06 RID
 *SYSTEM: REACTOR COOLANT (BB)

7 03 MAY 84 JEFF

WCBS INSERVICE TESTING PROGRAM DWG. NO.: H-028B02

* VALVE * NO.	P&ID COORD.	ISI CLASS	ISI CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	NORM POS	TEST RDMT.	TEST FRE	MAX STRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
8010A	H-7	1	C	6	SV	SA	C	RVT	5Y				
8010B	H-6	1	C	6	SV	SA	C	RVT	5Y				
8010C	H-5	1	C	6	SV	SA	C	RVT	5Y				
9-884	C-4	1	C	2	CK	SA	C	PAS	NA				
HV-8000A	E-7	1	B	3	GA	NO	D	BT-D	0	10			NOTE 9
								BT-C	0	10			NOTE 36
HV-8000B	E-7	1	B	3	GA	NO	D	PIT	2Y				
								BT-D	0	10			
								BT-C	0	10			NOTE 36
HV-8026	E-3	2	A	1	DIA	AD	C	PIT	2Y				
								AT-1	RR			VR-1	
								BT-C	0	10		VR-5	
								FST	0				
HV-8027	E-3	2	A	1	DIA	AD	C	PIT	2Y				
								AT-1	RR			VR-1	
								BT-C	0	10		VR-5	
								FST	0				
8037A	E-5	3	B	4	GA	NO	C	PIT	2Y				
								BT-D	0	15			
								BT-C	0	15			NOTE 36
8037B	E-5	3	B	4	GA	NO	C	PIT	2Y				
								BT-D	0	15			
								BT-C	0	15			NOTE 36
8038A	E-2	3	C	3	CK	SA	C	PIT	2Y				
8038B	E-2	3	C	3	CK	SA	C	PAS	NA				
HV-8157A	E-1	3	B	1	GL	SO	C	PAS	NA				
								BT-D	0	10			
HV-8157B	E-1	3	B	1	GL	SO	C	PIT	2Y				
								BT-D	0	10			
PCV-455A	E-7	1	B	3	GL	SO	C	PIT	2Y				
								BT-D	CS	2		VR-1	
								BT-C	CS	2		VR-2	NOTE 10
								FST	CS				
PCV-455B	A-4	1	B	4	BAL	AD	D/C	PIT	2Y				
PCV-455C	B-4	1	B	4	BAL	AD	D/C	PAS	NA				
PCV-455A	E-8	1	B	3	GL	SO	C	PAS	NA				
								BT-D	CS	2		VR-1	
								BT-C	CS	2		VR-2	NOTE 10
								FST	CS				
								PIT	2Y				

..... END REPORT

DATE 11 JUL 84 13:15:23 RID
SYSTEM: REACTOR COOLANT (RB)

8

08 MAY 84 JEFF

WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-028803

* VALVE	FRID	ISI	IST	VALVE	VALVE	ACT	WGRH	TEST	TEST	MAX STRK	MAX	RELIEF	REMARKS
* NO.	COUR.	CLASS	CAT	SIZE	TYPE	TYPE	POS	ROAT.	FRE	TIME	LEAKG	REQUEST	
V-118	E-5	2	A.C	2	CK	SA	0	AT-1	RR			VR-3	
								CVT-0	0			VR-5	
								CVT-C	CS				
V-120	E-4	1	C	2	CK	SA	0	CVT-0	0				
V-121	E-4	1	C	2	CK	SA	0	CVT-0	0				
V-122	E-4	3	C	3	CK	SA	0	CVT-0	0				
V-124	E-5	3	C	.75	RV	SA	C	RV1	SY				
V-148	E-6	2	A.C	2	CK	SA	0	AT-1	RR			VR-3	
								CVT-0	0			VR-5	
								CVT-C	CS				
V-150	E-6	1	C	2	CK	SA	0	CVT-0	0				
V-151	E-6	1	C	2	CK	SA	0	CVT-0	0				
V-152	E-6	3	C	3	CK	SA	0	CVT-0	0				
V-154	E-6	3	C	.75	RV	SA	C	RV1	SY				
V-178	E-6	2	A.C	2	CK	SA	0	AT-1	RR			VR-3	
								CVT-0	0			VR-5	
								CVT-C	CS				
V-180	E-6	1	C	2	CK	SA	0	CVT-0	0				
V-181	E-6	1	C	2	CK	SA	0	CVT-0	0				
V-182	E-6	3	C	3	CK	SA	0	CVT-0	0				
V-184	E-6	3	C	.75	RV	SA	C	RV1	SY				
V-208	E-6	2	A.C	2	CK	SA	0	AT-1	RR			VR-3	
								CVT-0	0			VR-5	
								CVT-C	CS				
V-210	E-6	1	C	2	CK	SA	0	CVT-0	0				
V-211	E-6	1	C	2	CK	SA	0	CVT-0	0				
V-212	E-6	3	C	3	CK	SA	0	CVT-0	0				
V-214	E-6	3	C	.75	RV	SA	C	RV1	SY				
SV-13	C-2	3	B	3	GA	MO	0	BT-0	CS	30			NOTES 11,36
								BT-C	CS	30			
								PIT	2Y				
HV-14	C-6	3	B	3	GA	MO	0	BT-0	CS	30			NOTES 11,36
								BT-C	CS	30			
								PIT	2Y				
HV-15	C-6	3	B	3	GA	MO	0	BT-0	CS	30			NOTES 11,36
								BT-C	CS	30			
								PIT	2Y				
HV-16	C-6	3	B	3	GA	MO	0	BT-0	CS	30			NOTES 11,36
								BT-C	CS	30			
								PIT	2Y				
HV-8141A	E-3	2	B	.75	GL	AO	0	PAS	NA				
HV-8141B	E-6	2	B	.75	GL	AO	0	PAS	NA				
HV-8141C	C-6	2	B	.75	GL	AO	0	PAS	NA				
HV-8141D	C-6	2	B	.75	GL	AO	0	PAS	NA				
HV-8351A	C-5	2	A	2	GL	MO	0	AT-1	RR			VR-5	NOTES 12,36
								BT-0	CS	10			
								BT-C	CS	10			
								PIT	2Y				
HV-8331B	C-6	2	A	2	GL	MO	0	AT-1	RR			VR-5	NOTES 12,36
								BT-0	CS	10			

SYSTEM:	REACTOR COOLANT (88)	ISI	IST	VALVE	WCS	INSERVICE	TESTING	PROGRAM	DWG.	NO.:	TEST	MAX	RELIEF	REMARKS
* VALVE	* NO.	* F&ID	* CLASS	* CAT	* VALVE	* SIZE	* TYPE	* ACT	* POS	* HORA	* TEST	* TIME	* REQUEST	
* NO.	* NO.	* COOR.	* CLASS	* CAT	* SIZE	* TYPE	* TYPE	* TYPE	* POS	* HORA	* TEST	* TIME	* REQUEST	
* HU-8351C	* C-6	* 2	* A	* 2	* GL	* MJ	* 0	* 0	* 0	* 0	* CS	* 10	* VR-5	* NOTES 12.36
* HU-8351D	* C-6	* 2	* A	* 2	* GL	* MJ	* 0	* 0	* 0	* 0	* CS	* 10	* VR-5	* NOTES 12.36
* X														
* X														

..... END REPORT

DATE 11 JUL 84 13:28:15 RID 10 08 MAY 84 JEFF

*SYSTEM: CHEM. AND VOL. CONTROL (86) WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-02BG01

* VALVE	PRID	ISI	ISI	VALVE	VALVE	ACT	NORM	TEST	TEST	MAX STRK	MAX	RELIEF	REMARKS
* NO.	COORD.	CLASS	CAT	SIZE	TYPE	TYPE	POS	ROMT.	FRE	TIME	LEAKG	REQUEST	
8381	F-4	2	A,C	3	CK	SA	0	AT-1	RR			VR-3	
								CVT-D	0			VR-5	
V-019	E-7	2	C	.75	CK	SA	0	CVT-C	CS				
V-135	D-2	2	A,C	.75	CK	SA	C	PAS	NA				
								AT-1	RR			VR-3	
8117	H-3	2	C	2	RV	SA	C	CVT-C	CS			VR-5	
V-203	E-7	3	C	.8	RV	SA	C	RVT	SY				
8121	D-3	2	C	2	RV	SA	C	RVT	SY				
HV-8100	D-2	2	A	2	GL	NO	0	RVT	SY				
								AT-1	RR			VR-5	NOTES 14,36
								BT-C	CS	10			
HV-8112	D-2	2	A	2	GL	NO	0	PIT	2Y				
								AT-1	RR			VR-5	NOTES 14,36
								BT-C	CS	10			
HV-8143	E-3	2	B	1	TW	NO	0	PIT	2Y				
HV-8145	G-7	1	B	2	GL	AO	C	PAS	NA				
HV-8146	F-7	2	B	3	GL	AO	0	PAS	NA				
HV-8147	F-7	2	B	3	GL	AO	C	PAS	NA				
HV-8152	C-2	2	A	3	GL	AO	0	PAS	NA				
								AT-1	RR			VR-1	NOTE 15
								BT-C	CS	10		VR-5	
								FST	CS				
HV-8153A	D-7	1	B	1	GL	SD	C	PIT	2Y				
								BT-D	0	10		VR-1	
								BT-C	0	10			
								FST	0				
HV-8153B	D-7	1	B	1	GL	SD	C	PIT	2Y				
								BT-D	0	10		VR-1	
								BT-C	0	10			
								FST	0				
HV-8154A	D-8	1	B	1	GL	SD	C	PIT	2Y				
								BT-D	0	10		VR-1	
								BT-C	0	10			
								FST	0				
HV-8154B	D-8	1	B	1	GL	SD	C	PIT	2Y				
								BT-D	0	10		VR-1	
								BT-C	0	10			
								FST	0				
HV-8160	F-3	2	A	3	GL	SD	0	PIT	2Y				
								AT-1	RR			VR-1	NOTE 15
								BT-C	CS	10		VR-5	
								FST	0				
HCV-123	E-5	2	B	1	GL	AO	C	PIT	2Y				
								BT-C	0	60		VR-1	
								FST	0				
LCV-459	G-7	1	B	3	GL	AO	0	PIT	2Y				
								BT-C	CS	>15		VR-1	(> OR = TO 15)
								FST	CS				NOTE 16
LCV-460	D-7	1	B	3	GL	AO	0	PIT	2Y				
								BT-C	CS	>15		VR-1	(> OR = TO 15)

..... END REPORT

FST	CS
PII	2Y

DATE 11 JUL 84 13:20:50 RID 11 08 MAY 84 JEFF

SYSTEM: CHEM. AND VOL. CONTROL (BG)

WCGS INSERVICE TESTING PROGRAM DNG. NO.: M-028602

* VALVE	PSID	IST	IST	VALVE	VALVE	ACT	NORM	TEST	TEST	MAX STRK	MAX	RELIEF	REMARKS
* NO.	COORD.	CLASS	CAT	SIZE	TYPE	TYPE	POS	ROMT.	FRE	TIME	LEAKG	REQUEST	
U-028	B-6	3	C	.75	RV	SA	C	RVT	SY				
8119	D-4	2	C	2	RV	SA	C	RVT	SY				
TV-130	H-5	3	B	6	BTF	AD	0	PAS	NA				
LCV-112A	E-2	2	B	3	TWY	AD	HA	PAS	NA				

..... END REPORT

DATE 16 JUL 84 13:25:43 RID 12 08 MAY 84 JEFF

*SYSTEM: CHEM. AND VOL. CONTROL (BG) WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-02BG03

* VALVE NO.	P&ID COOR.	ISI CLASS	IST CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	NOHM POS	TEST ROAT.	TEST FRE	MAX STRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
8113	E-4	2	C	1.5	RV	SA	C	RVT	5Y				
8123	H-3	2	C	2	RV	SA	C	RVT	5Y				
8440	E-4	2	C	4	CK	SA	C	CVT-D	Q				
8481A	E-4	2	C	4	CK	SA	C	CVT-D	Q				
8481B	B-4	2	C	4	CK	SA	C	CVT-D	Q				
8497	E-4	2	C	3	CK	SA	C	CVT-C	Q				
V-8546A	C-7	2	C	8	CK	SA	C	CVT-D	RR			VR-7	
V-8546B	D-7	2	C	8	CK	SA	C	CVT-D	RR			VR-7	
V-091	E-4	2	C	2	CK	SA	C	CVT-D	Q				
V-095	E-4	2	C	2	CK	SA	C	CVT-D	Q				
HV-8105	E-2	2	A	3	GA	NO	0	AT-1	RR			VR-5	NOTES 17,36
								BT-C	CS	10			
HV-8106	E-2	2	B	3	GA	NO	0	PIT	2Y				
								BT-C	CS	10			NOTES 17,36
HV-8109	E-5	2	B	2	GL	NO	C	PIT	2Y				
HV-8110	E-4	2	B	2	GL	NO	0	PAS	NA				
								BT-D	Q	10			NOTE 36
								BT-C	Q	10			
HV-8111	E-4	2	B	2	GL	NO	0	PIT	2Y				
								BT-D	Q	10			NOTE 36
								BT-C	Q	10			
FCV-121	D-4	2	B	3	GL	NO	0	PIT	2Y				
HCV-182	E-3	2	B	3	GL	AD	0	PAS	NA				
LCV-1128	F-6	2	B	4	GA	NO	0	PAS	NA				
								BT-C	CS	10			NOTES 18,36
LCV-112C	F-6	2	B	4	GA	NO	0	PIT	2Y				
								BT-C	CS	10			NOTES 18,36
V-589	B-4	2	C	1	CK	SA	C	PIT	2Y				
								CVT-D	Q				
V-590	C-4	2	C	1	CK	SA	C	CVT-C	Q				
								CVT-D	Q				
V-591	D-3	2	C	2	CK	SA	C	CVT-C	Q				
HV-8357A	E-4	2	B	1	GL	SO	C	CVT-C	CS				NOTE 38
								BT-D	Q	10			
								BT-C	Q	10			
HV-8357B	B-4	2	B	1	GL	SO	C	PIT	2Y				
								BT-D	Q	10			
								BT-C	Q	10			
FCV-1118	G-5	2	B	2	DIA	AD	C	PIT	2Y				
V-524	C-6	3	C	.8	RV	SA	C	PAS	NA				
V-525	A-6	3	C	.8	RV	SA	C	RVT	5Y				
8120	G-7	2	C	3	RV	SA	C	RVT	5Y				
8124	C-7	2	C	.8	RV	SA	C	RVT	5Y				
V-207	G-4	3	C	.8	RV	SA	C	RVT	5Y				

..... END REPORT

DATE 11 JUL 84 13:22:21 RID 45 16 MAY 84 JEFF

*SYSTEM: CHEM. AND VOL. CONTROL (86)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-028604

* VALVE	P&ID	ISI	ISI	VALVE	VALVE	ACT	NORM	TEST	TEST	MAX STRK	MAX	RELIEF	REMARKS
* NO.	COORD.	CLASS	CAI	SIZE	TYPE	TYPE	POS	RDNT.	FRE	TIME	LEAKG	REQUEST	
7006	E-4	2	C	.8	RV	SA	C	RJT	5Y				
..... END REPORT													

DATE	TIME	VALVE	CLASS	IST	IST	VALVE	VALVE	ACT	NORM	TEST	DWG.	NO.	TEST	MAX	RELIEF	REMARKS	
						SIZE	TYPE	TYPE	POS	ROUT.			FRE.	TIME	REQUEST		
DATE 11 JUL 84	13:21:50	RID	13	08	MAY 84	JEFF											
*SYSTEM: CHER. AND VOL. CONTROL (B6) WGS INSERVICE TESTING PROGRAM																	
* VALVE	NO.	IST	CLASS	IST	VALVE	VALVE	ACT	NORM	TEST	DWG.	NO.	TEST	MAX	RELIEF <td>REMARKS</td>	REMARKS		
					SIZE	TYPE	TYPE	POS	ROUT.			FRE.	TIME	REQUEST			
8426	B-8	3	3	C	3	CK	SA	C	CVT-0	0							
U-147	B-8	3	3	C	3	CK	SA	C	CVT-0	0							
U-155	B-6	3	3	C	3	CK	SA	C	PAS	NA							
U-154	B-3	3	3	C	3	CK	SA	C	PAS	NA							
U-165	A-6	3	3	C	3	CK	SA	C	PAS	NA							
U-174	A-4	2	2	C	3	CK	SA	C	CVT-0	0							
U-180	E-3	3	3	C	2	CK	SA	C	CVT-0	CS							
U-184	A-4	2	2	C	2	CK	SA	C	PAS	NA							
U-8104	A-4	2	2	B	2	GL	MD	C	PAS	NA							
* FCV-1104	B-3	3	3	B	2	GL	MD	C	PIT	2Y			10			NOTE 19	
* U-167	B-6	3	3	C	3	CK	SA	C	PST	0							
* U-188	B-2	2	2	C	1	CK	SA	C	PIT	2Y			10			NOTE 36	
..... END REPORT																	
UR-1																	

DATE 11 JUL 84 13:23:10 RID 14 08 MAY 84 JEFF

*SYSTEM: REACTOR MAKE-UP WATER (BL) MCGS INSERVICE TESTING PROGRAM DNG. NO.: N-020L01

* VALVE NO.	P&ID COOR.	ISI CLASS	ISI CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	HORN POS	TEST RONT.	TEST FRE	MAX STRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
8046	B-3	2	A.C	3	CK	SA	0	AT-1	RR			VR-3	
HP-8047	B-4	2	A	3	DIA	A0	0	CVI-C	CS			VR-5	
								AT-1	RR			VR-1	
								BT-C	0	10		VR-5	
								FSI	0				
								PIT	2Y				

..... END REPORT

DATE 11 JUL 84 13:26:10 RID 15 08 MAY 84 JEFF

SYSTEM: STEAM GEN. BLOWDOWN (BM)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-028M01

* VALVE * NO.	PAID COORD.	ISI CLASS	IST CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	NORM POS	TEST RDHT.	TEST FRE	MAX STRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
V-045	A-4	2	A	3	GA	H	C	AT-1	RR			VR-5	
V-046	A-3	2	A	3	GA	H	C	AT-1	RR			VR-5	
HV-1	E-5	2	B	4	GL	AO	D	BT-C	CS	10		VR-1	NOTE 20
								FST	CS				
HV-2	E-5	2	B	4	GL	AO	D	PIT	2Y				
								BT-C	CS	10		VR-1	NOTE 20
								FST	CS				
HV-3	C-5	2	B	4	GL	AO	D	PIT	2Y				
								BT-C	CS	10		VR-1	NOTE 20
								FST	CS				
HV-4	A-5	2	B	4	GL	AO	D	PIT	2Y				
								BT-C	CS	10		VR-1	NOTE 20
								FST	CS				
HV-19	G-7	2	B	1	GL	SO	C	PIT	2Y				
								BT-C	0	5		VR-1	
								FST	0			VR-2	
HV-20	E-7	2	B	1	GL	SO	C	PIT	2Y				
								BT-C	0	5		VR-1	
								FST	0			VR-2	
HV-21	D-7	2	B	1	GL	SO	C	PIT	2Y				
								BT-C	0	5		VR-1	
								FST	0			VR-2	
HV-22	B-7	2	B	1	GL	SO	C	PIT	2Y				
								BT-C	0	5		VR-1	
								FST	0			VR-2	
HV-35	G-7	2	B	1	GL	SO	C	PIT	2Y				
								BT-C	0	5		VR-1	
								FST	0			VR-2	
HV-36	E-7	2	B	1	GL	SO	C	PIT	2Y				
								BT-C	0	5		VR-1	
								FST	0			VR-2	
HV-37	C-7	2	B	1	GL	SO	C	PIT	2Y				
								BT-C	0	5		VR-1	
								FST	0			VR-2	
HV-38	B-7	2	B	1	GL	SO	C	PIT	2Y				
								BT-C	0	5		VR-1	
								FST	0			VR-2	
HV-65	G-6	2	B	1	GL	SO	C	PIT	2Y				
								BT-C	0	5		VR-1	
								FST	0			VR-2	
HV-66	E-6	2	B	1	GL	SO	C	PIT	2Y				
								BT-C	0	5		VR-1	
								FST	0			VR-2	
HV-67	C-6	2	B	1	GL	SO	C	PIT	2Y				
								BT-C	0	5		VR-1	
								FST	0			VR-2	
HV-68	B-6	2	B	1	GL	SO	C	PIT	2Y				
								BT-C	0			VR-1	
								FST	0			VR-2	
								PIT	2Y				

DATE 11 JUL 84 14:44:41 RID 16 08 MAY 84 JEFF

SYSTEM: BOR. REF. WTR. STOR. (BN)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-028N01

* VALVE * NO.	PSID COORD.	ISI CLASS	IST CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	NORM POS	TEST ROBT.	TEST FRE	MAX STRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
HV-3	C-3	2	B	12	GA	MO	0	BT-O	0	60			NOTE 36
*								BT-C	0	60			
HV-4	A-3	2	B	12	GA	MO	0	PIT	2Y				
*								BT-O	0	60			NOTE 36
*								BT-C	0	60			
HV-8806A	B-3	2	B	8	GA	MO	0	PIT	2Y				
*								BT-O	0	15			NOTE 36
*								BT-C	0	10			
HV-8806B	E-3	2	B	8	GA	MO	0	PIT	2Y				
*								BT-O	0	15			NOTE 36
*								BT-C	0	10			
HV-8812A	B-3	2	B	14	GA	MO	0	PIT	2Y				
*								BT-O	0	20			NOTE 36
*								BT-C	0	17			
HV-8812B	D-3	2	B	14	GA	MO	0	PIT	2Y				
*								BT-O	0	20			NOTE 36
*								BT-C	0	17			
HV-8813	B-7	2	B	2	GL	MO	0	PIT	2Y				
*								BT-C	CS	10			NOTE 21,36
HCV-8800A	E-5	2	B	3	GL	AO	C	PIT	2Y				
HCV-8806B	E-5	2	B	3	GL	AO	C	PAS	NA				
LCV-112D	A-5	2	B	8	GA	MO	C	PAS	NA				
*								BT-O	CS	15			NOTE 22,36
*								BT-C	CS	10			
LCV-112E	E-3	2	B	8	GA	MO	C	PIT	2Y				
*								BT-O	CS	15			NOTE 22,36
*								BT-C	CS	10			
*								PIT	2Y				

..... END REPORT

.DATE 11 JUL 84 13:39:46 RID 17 08 MAY 84 JEFF

*SYSTEM: FUEL POOL COOL. & CL. (EC)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-02EC01

* VALVE	PSID	ISI	IST	VALVE	VALVE	ACT	RODM	TEST	TEST	MAX STRK	MAX	RELIEF	REMARKS
* NO.	COORD.	CLASS	CAT	SIZE	TYPL	TYPE	POS	ROMT.	FRE	TIME	LEAKG	REQUEST	
HV-11	H-5	3	8	12	BTF	MO	0	BT-C	0	60			NOTE 36
HV-12	F-5	3	8	12	BTF	MO	0	PIT	2Y				
V-004	H-6	3	C	10	CK	SA	C	BT-C	0	60			NOTE 36
V-013	E-6	3	C	10	CK	SA	C	PIT	2Y				
V-996	E-6	3	C	.8	RV	SA	C	CVT-0	0				
V-997	G-6	3	C	.8	RV	SA	C	CVT-0	0				
V-998	E-5	3	C	.8	RV	SA	C	RVT	5Y				
V-999	G-5	3	C	.8	RV	SA	C	RVT	5Y				

..... END REPORT

DATE 11 JUL 84 13:40:31 RID 18 05 MAY 84 JEFF

*SYSTEM: FUEL POOL COOL. & CL. (FC)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-02EC02

* VALVE	PSID	ISI	IST	VALVE	VALVE	ACT	NORM	TEST	TEST	MAX STRK	MAX	RELIEF	REMARKS
* NO.	COORD.	CLASS	CAI	SIZE	TYPE	TYPE	POS	ROMT.	FRE	TIME	LEAKG	REQUEST	
V-083	C-5	2	A	6	GA	H	C	AT-1	RR			VR-5	
V-084	C-5	2	A	6	GA	H	C	AT-1	RR			VR-5	
V-087	D-7	2	A	6	GA	H	C	AT-1	RR			VR-5	
V-088	D-7	2	A	6	GA	H	C	AT-1	RR			VR-5	
V-090	B-5	2	A	3	GA	H	C	AT-1	RR			VR-5	
V-096	B-5	2	A	3	GA	H	C	AT-1	RR			VR-5	

..... END REPORT

DATE	TIME	VALVE	CLASS	IS	IS	VALVE	WGS	INSERVICE	TESTING	PROGRAM	DWG.	NO.	TEST	TIME	MAX	STIRK	LEAKG	RELIEF	REQUEST	REMARKS
11	JUL 84	13:48:52	RID	19	08	MAY 84	JEFF													
U-001	F-4	3	C	30	CK	SA	C													
U-004	C-4	3	C	30	CK	SA	C													
U-241	F-2	3	C	30	CK	SA	C													
U-262	C-2	3	C	30	CK	SA	C													
U-85	F-2	3	B	30	BT	NO	0													
U-86	C-2	3	B	30	BT	NO	0													
U-91	F-6	3	B	3	GA	NO	C													
U-92	C-6	3	B	3	GA	NO	C													
U-97	E-5	3	B	3	GA	NO	0													
U-98	B-5	3	B	3	GA	NO	0													
U-19	F-4	3	B	3	GA	NO	C													
U-20	B-4	3	B	3	GA	NO	C													

..... END REPORT

NOTE 36
NOTE 36
NOTE 36
NOTE 36
NOTE 36
NOTE 36
NOTE 36
NOTE 36

VR-9
VR-9

DATE 11 JUL 84 13:49:29 RID		28		88 MAY 84 JEFF		WGS INSERVICE TESTING PROGRAM		DWG. NO.:		M-22EF01		RELIEF REQUEST		REMARKS	
* SYSTEM: ESSENTIAL SERV. WTR. (EF)		P&ID		ISI		VALVE		VALVE		ACT		MAX STRK		MAX LEAK	
* VALVE		CLASS		CAT		SIZE		TYPE		TYPE		TIME		TIME	
* NO.		F-7		B		30		BTF		NO		BT-C		BT-C	
* HW-23	F-7	3	B	30	BTF	NO	0	BT-C	BT-C	0	30	BT-C	BT-C	0	30
* HW-24	E-7	3	B	30	BTF	NO	0	BT-C	BT-C	0	30	BT-C	BT-C	0	30
* HW-25	F-7	3	B	30	BTF	NO	0	BT-C	BT-C	0	30	BT-C	BT-C	0	30
* HW-26	E-7	3	B	30	BTF	NO	0	BT-C	BT-C	0	30	BT-C	BT-C	0	30
* HW-44	B-7	3	B	2	GL	AO	0	BT-C	BT-C	0	5	BT-C	BT-C	0	5
* V-076	B-6	3	C	2.5	CK	SA	C	BT-C	BT-C	0	5	BT-C	BT-C	0	5

..... END REPORT

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*SYSTEM: ESSENTIAL SERV. WTR. (EF)				WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-02EF02									
* VALVE	P&ID	ISI	IST	VALVE	VALVE	ACT	NORM	TEST	TEST	MAX STRK	MAX	RELIEF	
* N/O.	COORD.	CLASS	CAF	SIZE	TYPE	TYPE	POS	ROMT.	FRE	TIME	LEAKG	REQUEST	REMARKS
HV-59	G-3	3	B	24	BT-F	NO	O/C	BT-C	Q	60			NOTE 36
HV-60	C-3	3	B	24	BT-F	NO	O/C	BT-C	Q	60			NOTE 36
HV-87	E-3	3	B	1	GA	SO	O	BT-C	Q	5		VR-2	NOTE 23
HV-88	D-3	3	B	1	GA	SO	O	FST	Q				
								PIT	2Y			VR-2	NOTE 23

..... END REPORT

DATE	TIME	COMPONENT	COOLING	WTR.	RID	23	08 MAY 84	JEFF	TESTING PROGRAM	DWG. NO.	TEST	MAX STRK	MAX LEAKG	RELIEF REQUEST	REMARKS
X VALVE	NO.	CLASS	IST	IST	VALVE	VALVE	TYPE	ACT	NRKH	POS	TEST	TIME			
V-936	6-5	3	C	C	13	CK	SA	SA	0		CVT-0	0			
V-949	6-6	3	C	C	8	RV	SA	SA	C		RV	5Y			NOTE 36
V-952	6-6	3	C	C	8	RV	SA	SA	C		RV	5Y			NOTE 36
V-961	6-5	3	C	C	12	CK	0	0	0		CVT-0	0			
V-975	6-6	3	C	C	8	RV	SA	SA	C		RV	5Y			
V-977	6-6	3	C	C	8	RV	SA	SA	C		RV	5Y			
HV-93	6-5	3	B	B	13	BTF	AD	AD	0		PAS	NA			
HV-94	6-5	3	B	B	12	BTF	AD	AD	0		PAS	NA			
HV-191	6-4	3	B	B	13	BTF	AD	AD	C		BT-0	0			NOTE 36
HV-192	6-4	3	B	B	13	BTF	AD	AD	C		BT-0	0			NOTE 36
IV-29	6-6	3	B	B	24	BTF	AD	AD	0		PIT	2Y		VR-1	
IV-30	6-6	3	B	B	20	BTF	AD	AD	0		PIT	2Y		VR-1	
HV-72	6-2	3	B	B	2	GL	AD	AD	0		BT-0	0			NOTE 36
HV-73	6-2	3	B	B	2	GL	AD	AD	0		BT-0	0			NOTE 36
HV-74	6-1	3	B	B	2	GL	AD	AD	0		BT-0	0			NOTE 36
HV-75	6-1	3	B	B	2	GL	AD	AD	0		BT-0	0			NOTE 36

..... END REPORT

.DATE 25 JUL 84 10:08:03 RID 24 08 MAY 84 JEFF

*SYSTEM: COMPONENT COOLING WTR. (EG)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: N-02EG03

* VALVE NO.	P&ID COOR.	ISI CLASS	IST CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	HORN POS	TEST RONT.	TEST FRE	MAX STRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
V-124	D-4	3	C	4	CK	SA	0	PAS	NA				
V-129	D-5	3	C	12	CK	SA	0	PAS	NA				
V-204	H-4	2	A.C	12	CK	SA	0	AT-1	RR			VR-3	NOTE 25
								CVI-D	Q			VR-5	
HV-58	H-5	2	A	12	GA	NO	0	CVI-C	CS				
								AT-1	RR			VR-5	NOTE 36
								BT-C	Q	30			
HV-59	C-5	2	A	12	GA	NO	0	PIT	2Y				
								AT-1	RR			VR-5	NOTE 36
								BT-C	Q	30			
HV-60	A-5	2	A	12	GA	NO	0	PIT	2Y				
								AT-1	RR			VR-5	NOTE 36
								BT-C	Q	30			
HV-61	C-4	2	A	4	GA	NO	0	PIT	2Y				
								AT-1	RR			VR-5	NOTE 36
								BT-C	Q	30			
HV-62	A-4	2	A	4	GA	NO	0	PIT	2Y				
								AT-1	RR			VR-5	NOTE 36
								BT-C	Q	30			
HV-69A	F-8	3	B	14	BTF	AO	0/C	PIT	2Y				
								BT-C	Q	7		VR-1	
								FST	Q				
HV-69B	F-6	3	B	14	BTF	AO	0/C	PIT	2Y				
								BT-C	Q	7		VR-1	
								FST	Q				
HV-70A	F-8	3	B	14	BTF	AO	0/C	PIT	2Y				
								BT-C	Q	7		VR-1	
								FST	Q				
HV-70B	F-6	3	B	14	BTF	AO	0/C	PIT	2Y				
								BT-C	Q	7		VR-1	
								FST	Q				
HV-71	H-5	3	B	12	GA	NO	0	PIT	2Y				
								BT-C	Q	30			NOTE 36
HV-126	G-5	3	B	12	GA	NO	C	PIT	2Y				
								BT-C	Q	30			NOTE 36
								BT-C	Q	30			
HV-127	G-5	2	A	12	GA	NO	C	PIT	2Y				
								AT-1	RR			VR-5	NOTE 36
								BT-C	Q	30			
								BT-C	Q	30			
HV-130	B-5	2	A	12	GA	NO	C	PIT	2Y				
								AT-1	RR			VR-5	NOTE 36
								BT-C	Q	30			
								BT-C	Q	30			
HV-131	C-5	2	A	12	GA	NO	C	PIT	2Y				
								AT-1	RR			VR-5	NOTE 36
								BT-C	Q	30			
								BT-C	Q	30			
HV-132	B-4	2	A	4	GA	NO	C	PIT	2Y				
								AT-1	RR			VR-5	NOTE 36

..... END REPORT

DATE	TIME	VALVE	COOR.	CLASS	ISI	VALVE SIZE	VALVE TYPE	ACI	TYPE	POS	HOHN	TEST RCH	TEST FPE	NO.	MAX SINK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
04/11/84	10:04:00	2700A	F-7	2	C	3	RV	SA	C	C	PVT	SV	SV	0-02EJ01				
		2700B	C-7	2	C	3	RV	SA	C	C	RVT	SV	SV					
		2730A	G-4	2	C	10	CK	SA	C	C	CVI-0	U	U					
		2730B	C-4	2	C	10	CK	SA	C	C	CVI-0	U	U					
		2241A	F-2	1	C	6	CK	SA	C	C	AT-2	RR	RR					
											CVI-0	CS	CS				VR-6	NOTE 37
		2241B	D-2	1	C	6	CK	SA	C	C	CVI-C	RR	RR				VR-6	NOTE 37
											CVI-0	CS	CS					
		2950A	F-6	2	C	14	CK	SA	C	C	CVI-0	U	U					
		2950B	G-3	2	C	8	CK	SA	C	C	CVI-0	CS	CS					
		2950C	A-4	2	C	8	CK	SA	C	C	CVI-0	CS	CS					
		HV-14	H-3	2	B	1	GL	SO	C	C	PAS	HA	HA					NOTE 26
		HV-15	A-5	2	B	1	EL	SO	C	C	PAS	HA	HA					NOTE 26
		HV-2701A	F-8	1	A	12	GA	MO	C	C	AT-2	RR	RR					
											BT-0	CS	CS		120		VR-6	NOTES 8,36
											BT-C	CS	CS		120			
		HV-2701B	B-8	1	A	12	GA	MO	C	C	PIT	SV	SV					
											AT-2	RR	RR					
											BT-0	CS	CS		120		VR-6	NOTES 8,36
											BT-C	CS	CS		120			
		HV-2716A	E-3	2	B	10	GA	MO	C	C	PIT	2Y	2Y		12			NOTE 36
											BT-0	U	U		12			
		HV-2716B	D-3	2	B	10	GA	MO	C	C	PIT	2Y	2Y		12			NOTE 36
											BT-0	U	U		12			
		HV-2804A	G-4	2	B	8	GA	MO	C	C	PIT	2Y	2Y		10			NOTES 27,36
											BT-0	CS	CS		10			
		HV-2804B	A-4	2	B	8	GA	MO	C	C	PIT	2Y	2Y		10			NOTES 27,36
											BT-0	CS	CS		10			
		HV-2807A	G-3	2	B	10	GA	MO	C	C	PIT	2Y	2Y		12			NOTES 29,36
											BT-0	CS	CS		12			
		HV-2809B	E-3	2	B	10	GA	MO	C	C	PIT	2Y	2Y		12			NOTES 28,36
											BT-0	CS	CS		12			
		HV-2811A	E-7	2	B	14	GA	MO	C	C	PIT	2Y	2Y		17		VR-11	NOTE 36
											BT-0	RR	RR		17			
		HV-2811B	D-7	2	B	14	GA	MO	C	C	PIT	2Y	2Y		17		VR-11	NOTE 36
											BT-0	RR	RR		17			
		HV-2840	E-3	2	B	10	GA	MO	C	C	PIT	2Y	2Y		12			NOTES 28,36
											BT-0	CS	CS		12			
		FCV-610	H-6	2	B	2	GA	MO	C	C	PIT	2Y	2Y		10			NOTE 36

*SYSTEM: RESIDUAL HEAT REMOVAL (EJ)										WCGS INSERVICE TESTING PROGRAM DWG. NO.: H-02EJ01				
* VALVE	PRID	ISI	ISI	VALVE	VALVE	ACT	NOVA	TEST	TEST	MAX SRRK		MAX		RELIEF
* NO.	COORD.	CLASS	CAT	SIZE	TYPE	TYPE	POS	RONT.	FRE	TIME	LEAKG	REQUEST	REMARKS	
FCV-611	A-5	2	B	2	GA	AO	D	PIT	2Y					
FCV-618	F-5	2	B	8	BTF	AO	C	BT-C	0	10				NOTE 36
FCV-619	B-5	2	B	8	BTF	AO	C	PAS	NA					
HCV-606	E-4	2	B	10	BTF	AO	D	PAS	NA					
HCV-607	C-4	2	B	10	BTF	AO	D	PAS	NA					
HCV-8825	E-2	2	B	.75	GL	AO	C	BT-C	0	10		VR-1		
HCV-8896A	F-2	2	B	.75	GL	AO	C	FST	0					
								PIT	2Y					
								BT-C	0	10		VR-1		
HCV-8896B	C-2	2	B	.75	GL	AO	C	FST	0					
								PIT	2Y					
								BT-C	0	10		VR-1		
HV-21	E-7	2	B	1	GL	SO	C	FST	0					
								PIT	2Y					
								BT-C	0	5		VR-1		
HV-22	D-7	2	B	1	GL	SO	C	FST	0					
								PIT	2Y					
								BT-C	0	5		VR-1		
HV-23	F-7	2	A	1	GA	SO	C	FST	0					
								PIT	2Y					
								AT-1	RR					
								BT-C	0	5		VR-1		
HV-24	D-6	2	A	1	GA	SO	C	FST	0					
								PIT	2Y					
								AT-1	RR					
								BT-C	0	5		VR-1		
HV-25	F-6	2	A	1	GA	SO	C	FST	0					
								PIT	2Y					
								AT-1	RR					
								BT-C	0	5		VR-1		
HV-26	D-6	2	A	1	GL	SO	C	FST	0					
								PIT	2Y					
								AT-1	RR					
								BT-C	0	5		VR-1		
								FST	0			VR-2		
V-884	H-5	3	C	1.5	RV	SA	C	PIT	2Y			VR-5		
V-885	D-5	3	C	1.5	RV	SA	C	RVT	5Y					
V-156	G-5	3	C	.8	RV	SA	C	RVT	5Y					
V-157	D-6	3	C	.8	RV	SA	C	PVT	5Y					
								RVT	5Y					

..... END REPORT

DATE 11 JUL 84 14:38:43 RID 26 08 MAY 84 JEFF

*SYSTEM: HIGH PRESS. COOL. INJ. (EM) UCSS INSERVICE TESTING PROGRAM DWG. NO.: M-02EM01

* VALVE NO.	P&ID COOR.	ISI CLASS	IST CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	NORM POS	TEST ROBT.	TEST FRE	MAX STIRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
8922A	E-5	2	C	4	CK	SA	C	CVT-D	RR			VR-12	
8922B	D-5	2	C	4	CK	SA	C	CVT-D	RR			VR-12	
8926A	E-7	2	C	8	CK	SA	C	CVP-D	D			VR-14	
8926B	D-7	2	C	8	CK	SA	C	CVT-D	RR				
V-001	F-3	1	A.C	2	CK	SA	C	CVP-D	D			VR-14	
V-002	E-3	1	A.C	2	CK	SA	C	CVT-D	RR			VR-6	
V-003	D-3	1	A.C	2	CK	SA	C	CVT-D	RR			VR-12	
V-004	C-3	1	A.C	2	CK	SA	C	AT-2	RR			VR-13	
V-005	A-6	2	C	1.5	CK	SA	C	CVT-D	RR			VR-6	
V-006	F-6	2	A.C	1	CK	SA	C	CVT-D	RR			VR-12	
V-007	A-5	2	C	1.5	CK	SA	C	CVT-D	RR			VR-13	
HV-8802A	E-4	2	B	4	GA	NO	C	BT-D	D	10			
HV-8802B	D-4	2	B	4	GA	NO	C	BT-C	D	10			NOTE 36
V-100	D-6	3	C	.8	RV	SA	C	PIT	2Y				
V-107	F-6	3	C	.8	RV	SA	C	BT-D	D	10			NOTE 36
HV-8807A	E-7	2	B	6	GA	NO	C	PIT	2Y	15			NOTE 36
HV-8807B	F-7	2	B	6	GA	NO	C	BT-D	D	15			NOTE 36
HV-8814A	D-6	2	B	1.5	GL	NO	D	PIT	2Y	10			NOTE 36
HV-8814B	B-5	2	B	1.5	GL	NO	D	BT-C	D	10			NOTE 36
HV-8821A	E-4	2	B	4	GA	NO	D	PIT	2Y	10			NOTE 36
HV-8821B	D-4	2	B	4	GA	NO	D	BT-C	D	10			NOTE 36
HV-8823	C-4	2	B	.75	GL	AP	C	PIT	2Y	10			NOTE 36
HV-8824	D-3	2	B	.75	GL	AO	C	BT-C	D	10		VR-1	
HV-8835	B-4	2	B	4	GA	NO	D	FST	D			VR-1	
								PIT	2Y				
								BT-C	CS	10			NOTES 30,36
								BT-C	CS	10			

*SYSTEM: HIGH PRESS. COOL. INJ. (EM)	WCS INSERVICE	TESTING PROGRAM	DWG. NO.:	TEST FREQ	MAX STAK TIME	MAX LEAKS	RELIEF REQUEST	REMARKS
* VALVE	VALVE SIZE	VALVE TYPE	ACT TYPE	TEST ROMT	TEST FREQ	MAX STAK TIME	MAX LEAKS	RELIEF REQUEST
* NO.	CLASS	IST CAT	VALVE SIZE	VALVE TYPE	TEST ROMT	TEST FREQ	MAX STAK TIME	MAX LEAKS
* NO.	CLASS	IST CAT	VALVE SIZE	VALVE TYPE	TEST ROMT	TEST FREQ	MAX STAK TIME	MAX LEAKS
HV-8871	H-5	2	A	.75	GL	40	C	PII
					AT-1	RR	2Y	VR-1
					BT-C	0	10	VR-5
					FSI	0		
HV-8881	G-4	2	B	.75	GL	40	C	PII
					BT-C	0	10	VR-1
					FSI	0		
HV-8888	F-6	2	A	1	GL	40	C	PII
					AT-1	RR	5	VR-2
					BT-C	0		VR-5
					FSI	0		
HV-8889A	G-2	1	B	.75	GL	40	C	PII
					PAS	NA	2Y	
HV-8889B	G-3	1	B	.75	GL	40	C	PAS
					PAS	NA	NA	
HV-8889C	G-2	1	B	.75	GL	40	C	PAS
					PAS	NA	NA	
HV-8889D	G-2	1	B	.75	GL	40	C	PAS
					PAS	NA	NA	
HV-8923A	F-7	2	B	6	GA	40	0	PAS
					PAS	NA	NA	
HV-8923B	D-7	2	B	6	GA	40	0	PAS
					PAS	NA	NA	
HV-8924	G-8	2	B	6	GA	40	0	PAS
					PAS	NA	NA	
HV-8964	H-5	2	A	.75	GL	40	C	PII
					AT-1	RR	10	VR-1
					BT-C	0		VR-5
					FSI	0		
					PII	2Y		

..... END REPORT

.DATE 25 JUL 84 12:16:19 RID 27 08 MAY 84 JEFF

*SYSTEM: HIGH PRESS. COOL. INJ. (EM)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-02EN02

* VALVE NO.	P&ID COOR.	ISI CLASS	IST CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	NORM POS	TEST ROMT.	TEST FRE	MAX SIKK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
8815	D-3	1	A,C	3	CK	SA	C	AT-2	RR			VR-6	
								CVT-D	RR			VR-13	
								CVT-C	RR			VR-4	
V-014	E-6	2	C	1	CK	SA	D	NA	NA				NOTE 32
V-017	D-6	2	C	1	CK	SA	D	NA	NA				NOTE 32
V-240	C-7	2	C	1	CK	SA	D	CVT-D	RR			VR-22	
V-241	B-7	2	C	1	CK	SA	D	CVT-D	RR			VR-22	
HV-8801A	D-4	2	B	4	GA	MO	C	BT-D	CS	10			NOTES 31,36
								BT-C	CS	10			
								PIT	2Y				
HV-8801B	D-4	2	B	4	GA	MO	C	BT-D	CS	10			NOTES 31,36
								BT-C	CS	10			
								PIT	2Y				
8802	E-4	2	C	.8	RV	SA	C	RVT	SY				
HV-8803A	C-7	2	B	4	GA	MO	C	BT-D	CS	10			NOTES 31,36
								BT-C	CS	10			
								PIT	2Y				
HV-8803B	A-7	2	B	4	GA	MO	C	BT-D	CS	10			NOTES 31,36
								BT-C	CS	10			
								PIT	2Y				
HV-8837A	C-7	2	B	1	GL	SO	C	BT-D	CS	10		VR-1	NOTE 31
								BT-C	CS	10			
								FSI	CS				
								PIT	2Y				
HV-8837B	B-7	2	B	1	GL	SO	C	BT-D	CS	10		VR-1	NOTE 31
								BT-C	CS	10			
								FSI	CS				
								PIT	2Y				
HV-8843	C-4	2	B	.75	GL	AO	C	BT-C	Q	10		VR-1	
								FSI	Q				
								PIT	2Y				
HV-8870A	E-5	2	B	1	GL	AO	C	PAS	NA				
HV-8870B	E-5	2	B	1	GL	AO	C	PAS	NA				
HV-8882	C-3	2	B	.75	GL	AO	C	PAS	NA				
HV-8883	D-6	2	B	.75	GL	AO	C	PAS	NA				

..... END REPORT

DATE 12 JUL 84 09:57:30 RID 28 08 MAY 84 JEFF

*SYSTEM: CONTAINMENT SPRAY (EN)

WCGS (INSERVICE TESTING PROGRAM DWG. NO.: M-02EN01

* VALVE NO.	P&ID COOR.	ISI CLASS	ISI CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	NORM POS	TEST ROHT.	TEST FRE	MAX STIRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
V-002	G-7	2	C	12	CK	SA	C	CVT-0	RR				
V-003	E-7	2	C	12	CK	SA	C	CVP-0	Q			VR-15	
V-004	G-5	2	C	10	CK	SA	C	CVP-0	Q			VR-17	
V-008	B-7	2	C	12	CK	SA	C	CVT-0	RR			VR-17	
V-009	B-7	2	C	12	CK	SA	C	CVP-0	Q			VR-15	
V-010	D-5	2	C	10	CK	SA	C	CVP-0	Q			VR-17	
V-013	G-4	2	C	10	CK	SA	C	CVT-0	RR			VR-17	
V-017	B-4	2	C	10	CK	SA	C	CVT-0	RR			VR-15	
HV-12	B-4	2	B	10	GA	NO	C	BT-0	Q	15		VR-15	
								BT-C	Q	15			NOTE 36
HV-15	E-6	2	B	3	GA	NO	C	PIT	2Y				
HV-16	D-6	2	B	3	GA	NO	C	BT-0	CS	5		VR-2	NOTES 33,36
								PIT	2Y				
V-057	F-5	2	C	.75	RV	SA	C	BT-0	CS	5		VR-2	NOTES 33,36
V-058	F-5	2	C	1	RV	SA	C	PIT	2Y				
V-099	F-6	2	C	3	CK	SA	C	RVT	5Y				
V-101	C-6	2	C	3	CK	SA	C	RVI	5Y				
V-106	F-5	2	C	1	RV	SA	C	CVT-0	Q				
HV-1	G-7	2	B	12	GA	NO	C	CVT-0	Q				
								RVT	5Y				
								BT-0	RR	30		VR-16	NOTE 36
								BT-C	RR	30			
HV-6	D-4	2	B	10	GA	NO	C	PIT	2Y				
								BT-0	Q	15			NOTE 36
								BT-C	Q	15			
HV-7	B-7	2	B	12	GA	NO	C	PIT	2Y				
								BT-0	RR	30		VR-16	NOTE 36
								BT-C	RR	30			
								PIT	2Y				

..... END REPORT

.DATE 25 JUL 84 10:10:28 RID 29 08 MAY 84 JEFF

*SYSTEM: ACC. SAFETY INJECTION (EP)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-02EP01

* VALVE NO.	P#ID COOR.	ISI CLASS	ISI CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	HORN POS	TEST ROPT.	TEST FRE	MAX STRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
8818A	G-3	1	A,C	6	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
8818B	F-3	1	A,C	6	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
8818C	D-3	1	A,C	6	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
8818D	C-3	1	A,C	6	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
8855A	H-7	2	C	1	RV	SA	C	RV	SY				
8855B	F-7	2	C	1	RV	SA	C	RV	SY				
8855C	D-7	2	C	1	RV	SA	C	RV	SY				
8855D	C-7	2	C	1	RV	SA	C	RV	SY				
8956A	G-4	1	A,C	10	CK	SA	C	AT-2	RR			VR-6	
								CVT-0	RR				
8956B	E-4	1	A,C	10	CK	SA	C	AT-2	RR			VR-6	
								CVT-0	RR				
8956C	C-4	1	A,C	10	CK	SA	C	AT-2	RR			VR-6	
								CVT-0	RR				
8956D	B-4	1	A,C	10	CK	SA	C	AT-2	RR			VR-6	
								CVT-0	RR				
V-010	G-3	1	A,C	2	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
V-020	F-3	1	A,C	2	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
V-030	D-3	1	A,C	2	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
V-040	C-3	1	A,C	2	CK	SA	C	AT-2	RR			VR-4	
								CVT-0	RR			VR-6	
V-046	A-5	2	A,C	1	CK	SA	C	AT-1	RR			VR-3	
								CVT-0	RR			VR-5	
HV-8808A	G-5	2	B	10	GA	NO	0	BT-0	CS	12			NOTES 29.36
								BT-C	CS	12			
HV-8808B	E-5	2	B	10	GA	NO	0	PIT	2Y				
								BT-0	CS	12			NOTES 29.36
								BT-C	CS	12			
HV-8808C	C-5	2	B	10	GA	NO	0	PIT	2Y				
								BT-0	CS	12			NOTES 29.36
								BT-C	CS	12			

*SYSTEM: ACC. SAFETY INJECTION (EP) WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-02EP01											
* VALVE	PSID	ISI	IST	VALVE	VALVE	ACT	HORN	TEST	TEST	MAX STRK	MAX
* NO.	COORD.	CLASS	CAT	SIZE	TYPE	TYPE	POS	ROMT.	FRE	TIME	LEAKG
=====											
* HV-8808D	B-5	2	B	10	GA	MO	D	PIT	2Y		
*								BT-D	CS	12	
*								BT-C	CS	12	
								PIT	2Y		
HV-8875A	H-6	2	B	1	GL	AO	C	PAS	NA		
HV-8875B	F-6	2	B	1	GL	AO	C	PAS	NA		
HV-8875C	D-6	2	B	1	GL	AO	C	PAS	NA		
HV-8875D	E-6	2	B	1	GL	AO	C	PAS	NA		
HV-8877A	F-4	2	B	.75	GL	AO	C	PAS	NA		
HV-8877B	L-4	2	B	.75	GL	AO	C	PAS	NA		
HV-8877C	C-4	2	B	.75	GL	AO	C	PAS	NA		
HV-8877D	A-4	2	B	.75	GL	AO	C	PAS	NA		
HV-8878A	G-5	2	B	1	GL	AO	C	PAS	NA		
HV-8878B	E-5	2	B	1	GL	AO	C	PAS	NA		
HV-8878C	D-5	2	B	1	GL	AO	C	PAS	NA		
HV-8878D	C-2	2	B	.75	GL	AO	C	PAS	NA		
HV-8950A	H-7	2	B	1	GL	SO	C	PAS	NA		
*								BT-D	RR	10	
*								BT-C	RR	10	
*								FST	RR		VR-1
								PIT	2Y		VR-18
HV-8950B	F-8	2	B	1	GL	SO	C	BT-D	RR	10	
*								BT-C	RR	10	
*								FST	RR		VR-1
								PIT	2Y		VR-18
HV-8950C	F-7	2	B	1	GL	SO	C	BT-D	RR	10	
*								BT-C	RR	10	
*								FST	RR		VR-1
								PIT	2Y		VR-18
HV-8950D	D-8	2	B	1	GL	SO	C	BT-D	RR	10	
*								BT-C	RR	10	
*								FST	RR		VR-1
								PIT	2Y		VR-18
HV-8950E	D-7	2	B	1	GL	SO	C	BT-D	RR	10	
*								BT-C	RR	10	
*								FST	RR		VR-1
								PIT	2Y		VR-18
HV-8950F	C-8	2	B	1	GL	SO	C	BT-D	RR	10	
*								BT-C	RR	10	
*								FST	RR		VR-1
								PIT	2Y		VR-18
HV-8950G	A-4	2	A	2	GL	AO	C	BT-D	RR		
*								BT-C	RR	10	
*								FST	RR		VR-5
								PIT	2Y		

..... END REPORT

.DATE 16 JUL 84 06:33:18 RID 30 08 MAY 84 JEFF

*SYSTEM: AUX TURB-AUX FD PMP TURB (FC) WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-02FC02

* VALVE NO.	PSID COOR.	ISI CLASS	IST CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	NORM POS	TEST ROHT.	TEST FRE	MAX STRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
V-001	G-6	2	C	4	CK	SA	C	CVT-0	0				
V-002	G-6	2	C	4	CK	SA	C	CVT-0	0				
V-003	G-6	3	C	4	CK	SA	C	PAS	NA				
V-024	G-6	2	C	4	CK	SA	C	CVT-0	0				
V-025	G-6	2	C	4	CK	SA	C	CVT-0	0				
FV-310	D-7	3	B	1	BL	AC	0	BT-C	0	5		VR-1	
								FST	0			VR-2	
HV-312	F-5	3	B	4	GA	ND	C	PIT	2Y	10			NOTE 36
								BT-0	0				
LV-10	D-6	3	B	1	BL	AD	C	PIT	2Y				
V-999	E-3	NC	C	.5	RV	SA	C	PAS	NA				
								RVT	5Y				

..... END REPORT

DATE 16 JUL 84 06:30:04 RID 31 08 MAY 84 JEFF

*SYSTEM: CONTAINMENT HY. CONT. (GS)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-026S01

* VALVE * NO.	P2ID COORD.	ISI CLASS	ISI CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	NORM POS	TEST ROHT.	TEST FRE	MAX STRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
HV-3	E-6	2	A	1	GA	SO	C	AT-1 BT-0 BT-C FST PIT	RR 0 0 0 2Y			VR-1 VR-2 VR-5	
HV-4	E-6	2	A	1	GA	SO	C	AT-1 BT-0 BT-C FST PIT	RR 0 0 0 2Y			VR-1 VR-2 VR-5	
HV-5	D-5	2	A	1	GA	SO	C	AT-1 BT-0 BT-C FST PIT	RR 0 0 0 2Y			VR-1 VR-2 VR-5	
HV-8	B-6	2	A	1	GA	SO	C	AT-1 BT-0 BT-C FST PIT	RR 0 0 0 2Y			VR-1 VR-2 VR-5	
HV-9	B-6	2	A	1	GA	SO	C	AT-1 BT-0 BT-C FST PIT	RR 0 0 0 2Y			VR-1 VR-2 VR-5	
HV-12	E-4	2	A	1	GA	SO	C	AT-1 BT-0 BT-C FST PIT	RR 0 0 0 2Y			VR-1 VR-2 VR-5	
HV-13	E-5	2	A	1	GA	SO	C	AT-1 BT-0 BT-C FST PIT	RR 0 0 0 2Y			VR-1 VR-2 VR-5	
HV-14	D-5	2	A	1	GA	SO	C	AT-1 BT-0 BT-C FST PIT	RR 0 0 0 2Y			VR-1 VR-2 VR-5	
HV-17	B-4	2	A	1	GA	SO	C	AT-1 BT-0 BT-C FST PIT	RR 0 0 0 2Y			VR-1 VR-2 VR-5	
HV-18	B-5	2	A	1	GA	SO	C	AT-1 BT-0 BT-C FST PIT	RR 0 0 0 2Y			VR-1 VR-2 VR-5	

DATE 16 JUL 84 06:30:47 RID 32 08 MAY 84 JEFF

*SYSTEM: CONTAINMENT PURGE (GT)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-026T01

* VALVE	P&ID	ISI	ISI	VALVE	VALVE	ACT	NORM	TEST	TEST	MAX STRK	MAX	RELIEF	REMARKS
* NO.	COORD.	CLASS	CAT	SIZE	TYPE	TYPE	POS	RODT.	PRE	TIME	LEAKG	REQUEST	
HZ-4	D-4	2	A	18	BTF	AO	0	AT-1	RR			VR-1	
*								BT-C	0	3		VR-2	
*								FST	0			VR-5	
HZ-5	A-5	2	A	18	BTF	AO	0	AT-1	RR			VR-1	
*								BT-C	0	3		VR-2	
*								FST	0			VR-5	
HZ-6	C-4	2	A	36	BTF	AO	C	AT-1	RR			VR-5	NOTE 34
*								BT-C	CS	10			
*								FST	CS				
HZ-7	C-5	2	A	36	BTF	AO	C	AT-1	RR			VR-5	NOTE 34
*								BT-C	CS	10			
*								FST	CS				
HZ-8	C-6	2	A	36	BTF	AO	C	AT-1	RR			VR-5	NOTE 34
*								BT-C	CS	10			
*								FST	CS				
HZ-9	C-7	2	A	36	BTF	AO	C	AT-1	RR			VR-5	NOTE 34
*								BT-C	CS	10			
*								FST	CS				
HZ-11	A-6	2	A	18	BTF	AO	0	AT-1	RR			VR-1	
*								BT-C	0	3		VR-2	
*								FST	0			VR-5	
HZ-12	A-7	2	A	13	BTF	AO	0	AT-1	RR			VR-1	
*								BT-C	0	3		VR-2	
*								FST	0			VR-5	
*								PIT	2Y				

..... END REPORT

DATE 16 JUL 84 06:35:13 RID

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08 MAY 84 JEFF

*SYSTEM: LIQUID RADWASTE (HB)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: H-02HB01

* VALVE	F&ID	ISI	IST	VALVE	VALVE	ACT	FORM	TEST	TEST	MAX STRK	MAX	RELIEF	REMARKS
* NO.	COORD.	CLASS	CAT	SIZE	TYPE	TYPE	POS	ROUT.	FRE	TIME	LEAKG	REQUEST	
U-036	C-3	3	C	.75	RV	SA	C	RVT	5Y				
HV-7126	H-6	2	A	.75	DIA	A0	0	AT-1	RR			VR-1	
*								BT-C	Q	10		VR-5	
*								FST	Q				
HV-7136	F-3	2	A	3	DIA	A0	0	PIT	2Y				
*								AT-1	RR			VR-1	
*								BT-C	Q	10		VR-5	
*								FST	Q				
HV-7150	H-5	2	A	.75	DIA	A0	0	PIT	2Y				
*								AT-1	RR			VR-1	
*								BT-C	Q	10		VR-5	
*								FST	Q				
HV-7176	F-3	2	A	3	DIA	A0	0	PIT	2Y				
*								AT-1	RR			VR-1	
*								BT-C	Q	10		VR-5	
*								FST	Q				
*								PIT	2Y				

..... END REPORT

.DATE 16 JUL 84 06:35:48 RID 34 03 MAY 84 JEFF

*SYSTEM: DECONTAMINATION (HD)

WCGS INSERVICE TESTING PROGRAM DNG. NO.: H-02HD01

* VALVE	P&ID	ISI	IST	VALVE	VALVE	ACT	HORN	TEST	TEST	MAX STRK	MAX	RELIEF	
* NO.	COORD.	CLASS	CAI	SIZE	TYPE	TYPE	POS	ROMI.	FRL	TIME	LEAKG	REQUEST	REMARKS
V-016	B-7	2	A	2	GL	H	C	AT-1	RR			VR-S	
V-017	B-7	2	A	2	GL	H	C	AT-1	RR			VR-S	

..... END REPORT

DATE 16 JUL 84 06:36:29 RID 35 08 MAY 84 JEFF

*SYSTEM: EMERGENCY FUEL OIL (JE)

WCGS INSERVICE TESTING PROGRAM DNG. NO.: M-02JE01

* VALVE	PSID	ISI	ISI	VALVE	VALVE	ACT	HORN	TEST	TEST	MAX STRK	MAX	RELIEF	
* NO.	COORD.	CLASS	CAT	SIZE	TYPE	TYPE	PCS	RONT.	FRE	TIME	LEAKG	REQUEST	REMARKS
V-085	H-4	3	C	2	CK	SA	C	CVT-0	0				
V-086	D-4	3	C	2	CK	SA	C	CVT-0	0				

..... END REPORT

DATE 16 JUL 84 06:36:49 RID 36 08 MAY 84 JEFF

SYSTEM: COMPRESSED AIR (KA)

WGS INSERVICE TESTING PROGRAM DMG. NO.: M-02KA01

* VALVE NO.	PAID COOR.	IST CLASS	IST CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	NOPR POS	TEST ROHT.	TEST FRE	MAX STRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
9-204	C-2	2	A.C	1.5	CK	SA	0	AT-1	RR			VR-3	
FV-29	B-2	2	A	2	GL	AO	0	CVI-C	RR			VR-5	
*								AT-1	RR			VR-1	
*								BT-C	RR	5		VR-2	
*								FST	RR			VR-5	
H9-30	C-1	2	B	1.5	GA	MO	C	PII	2Y			VR-19	
*								BT-D	RR	12		VR-19	NOTE 36
*								PII	2Y				

..... END REPORT

DATE 16 JUL 84 06:37:20 RID 37 08 MAY 84 JEFF

*SYSTEM: COMPRESSED AIR (KA)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-02KAB2

* VALVE	PAID	ISI	IST	VALVE	VALVE	ACT	ROM	TEST	TEST	MAX STRK	MAX	RELIEF	
* NO.	COORD.	CLASS	CAT	SIZE	TYPE	TYPE	PUS	ROMT2	FRE	TJHE	LEAKG	REQUEST	REMARKS
V-039	D-6	2	A.C	3	CK	SA	C	AT-1	RR			VR-3	
V-118	D-6	2	A	4	GL	N	C	CVI-C	RR			VR-5	
								AT-1	RR			VR-5	

..... END REPORT

DATE 16 JUL 84 06:37:42 RID

38

08 MAY 84 JEFF

*SYSTEM: COMPRESSED AIR (KA)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: N-02KA05

* VALVE	P&ID	ISI	IST	VALVE	VALVE	ACT	NORM	TEST	TEST	MAX STRK	MAX	RELIEF	
* NO.	COORD.	CLASS	CAT	SIZE	TYPE	TYPE	POS	PORT.	FRE	TIME	LEAKG	REQUEST	REMARKS
* V-648	G-6	3	A,C	.75	CK	SA	C	AT-3	RR			VR-20	
* V-649	F-5	3	A,C	.75	CK	SA	C	CVT-C	RR			VR-20	
* V-650	L-6	3	A,C	.75	CK	SA	C	AT-3	RR			VR-20	
* V-651	B-5	3	A,C	.75	CK	SA	C	CVT-C	RR			VR-20	
* V-703	H-7	3	C	.8	RV	SA	C	AT-3	RR			VR-20	
V-704	F-6	3	C	.8	RV	SA	C	CVT-C	RR				
V-705	D-7	3	C	.8	RV	SA	C	RVT	SY				
V-706	B-6	3	C	.8	RV	SA	C	RVT	SY				

..... END REPORT

DATE 16 JUL 84 06:44:54 R1D 50 16 MAY 84 JEFF
 *SYSTEM: STANDBY DIESEL GEN. (KJ) MCGS INSERVICE TESTING PROGRAM DWG. NO.: #02KJ02
 * VALVE P&ID ISI CAT VALVE VALVE ACT VALVE VALVE ACT VALVE VALVE ACT VALVE VALVE ACT
 * NO. COOR. CLASS ISI CAT VALVE VALVE ACT VALVE VALVE ACT VALVE VALVE ACT VALVE VALVE ACT
 * Q-712A 0-5 3 A.C .75 CK SA C AT-5 PR
 * Q-711A B-2 3 A.C .75 CK SA C CVT-C RR
 * P0-1A F-3 3 B .4 BL SD C BT-0 CS
 * PV-1B F-3 3 B .4 BL SD C BT-0 CS
 * END REPORT

RELIEF REQUEST MAX LEAKG MAX STRK MAX TIME
 VR-21 VR-21 5 5
 VR-1 VR-2 NOTE 35
 VR-1 VR-2 NOTE 35

.DATE 16 JUL 84 06:43:36 RID 42 08 MAY 84 JEFF

*SYSTEM: STANDBY DIESEL GEN. (KJ)

WCGS INSERVICE TESTING PROGRAM DMG. NO.: H-02KJ03

* VALVE	P&ID	ISI	ISI	VALVE	VALVE	ACT	HORN	TEST	TEST	MAX STRK	MAX	RELIEF	
* NO.	COOR.	CLASS	CAT	SIZE	TYPE	TYPE	POS	ROHT.	FRE	TIME	LEAKG	REQUEST	REMARKS
HV-2	A-8	5	B	1	GA	NO	0	BT-C	0	12			NOTE 36
*								PIT	2Y				

..... END REPORT

DATE 16 JUL 84 06:44:03 RID 43 08 MAY 84 JEFF

*SYSTEM: STANDBY DIESEL GEN. (KJ)

WCS INSERVICE TESTING PROGRAM DWG. NO.: M-02K.004

* VALVE	PRID	IST	IST	VALVE	VALVE	ACT	HORN	TEST	TEST	MAX STRK	MAX	RELIEF	REMARKS
* NO.	COORD.	CLASS	CAT	SIZE	TYPE	TYPE	POS	ROMT.	FRC	TIME	LEAKG	REQUEST	
HV-101	A-6	3	B	1	GA	HO	0	BT-C	0	12			
*								FIT	2Y				NOTE 38

..... END REPORT

DATE	JBL	24	06:45:15	RID	51	16 MAY 84	JEFF	WGS	INSERVICE	TESTING PROGRAM	DWG.	NO.	W-02KJ05
* VALVE	PAID	IST	IST	IST	IST	VALVE	VALUE	ACT	NORM	TEST	TEST	TEST	MAX STRK
* NO.	COORD.	CLASS	IST	IST	IST	SIZE	TYPE	TYPE	POS	ROUT	FRE	TIME	MAX LEAKG
* PV 101A	F-3	3	B	B	B	.4	GL	SO	C	BT-0	CS	5	
* PV-101B	F-3	3	B	B	B	.4	BL	SO	C	FST	CS		
* U-711B	B-2	3	A.C	A.C	A.C	.75	CK	SA	C	FST	CS	5	
* U-712B	D-5	3	A.C	A.C	A.C	.75	CK	SA	C	FST	CS		
										AT-3	RR		
										CVT-C	RR		
										AT-3	RR		
										CVT-C	RR		

..... END REPORT

RELIEF REQUEST	REMARKS
VR-1	NOTE 35
VR-2	
VR-1	NOTE 35
VR-2	
VR-21	
VR-21	

DATE	TIME	RID	52	16 MAY 84	JEFF	WGS	INTEGRITY	TESTING	PROGRAM	OMG	MO.	TEST	TEST	MAX	STIRK	RELIEF	REMARKS
SYSTEM	FLOOR	EQUIP.	DEATHS	(LF)	VALVE	VALVE	ACT	POS	RTHT	FRE	TIME	LEAKS	REQUEST	NOTE	36	NOTE	36
HV-105	C-3	3	B	6	6A	MO	0	0	RT-C	Q	30						
HV-105	C-4	3	B	6	6A	MO	0	0	RT-C	Q	30						

..... END REPORT

DATE 16 JUL 84 06:46:54 RID 45 08 MAY 84 JEFF

*SYSTEM: FLOOR AND EQUIP. DRAINS (LF) WCGS INSERVICE TESTING PROGRAM DNG. NO.: M-021F09

* VALVE NO.	PRID COOR.	ISI CLASS	ISI CAT	VALVE SIZE	VALVE TYPE	ACT TYPE	NORM POS	TEST RONT.	TEST FRE	MAX STRK TIME	MAX LEAKG	RELIEF REQUEST	REMARKS
FV-95	F-2	2	A	6	GA	NO	0	AT-1	RR			VR-5	NOTE 36
								BT-C	0	30			
FV-96	F-2	2	A	6	GA	NO	0	PIT	2Y				
								AT-1	RR			VR-1	
								BT-C	0	4		VR-2	
								FST	0			VR-5	
								PIT	2Y				

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.... END REPORT

NOTES

1. Operating these valves during normal operation would cause a decrease in pressure in the respective main steam header. This could introduce a severe transient in the main steam header which is unacceptable from an operational viewpoint. Valve testing will be performed during cold shutdown.
2. Closure of the main steam isolation valves during unit operation could result in reactor trip and safety injection actuation which would introduce a severe transient in the main steam lines which is unacceptable from an operational viewpoint. Testing by isolating each main steam header is also possible but would cause a power reduction which is also unacceptable from an operational viewpoint. These valves will be partially stroked every three months and full-stroke tested along with a fail safe test during cold shutdown.
3. Exercising these valves during normal operation is considered impractical. Stroking these valves would isolate feedwater to the steam generators which could result in a severe transient, possibly causing a unit trip. Valve testing will be performed during cold shutdown.
4. Exercising these valves during normal operation is considered impractical. Stroking these valves could result in a loss of steam generator level control on the corresponding steam generator, possibly causing a unit trip. Valve testing will be performed during cold shutdown.
5. During normal operation exercising these valves would be impractical. Closing these valves during operation would isolate feedwater to the steam generators which could result in a severe transient, possibly causing a unit trip. Valves FV-39, 40, 41 and 42 will be partial stroke tested during normal operation while the remaining testing on all the valves pertaining to this NOTE will be performed during cold shutdown.
6. Exercising these valves during normal operation would introduce cold auxiliary feedwater into the steam generators and therefore would cause an unnecessary thermal shock to the auxiliary feed nozzles. Valve testing will be done during cold shutdown.
7. Valves AL HV-5, AL HV-7, AL HV-9, and AL HV-11 are flow control valves. Therefore these valves are neither active or passive and thus testing requirements are NA.
8. These valves have an interlock which prevents their opening when reactor coolant system pressure is above 360 PSIG. Valve testing will be performed during cold shutdown.

9. This valve is passive since it is in series with a normally closed non-safety-related, air operated valve (BG HV-8145) and does not have to change positions to perform a safety-related function.
10. The power-operated relief valves have a history of failures and should not be challenged at power. Valve testing will be performed during cold shutdown.
11. Failure of these valves in the closed position during normal operation would inhibit flow to the reactor coolant pump thermal barriers. This is not desirable during pump operation. Valve testing will be performed during cold shutdown.
12. Failure of these valves in the closed position during normal operation would inhibit flow to the reactor coolant pump seals which could damage the reactor coolant pump seals. Valve testing will be performed during cold shutdown.
13. Failure of these valves in the open position during normal operation would put the reactor in a potential small break LOCA situation. Valve testing will be performed during cold shutdown.
14. Failure of one of these valves in the closed position during normal operation would result in a loss of seal water flow to the reactor coolant pumps and could cause pump seal damage. Valve testing will be performed during cold shutdown.
15. Failure of one of these valves in the closed position during normal operation would result in loss of pressurizer level control and may cause plant shutdown. Valve testing will be performed during cold shutdown.
16. Failure of these valves in the closed position during normal operation would inhibit letdown flow to the regenerative heat exchanger which would effect normal letdown and charging operation. Valve testing will be performed during cold shutdown.
17. Closure of one of these valves during normal operation would isolate charging flow to the reactor coolant system which could result in loss of pressurizer level control and cause plant shutdown. Valve testing will be performed during cold shutdown.
18. The normal charging pumps' suction would be isolated upon closure of one of these valves during normal operation. Alternate suction flow paths (e.g. aligned with the refueling water storage tank) would cause a sudden increase in reactor coolant system boron inventory, thereby a plant transient. Also, seal water injection to the reactor coolant pumps would be inhibited which could result in damage to the seals. Valve testing will be performed during cold shutdown.

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19. Testing this valve during normal operation would introduce boric acid to the primary side causing unwanted negative reactivity addition. Valve testing will be performed during cold shutdown.
20. Failure of one of these valves in the closed position, while testing during normal operation, would inhibit normal blowdown and possibly cause plant shutdown due to exceeding chemistry limits. Valve testing will be performed during cold shutdown.
21. Failure of this valve in the closed position during normal operation could cause a failure of both SI pumps by isolating the miniflow recirculation path for both pumps. Valve testing will be performed during cold shutdown.
22. Failure of these valves in the open position during normal operation could result in introduction of borated water into the reactor coolant system, which could possibly cause plant shutdown. Valve testing will be performed during cold shutdown.
23. These are solenoid valves of a hermetically enclosed, seal welded design with internally mounted reed switches for position indication. Visual verification of valve position is not possible unless the valve is removed from service and disassembled. Valve position will be verified by observation of flow.
24. Testing these valves during normal operation would result in interruption of component cooling water flow for equipment necessary for normal operation. Valve testing will be performed during cold shutdown.
25. Testing the valve during normal operation would interrupt component cooling water flow to the reactor coolant pumps and possibly damage the pumps. Valve testing will be performed during cold shutdown.
26. Testing these valves would require stroking valves EJ HV-8804 A and B. Valves HV-8804 A and B have control interlocks with other ECCS valves and cannot be exercised during normal operation. Valve testing will be performed during cold shutdown.
27. These valves have control interlocks with other ECCS valves and cannot be exercised during normal operation. Valve testing will be performed during cold shutdown.
28. These valves have their power removed during normal operation so that the ECCS flowpath can be maintained operable per Technical Specific Valve testing will be performed during cold shutdown.

29. These valves are locked open with power removed during normal operation with RCS pressure above 1000 PSIG as required by Technical Specifications. Valve testing will be performed during cold shutdown.
30. Failure of this valve in the closed position during normal operation would inhibit a portion of the emergency core cooling system. Valve testing will be performed during cold shutdown.
31. Exercising these valves during normal operation would inject unwanted boron into the reactor coolant system. Valve testing will be performed during cold shutdown.
32. Valves EM V-014 and V-017 have no safety function.
33. Testing these valves during normal operation would require isolating the spray additive tanks which would violate Technical Specifications. Valve testing will be performed during cold shutdown.
34. These valves are locked closed and sealed during normal operation per Technical Specification requirements and cannot be exercised. Valve testing will be performed during cold shutdown.
35. The diesel generators are tested per Technical Specifications during normal operation. These solenoid valves will be tested independently during cold shutdown.
36. All motor operated valves fail-as-is and therefore do not require a fail safe test per IWV-3415.
37. Exercising these valves during normal plant operation is not possible because valves cannot be opened against reactor coolant pressure. Valve testing will be performed during cold shutdown.
38. Exercising this valve during normal operation would inhibit flow to the reactor coolant pump seals which could damage the reactor coolant pump seals. Valve testing will be performed during cold shutdown.