

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 |

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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.

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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

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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.

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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.

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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

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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.

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.

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.

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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.

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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.

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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.

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 striking 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

| 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 (W)G. NO.: M-02A801

| * VALVE NO. | PSID 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-D | 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-D | 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-D | 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-D | CS | 20 | | | |
| | | | | | | | | FST | CS | | | | |
| | | | | | | | | PIT | 2Y | | | | |

..... END REPORT

| DATE | TIME | VALVE | COORD. | CLASS | ISI | ISI | VALVE | MCBS | TESTING | PROGRAM | DWG. | NO. | TEST | MAX | RELIEF | REMARKS |
|------|----------|-------|--------|-------|-----|------|-------|---------|---------|---------|------|----------|------|-------|---------|---------|
| | | NO. | | | CAT | SIZE | TYPE | INSERVE | PROGRAM | | | | FRE | LEAKG | REQUEST | |
| | | | | | | | | ACT | TEST | | | | TIME | | | |
| 03 | 13:11:32 | D-4 | D-4 | 2 | B | 4 | BL | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 10 | VR-1 | |
| 03 | 13:11:32 | C-4 | C-4 | 2 | B | 4 | BL | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 10 | VR-1 | |
| 03 | 13:11:32 | H-3 | H-3 | 2 | H | 28 | BA | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | VR-2 | NOTE 2 |
| 03 | 13:11:32 | G-3 | G-3 | 2 | B | 2 | GL | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | VR-2 | NOTE 2 |
| 03 | 13:11:32 | F-3 | F-3 | 2 | H | 28 | BA | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | VR-2 | NOTE 2 |
| 03 | 13:11:32 | F-3 | F-3 | 2 | B | 2 | GL | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | VR-2 | NOTE 2 |
| 03 | 13:11:32 | D-3 | D-3 | 2 | B | 28 | BA | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | VR-2 | NOTE 2 |
| 03 | 13:11:32 | C-3 | C-3 | 2 | B | 28 | BA | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | VR-2 | NOTE 2 |
| 03 | 13:11:32 | E-3 | E-3 | 2 | B | 2 | GL | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | VR-2 | NOTE 2 |
| 03 | 13:11:32 | D-4 | D-4 | 2 | B | 1 | GL | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | VR-1 | VR-2 |
| 03 | 13:11:32 | C-4 | C-4 | 2 | B | 1 | GL | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | VR-1 | VR-2 |
| 03 | 13:11:32 | B-4 | B-4 | 2 | B | 2 | BL | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | VR-1 | VR-2 |
| 03 | 13:11:32 | D-5 | D-5 | 2 | B | 2 | BL | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | | |
| 03 | 13:11:32 | E-4 | E-4 | 2 | B | 2 | BL | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | | |
| 03 | 13:11:32 | B-4 | B-4 | 2 | B | 2 | BL | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | | |
| 03 | 13:11:32 | H-7 | H-7 | 2 | C | 6 | SU | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | | |
| 03 | 13:11:32 | H-7 | H-7 | 2 | C | 6 | SU | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | | |
| 03 | 13:11:32 | H-6 | H-6 | 2 | C | 6 | SU | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | | |
| 03 | 13:11:32 | H-5 | H-5 | 2 | C | 6 | SU | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | | |
| 03 | 13:11:32 | H-3 | H-3 | 2 | C | 6 | SU | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | | |
| 03 | 13:11:32 | F-7 | F-7 | 2 | C | 6 | SU | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | | |
| 03 | 13:11:32 | F-6 | F-6 | 2 | C | 6 | SU | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | | |
| 03 | 13:11:32 | F-3 | F-3 | 2 | C | 6 | SU | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | | |
| 03 | 13:11:32 | F-5 | F-5 | 2 | C | 6 | SU | MCBS | TESTING | PROGRAM | | M-02AB02 | 0 | 5 | | |

*SYSTEM: MAIN STEAM (AB)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: H-02AB02

| * VALVE * NU. | PRID COOR. | 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-076 | E-7 | 2 | C | 6 | SV | SA | C | RVT | SY | | | | |
| V-077 | E-6 | 2 | C | 6 | SV | SA | C | RVT | SY | | | | |
| V-078 | E-5 | 2 | C | 6 | SV | SA | C | RVT | SY | | | | |
| V-079 | 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. | PRID 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 | AD | 0 | BT-C | CS | 5 | | VR-1 | NOTE 3 |
| * FCV-520 | C-7 | NC | B | 14 | ANG | AD | 0 | FST | CS | | | VR-2 | |
| * FCV-530 | B-7 | NC | B | 14 | ANG | AD | 0 | PIT | 2Y | | | VR-1 | NOTE 3 |
| * FCV-540 | B-7 | NC | B | 14 | ANG | AD | 0 | BT-C | CS | 5 | | VR-2 | NOTE 3 |
| * FCV-550 | E-7 | NC | B | 4 | GL | AD | C | FST | CS | | | VR-1 | NOTE 4 |
| * FCV-560 | C-7 | NC | B | 4 | GL | AD | C | PIT | 2Y | | | VR-2 | |
| * FCV-570 | A-7 | NC | B | 4 | GL | AD | C | BT-C | CS | 5 | | VR-1 | NOTE 4 |
| * FCV-580 | B-7 | NC | B | 4 | GL | AD | C | FST | CS | | | VR-2 | |
| | | | | | | | | PIT | 2Y | | | VR-1 | NOTE 4 |

..... 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. | PSID COOR. | ISI CLASS | IST CAT | VALVE SIZE | VALVE TYPE | ACT TYPE | NORM PGS | TEST ROAT. | TEST FPE | MAX STRK TIME | MAX LEAKG | RELIEF REQUEST | REMARKS |
|-------------|------------|-----------|---------|------------|------------|----------|----------|------------|----------|---------------|-----------|----------------|---------|
| FV-39 | G-3 | 2 | B | 14 | GA | AD | 0 | BT-C | CS | 5 | | VR-1 | NOTE 5 |
| | | | | | | | | BT-P | 0 | | | 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 | 0 | | | 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 | 0 | | | 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 | 0 | | | 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 | 0 | | | | NOTE 5 |
| V-121 | F-4 | 2 | C | 14 | CK | SA | 0 | CVT-C | CS | | | | NOTE 5 |
| | | | | | | | | CVT-0 | 0 | | | | NOTE 5 |
| V-122 | F-7 | 2 | C | 14 | CK | SA | 0 | CVT-C | CS | | | | NOTE 5 |
| | | | | | | | | CVT-0 | 0 | | | | NOTE 5 |
| V-123 | C-7 | 2 | C | 14 | CK | SA | 0 | CVT-C | CS | | | | NOTE 5 |
| | | | | | | | | CVT-0 | 0 | | | | NOTE 5 |
| V-124 | C-3 | 2 | C | 4 | CK | SA | C | CVT-C | CS | | | | NOTE 5 |
| 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 | | | | NOTE 6 |
| 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 11 JUN 84 13:13:27 RID | | 5 | | 03 MAY 84 JEFF | | TESTING PROGRAM | | M-02AL01 | | RELIEF | | REMARKS | |
|----------------------------------|-------|---------------|-----|----------------|------|-----------------|------|----------|------|---------|-------|---------|---------|
| SYSTEM: AUXILIARY FEEDWATER (AL) | | VALVE INSERVE | | VALVE | | TESTING | | MAX STRK | | REQUEST | | | |
| * VALVE | FRID | ISI | ISI | VALVE | TYPE | ACT | HORW | TEST | TEST | TIME | LEAKG | | |
| * NO. | COOR. | CLASS | CAT | SIZE | TYPE | TYPE | PUS | ROTI | FRI | | | | |
| 0-001 | H-4 | 3 | C | 10 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-002 | D-4 | 3 | C | 8 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-003 | H-4 | 3 | C | 8 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-004 | F-4 | 3 | C | 6 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-009 | E-4 | 3 | C | 6 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-012 | C-4 | 3 | C | 6 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-015 | H-4 | 3 | C | 8 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-029 | G-5 | 3 | C | 2 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-030 | H-3 | 3 | C | 6 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-033 | F-7 | 2 | C | 4 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-036 | H-7 | 2 | C | 4 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-041 | F-5 | 3 | C | 2 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-042 | D-5 | 3 | C | 6 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-045 | C-7 | 2 | C | 4 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-048 | D-7 | 2 | C | 4 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-053 | D-5 | 3 | C | 2 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-054 | H-5 | 3 | C | 8 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-057 | E-7 | 2 | C | 4 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-062 | G-7 | 2 | C | 4 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-067 | D-7 | 2 | C | 4 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| 0-072 | H-7 | 2 | C | 4 | CK | SA | C | CVI-0 | 0 | | | | NOTE 6 |
| HV-5 | H-7 | 2 | B | 4 | GL | RD | 0 | NA | NA | | | | NOTE 7 |
| HV-6 | G-6 | 2 | B | 4 | BL | AU | 0 | PAS | NA | | | | NOTE 7 |
| HV-7 | F-6 | 2 | B | 4 | BL | RD | 0 | NA | NA | | | | NOTE 7 |
| HV-8 | E-6 | 2 | B | 4 | BL | AU | 0 | PAS | NA | | | | NOTE 7 |
| HV-9 | D-6 | 2 | B | 4 | BL | RD | 0 | NA | NA | | | | NOTE 7 |
| HV-10 | D-6 | 2 | B | 4 | GL | AD | 0 | PAS | NA | | | | NOTE 7 |
| HV-11 | C-6 | 2 | B | 4 | EL | RD | 0 | NA | NA | | | | NOTE 7 |
| HV-12 | H-6 | 2 | B | 4 | GL | AU | 0 | PAS | NA | | | | NOTE 7 |
| HV-30 | F-3 | 3 | B | 6 | BIF | RD | 0 | PAS | NA | | | | NOTE 7 |
| HV-31 | E-3 | 3 | B | 6 | BIF | RD | 0 | BT-0 | 0 | 15 | | | NOTE 36 |
| HV-32 | C-3 | 3 | B | 6 | BIF | RD | 0 | BT-6 | 0 | 15 | | | NOTE 36 |
| HV-33 | H-3 | 3 | B | 6 | BIF | RD | 0 | BT-0 | 0 | 15 | | | NOTE 36 |
| HV-34 | H-3 | 3 | B | 6 | BIF | RD | 0 | BT-0 | 0 | 15 | | | NOTE 36 |
| HV-35 | D-3 | 3 | B | 6 | BA | RD | 0 | PIT | 0 | 30 | | | NOTE 36 |
| HV-36 | B-3 | 3 | B | 10 | BA | RD | 0 | PIT | 0 | 30 | | | NOTE 36 |

..... END REPORT

DATE 25 JUL 84 11:19:35 RID

6 03 MAY 84 JEFF

*SYSTEM: REACTOR COOLANT (BB)

WCGS INSERVICE TESTING PROGRAM WVG. NO.: M-028801

| VALVE NO. | P&ID COUR. | ISI CLASS | IST CAT | VALVE SIZE | VALVE TYPE | ACT TYPE | NDRR 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 | SA | 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 | B-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

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

7 03 MAY 84 JEFF

WCBS INSERVICE TESTING PROGRAM DWG. NO.: H-028802

| * VALVE NO. | P&ID COOR. | 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 | | | | |
| V-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 | D | 4 | BAL | AD | D/C | PIT | 2Y | | | | |
| PCV-455C | B-4 | 1 | H | 4 | BAL | AD | D/C | PAS | NA | | | | |
| PCV-456A | E-8 | 1 | D | 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-02BB03

| * VALVE NO. | FRID COUR. | ISI CLASS | IST CAT | VALUE SIZE | VALVE TYPE | ACT TYPE | NRH POS | TEST ROAT. | TEST FRE | MAX STRK TIME | MAX LEAKG | RELIEF REQUEST | REMARKS |
|-------------|------------|-----------|---------|------------|------------|----------|---------|------------|----------|---------------|-----------|----------------|-------------|
| 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 | RVT | 5Y | | | | |
| 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 | RVT | 5Y | | | | |
| 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 | RVT | 5Y | | | | |
| 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-219 | 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 | RVT | 5Y | | | | |
| 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 | E-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-6 | 2 | B | .75 | GL | AD | 0 | PAS | NA | | | | |
| HV-8141B | E-6 | 2 | B | .75 | GL | AD | 0 | PAS | NA | | | | |
| HV-8141C | C-6 | 2 | B | .75 | GL | AD | 0 | PAS | NA | | | | |
| HV-8141D | E-6 | 2 | B | .75 | GL | AD | 0 | PAS | NA | | | | |
| HV-8351A | E-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 | | | |

| * VALVE NO. | REACTOR COOLANT (88) | ISI CLASS | IST CAT | VALVE SIZE | WCS VALVE TYPE | INSERVICE ACT TYPE | TESTING PROGRAM | DWG. NO. | TEST FRE | TEST FRE | MAX STRK TIME | MAX LEAKG | RELIEF REQUEST | REMARKS |
|-------------|----------------------|-----------|---------|------------|----------------|--------------------|-----------------|----------|----------|----------|---------------|-----------|----------------|-------------|
| * HV-8351C | C-6 | 2 | A | 2 | GL | MD | BT-C PIT | CS | 2Y | CS | 10 | | VR-5 | NOTES 12,36 |
| * HV-8351D | C-6 | 2 | A | 2 | GL | MD | BT-C PIT | CS | 2Y | CS | 10 | | VR-5 | NOTES 12,36 |

..... END REPORT

DATE 11 JUL 84 13:15:42 RID 9 03 MAY 84 JEFF
 *SYSTEM: REACTOR COOLANT (RB) MCBS INSERVICE TESTING PROGRAM DWG. NO.: N-02BB04
 * VALVE P&ID ISI VALVE TYPE ACT HORN TEST TEST TEST TEST TEST
 * NO. UOOR. CLASS CAT SIZE TYPE TYPE TYPE POS KORT. FRE FRE FRE FRE FRE
 HV-8001A F-4 2 B 1 GL SD C BT-0 CS CS 10 VR-1 NOTE 13
 HV-8001B F-4 2 B 1 GL SD C BT-C CS CS 10
 HV-8002A F-3 2 B 1 GL SD C PII CS 27
 HV-8002B F-3 2 B 1 GL SD C BT-0 CS CS 10
 HV-8002C F-3 2 B 1 GL SD C BT-C CS CS 10
 HV-8002D F-3 2 B 1 GL SD C PII CS 27
 HV-8002E F-3 2 B 1 GL SD C BT-0 CS CS 10
 HV-8002F F-3 2 B 1 GL SD C BT-C CS CS 10
 HV-8002G F-3 2 B 1 GL SD C PII CS 27
 HV-8002H F-3 2 B 1 GL SD C BT-0 CS CS 10
 HV-8002I F-3 2 B 1 GL SD C BT-C CS CS 10
 HV-8002J F-3 2 B 1 GL SD C PII CS 27

..... END REPORT

.DATE 11 JUL 84 13:20:15 RID 10 08 MAY 84 JEFF

*SYSTEM: CHEM. AND VOL. CONTROL (88) MCGS INSERVICE TESTING PROGRAM DWG. NO.: M-02BG01

| * VALVE NO. | PRID COOR. | ISI CLASS | ISI CAT | VALVE SIZE | VALVE TYPE | ACT TYPE | NORM POS | TEST ROMT. | TEST FRE | MAX STRK TIME | MAX LEAKG | RELIEF REQUEST | REMARKS |
|-------------|------------|-----------|---------|------------|------------|----------|----------|------------|----------|---------------|-----------|----------------|----------------|
| 8381 | F-4 | 2 | A,C | 3 | CK | SA | 0 | AT-1 | RR | | | VR-3 | |
| | | | | | | | | CVT-0 | 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 | | | | |
| 8117 | H-3 | 2 | C | 2 | RV | SA | C | AT-1 | RR | | | VR-3 | |
| V-203 | E-7 | 3 | C | .8 | RV | SA | C | CVT-C | CS | | | VR-5 | |
| 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 | | | VR-5 | NOTES 14,36 |
| | | | | | | | | AT-1 | RR | | | | |
| | | | | | | | | 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 | SO | C | PIT | 2Y | | | | |
| | | | | | | | | BT-0 | 0 | 10 | | VR-1 | |
| | | | | | | | | BT-C | 0 | 10 | | | |
| | | | | | | | | FST | 0 | | | | |
| HV-8153B | D-7 | 1 | B | 1 | GL | SO | C | PIT | 2Y | | | | |
| | | | | | | | | BT-0 | 0 | 10 | | VR-1 | |
| | | | | | | | | BT-C | 0 | 10 | | | |
| | | | | | | | | FST | 0 | | | | |
| HV-8154A | D-8 | 1 | B | 1 | GL | SO | C | PIT | 2Y | | | | |
| | | | | | | | | BT-0 | 0 | 10 | | VR-1 | |
| | | | | | | | | BT-C | 0 | 10 | | | |
| | | | | | | | | FST | 0 | | | | |
| HV-8154B | D-8 | 1 | B | 1 | GL | SO | C | PIT | 2Y | | | | |
| | | | | | | | | BT-0 | 0 | 10 | | VR-1 | |
| | | | | | | | | BT-C | 0 | 10 | | | |
| | | | | | | | | FST | 0 | | | | |
| HV-8160 | F-3 | 2 | A | 3 | GL | SO | 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 | G-7 | 1 | B | 3 | GL | AO | 0 | PIT | 2Y | | | | |
| | | | | | | | | BT-C | CS | >15 | | VR-1 | (> OR = TO 15) |

*SYSTEM: CHEM. AND VOL. CONTROL (86) MCBS INSERVICE TESTING PROGRAM DWG. NO.: M-028601

| * VALVE | P&ID | ISI | ISI | VALVE | VALVE | ACT | NORM | TEST | TEST | MAX STRK | MAX | RELIEF | REMARKS |
|---------|--------|-------|-----|-------|-------|------|------|-------|------|----------|-------|---------|---------|
| * NO. | COORD. | CLASS | CAT | SIZE | TYPE | TYPE | POS | ROVT. | FRE | TIME | LEAKG | REQUEST | |
| | | | | | | | | FST | CS | | | | |
| | | | | | | | | PIT | 2Y | | | | NOTE 16 |

..... END REPORT

.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 * NO. | PSID COORD. | ISI CLASS | IST CAT | VALUE SIZE | VALUE TYPE | ACT TYPE | NORM POS | TEST ROPT. | TEST FRE | MAX STRK TIME | MAX LEAKG | RELIEF REQUEST | REMARKS |
|------------------|----------------|--------------|------------|---------------|---------------|-------------|-------------|---------------|-------------|------------------|--------------|-------------------|---------|
| V-028 | B-4 | 3 | C | .75 | RV | SA | C | RVT | 5Y | | | | |
| 8119 | D-4 | 2 | C | 2 | RV | SA | C | RVT | 5Y | | | | |
| TV-130 | H-3 | 3 | B | 6 | BTF | AD | 0 | PAS | NA | | | | |
| LCV-112A | E-2 | 2 | B | 3 | TWY | AD | NA | 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-6 | 2 | C | 4 | CK | SA | C | RVT | 5Y | | | | |
| 8481A | C-4 | 2 | C | 4 | CK | SA | C | CVT-0 | 0 | | | | |
| 8481B | B-4 | 2 | C | 4 | CK | SA | C | CVT-0 | 0 | | | | |
| 8497 | E-4 | 2 | C | 3 | CK | SA | C | CVT-0 | 0 | | | | |
| V-8546A | C-7 | 2 | C | 8 | CK | SA | C | CVT-C | 0 | | | | |
| V-8546B | B-7 | 2 | C | 8 | CK | SA | C | CVT-0 | RR | | | VR-7 | |
| V-891 | E-4 | 2 | C | 2 | CK | SA | C | CVT-0 | RR | | | VR-7 | |
| V-895 | E-4 | 2 | C | 2 | CK | SA | C | CVT-0 | 0 | | | | |
| HV-8105 | E-2 | 2 | A | 3 | GA | NO | 0 | CVT-0 | 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 | LS | 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-0 | 0 | 10 | | | NOTE 36 |
| * | | | | | | | | BT-C | 0 | 10 | | | |
| HV-8111 | E-4 | 2 | B | 2 | GL | NO | 0 | PIT | 2Y | | | | |
| * | | | | | | | | BT-0 | 0 | 10 | | | NOTE 36 |
| * | | | | | | | | BT-C | 0 | 10 | | | |
| FCV-121 | D-4 | 2 | B | 3 | GL | NO | 0 | PIT | 2Y | | | | |
| HCV-182 | E-3 | 2 | B | 3 | GL | NO | 0 | PAS | NA | | | | |
| LCV-112B | 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-0 | 0 | | | | |
| V-590 | C-4 | 2 | C | 1 | CK | SA | C | CVT-C | 0 | | | | |
| * | | | | | | | | CVT-0 | 0 | | | | |
| V-591 | B-3 | 2 | C | 2 | CK | SA | C | CVT-C | 0 | | | | |
| HV-8357A | E-4 | 2 | B | 1 | GL | SO | C | CVT-C | CS | | | | NOTE 38 |
| * | | | | | | | | BT-0 | 0 | 10 | | | |
| * | | | | | | | | BT-C | 0 | 10 | | | |
| HV-8357B | B-4 | 2 | B | 1 | GL | SO | C | PIT | 2Y | | | | |
| * | | | | | | | | BT-0 | 0 | 10 | | | |
| * | | | | | | | | BT-C | 0 | 10 | | | |
| FCV-111B | G-5 | 2 | B | 2 | DIA | NO | 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 4th 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 | MAX | RELIEF | REMARKS |
|---------|------|-------|-----|-------|-------|------|------|-------|------|------|-------|---------|---------|
| * NO. | CDR. | CLASS | CAI | SIZE | TYPE | TYPE | POS | RDMT. | FRE | TIME | LEAKG | REQUEST | |
| 7686 | E-4 | 2 | C | .8 | RV | SA | C | RJT | SY | | | | |

..... END REPORT

| DATE | TIME | VALVE | CLASS | IST | VALVE SIZE | VALVE TYPE | WCS | INSERVICE | JEFF | TEST PROGRAM | DWG. NO. | TEST FREQ. | MAX STRK TIME | MAX LEAKG | RELIEF REQUEST | REMARKS |
|--------------------------------------|----------|----------|-------|-----|------------|------------|------|-----------|------|--------------|----------|------------|---------------|-----------|----------------|---------|
| DATE 11 | JUL 84 | 15:21:50 | RID | 13 | 08 | MAY 84 | JEFF | | | | | | | | | |
| *SYSTEM: CHER. AND VOL. CONTROL (B6) | | | | | | | | | | | | | | | | |
| * VALVE | NO. | PNID | IS | IST | VALVE SIZE | VALVE TYPE | WCS | INSERVICE | JEFF | TEST PROGRAM | DWG. NO. | TEST FREQ. | MAX STRK TIME | MAX LEAKG | RELIEF REQUEST | REMARKS |
| | 8496 | B-8 | 3 | C | 3 | CK | | | | CVI-0 | 0 | | | | | |
| | U-147 | B-8 | 3 | C | 3 | CK | | | | CVI-0 | 0 | | | | | |
| | U-155 | B-6 | 3 | C | .75 | CK | | | | PAS | NA | | | | | |
| | U-154 | B-3 | 3 | C | 2 | CK | | | | PAS | NA | | | | | |
| | U-165 | A-6 | 3 | C | 3 | CK | | | | CVI-0 | 0 | | | | | |
| | U-174 | A-4 | 2 | C | 3 | CK | | | | CVI-0 | CS | | | | | NOTE 19 |
| | U-180 | E-3 | 3 | C | 2 | CK | | | | PAS | NA | | | | | |
| | U-184 | A-4 | 2 | C | 2 | CK | | | | PAS | NA | | | | | |
| | HV-8104 | A-4 | 2 | B | 2 | GL | | | | BI-0 | 0 | | 10 | | | NOTE 36 |
| | FCV-1104 | B-3 | 3 | B | 2 | GL | | | | PIT | 2Y | | | | | |
| | U-167 | B-6 | 3 | C | .75 | CK | | | | PIT | 0 | | | | | |
| | U-188 | B-2 | 2 | C | 1 | CK | | | | PAS | NA | | | | | |
| | | | | | | | | | | | | | | | | UR-1 |
| END REPORT | | | | | | | | | | | | | | | | |

.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 | 8-3 | 2 | A.C | 3 | CK | SA | 0 | AT-1 | RR | | | VR-3 | |
| HP-8047 | 8-4 | 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 (BN) WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-028801

| * VALVE NO. | PAID COOR. | 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 | R | C | AT-1 | RR | | | VR-5 | |
| V-046 | A-3 | 2 | A | 3 | GA | R | C | AT-1 | RR | | | VR-5 | |
| HV-1 | F-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 | 0 | PIT | 2Y | | | | |
| | | | | | | | | BT-C | CS | 10 | | VR-1 | NOTE 20 |
| | | | | | | | | FST | CS | | | | |
| HV-3 | C-5 | 2 | B | 4 | GL | AO | 0 | PIT | 2Y | | | | |
| | | | | | | | | BT-C | CS | 10 | | VR-1 | NOTE 20 |
| | | | | | | | | FST | CS | | | | |
| HV-4 | A-5 | 2 | B | 4 | GL | AO | 0 | 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 | | | | |

*SYSTEM: STEAM GEN. BLOWDOWN (BM) MCGS INSERVICE TESTING PROGRAM DMG. NO.: A-028491
 * VALVE PSID ISI CLASS CAT ISI VALVE ACT HORN TEST TEST HESI MAX STRK MAX RELIEF
 * WC. COUR. CUR. VALVE SIZE TYPE TYPE PUS RDR1. PRE FRE LEAKG REQUEST REMARKS

 *..... END REPORT *.....*

.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-828N01

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

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

| * VALVE NO. | PRID COOR. | ISI CLASS | IST CAT | VALVE SIZE | VALVE TYPL | ACT TYPE | RODM POS | TEST ROHT. | TEST FRE | MAX STRK TIME | MAX LEAKG | RELIEF REQUEST | REMARKS |
|-------------|------------|-----------|---------|------------|------------|----------|----------|------------|----------|---------------|-----------|----------------|---------|
| HV-11 | H-5 | 3 | B | 12 | BTF | MO | 0 | BT-C | 0 | 60 | | | NOTE 36 |
| HV-12 | F-5 | 3 | B | 12 | BTF | MO | 0 | PIT | 2Y | | | | NOTE 36 |
| V-004 | H-6 | 3 | C | 10 | CK | SA | C | PIT | 2Y | | | | |
| V-013 | E-6 | 3 | C | 10 | CK | SA | C | CVT-0 | 0 | | | | |
| V-996 | E-6 | 3 | C | .8 | RV | SA | C | CVT-0 | 0 | | | | |
| V-997 | G-6 | 3 | C | .8 | RV | SA | C | RVT | 5Y | | | | |
| 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 JUN 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 NO. | PSID | ISI | IST | VALVE SIZE | VALVE TYPE | ACT TYPE | NORM POS | TEST ROHT. | TEST FRE | MAX STRK TIME | MAX LEAKG | RELIEF REQUEST | REMARKS |
|-------------|------|-----|-----|------------|------------|----------|----------|------------|----------|---------------|-----------|----------------|---------|
| V-083 | C-5 | 2 | A | 6 | GA | H | C | AT-1 | RR | | | | |
| 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-095 | 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 | JUL 84 | 13:48:52 | RID | 19 | 08 MAY 84 | JEFF | MCGS INSERVICE TESTING PROGRAM | | | | | | | | | |
|----------|--------|----------|-------|-------|-----------|-------|--------------------------------|------|------|-------|------|------|-------|---------|--------|---------|
| SYSTEM: | VALVE | PSID | COOR. | CLASS | ISI | VALVE | VALVE | ACT | HORN | TEST | TEST | FRE | MAX | MAX | RELIEF | REMARKS |
| | | | | | | SIZE | TYPE | TYPE | PUS | ROUT. | TIME | STRK | LEAKG | REQUEST | | |
| * V-001 | F-4 | 3 | C | C | 30 | 30 | CK | SA | C | CVT-0 | 0 | 0 | | | | |
| * V-004 | C-4 | 3 | C | C | 30 | 30 | CK | SA | C | CVT-0 | 0 | 0 | | | | |
| * V-241 | F-2 | 3 | C | C | 30 | 30 | CK | SA | C | LVT-C | 0 | 0 | | | | |
| * V-262 | C-2 | 3 | C | C | 30 | 30 | CK | SA | C | CVT-0 | RR | RR | | | | |
| * HV-85 | F-2 | 3 | B | B | 30 | 30 | BTf | MO | 0 | CVT-C | RR | RR | | | | |
| * HV-86 | C-2 | 3 | B | B | 30 | 30 | BTf | MO | 0 | BT-C | 2Y | 2Y | 30 | | VR-9 | NOTE 36 |
| * HV-91 | F-6 | 3 | B | B | 3 | 3 | GA | MO | C | BT-C | 0 | 0 | 30 | | VR-9 | NOTE 36 |
| * HV-92 | C-6 | 3 | B | B | 3 | 3 | GA | MO | C | BT-C | 0 | 0 | 30 | | | NOTE 36 |
| * HV-97 | E-5 | 3 | B | B | 3 | 3 | GA | MO | 0 | BT-C | 0 | 0 | 30 | | | NOTE 36 |
| * HV-98 | B-5 | 3 | B | B | 3 | 3 | GA | MO | 0 | BT-C | 0 | 0 | 30 | | | NOTE 36 |
| * HV-19 | F-4 | 3 | B | B | 3 | 3 | GA | MO | C | BT-C | 0 | 0 | 30 | | | NOTE 36 |
| * FDV-20 | B-4 | 3 | B | B | 3 | 3 | GA | MO | C | BT-C | 0 | 0 | 30 | | | NOTE 36 |

..... END REPORT

| DATE | TIME | VALVE | CLASS | ISI | VALVE SIZE | VALVE TYPE | ACT TYPE | JEFF | TESTING PROGRAM | DWG. NO.: | TEST FREQ | MAX STRK TIME | MAX LEAK/G | RELIEF REQUEST | REMARKS |
|--|------------------------|----------|-------|-----|------------|------------|----------|------|-----------------|-----------|-----------|---------------|------------|----------------|---------|
| 061E 11 | MU 24 | 13:49:29 | RI 20 | 08 | MAY 84 | JEFF | | | | | | | | | |
| * SYSTEM: ESSENTIAL SERV. WTR. (EF) WCSS INSERVICE | | | | | | | | | | | | | | | |
| * VALVE | M-02EF01 | | | | | | | | | | | | | | |
| * HU. | COOR. | P&ID | ISI | ISI | VALVE | VALVE | ACT | ACT | HORN | TEST | TEST | MAX STRK | MAX | RELIEF | REMARKS |
| | | | CLASS | DAI | SIZE | TYPE | TYPE | | POS | ROBT. | FRE | TIME | LEAK/G | REQUEST | |
| * HU-23 | F-7 | | 3 | B | 30 | BTF | NO | | 0 | BT-C | 0 | 30 | | | NOTE 36 |
| * HU-24 | E-7 | | 3 | B | 30 | BTF | NO | | 0 | BT-C | 0 | 30 | | | NOTE 36 |
| * HU-25 | F-7 | | 3 | B | 30 | BTF | NO | | 0 | BT-C | 0 | 30 | | | NOTE 36 |
| * HU-26 | E-7 | | 3 | B | 30 | BTF | NO | | 0 | BT-C | 0 | 30 | | | NOTE 36 |
| * HU-44 | B-7 | | 3 | B | 2 | GL | AO | | 0 | BT-C | 0 | 5 | | VR-1 | |
| * V-076 | B-6 | | 3 | C | 2.5 | CK | SA | | C | FST | 0 | | | VR-2 | |
| | ***** END REPORT ***** | | | | | | | | | | | | | | |

| DATE | TIME | VALVE | NO. | CLASS | COOR. | PSID | ISI | VALVE | TYPE | SIZE | CK | SA | NO | WORM | POS | TEST | DWG. | NO. | TEST | FRE | MAX STRK | MAX LEAKG | RELIEF REQUEST | REMARKS |
|-------|--------|-------|-----|-------|--------|------|-----|-------|------|------|----|----|----|------|-----|------|------|-----|------|-----|----------|-----------|----------------|---------|
| 08 | MAY 84 | JEFF | 21 | 08 | MAY 84 | JEFF | | | | | | | | | | | | | | | | | | |
| 0-346 | E-6 | 3 | C | 2.5 | CK | SA | 0 | | | | | | | | | | | | | | | | | |
| HV-31 | E-7 | 2 | A | 14 | BTF | NO | 0 | | | | | | | | | | | | | | | | | |
| HV-32 | 8-7 | 2 | A | 14 | BTF | NO | 0 | | | | | | | | | | | | | | | | | |
| HV-33 | 6-7 | 2 | A | 14 | BTF | NO | 0 | | | | | | | | | | | | | | | | | |
| HV-34 | 8-7 | 2 | A | 14 | BTF | NO | 0 | | | | | | | | | | | | | | | | | |
| HV-37 | 6-2 | 3 | B | 36 | BTF | NO | 0 | | | | | | | | | | | | | | | | | |
| HV-38 | E-2 | 3 | B | 36 | BTF | NO | 0 | | | | | | | | | | | | | | | | | |
| HV-39 | F-2 | 3 | B | 36 | BTF | NO | 0 | | | | | | | | | | | | | | | | | |
| HV-40 | D-2 | 3 | B | 36 | BTF | NO | 0 | | | | | | | | | | | | | | | | | |
| HV-41 | E-2 | 3 | B | 36 | BTF | NO | 0 | | | | | | | | | | | | | | | | | |
| HV-42 | D-2 | 3 | B | 36 | BTF | NO | 0 | | | | | | | | | | | | | | | | | |
| HV-43 | E-7 | 3 | B | 2 | CL | NO | 60 | | | | | | | | | | | | | | | | | |
| HV-45 | 6-6 | 2 | A | 14 | BTF | NO | 0 | | | | | | | | | | | | | | | | | |
| HV-46 | D-6 | 2 | B | 14 | BTF | NO | 0 | | | | | | | | | | | | | | | | | |
| HV-47 | 6-6 | 2 | A | 14 | BTF | NO | 0 | | | | | | | | | | | | | | | | | |
| HV-48 | C-6 | 2 | A | 14 | BTF | NO | 0 | | | | | | | | | | | | | | | | | |
| HV-49 | 6-6 | 2 | A | 14 | BTF | NO | 0 | | | | | | | | | | | | | | | | | |
| HV-50 | D-6 | 2 | A | 14 | BTF | NO | 0 | | | | | | | | | | | | | | | | | |
| HV-51 | 6-4 | 3 | B | 24 | BTF | NO | 0/C | | | | | | | | | | | | | | | | | |
| HV-52 | C-4 | 3 | B | 24 | PTF | NO | 0/C | | | | | | | | | | | | | | | | | |

| *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 | REMARKS |
| * NO. | COORD. | CLASS | CAF | SIZE | TYPE | TYPE | POS | ROMT. | FRE | TIME | LEAKG | REQUEST | |
| HV-59 | G-3 | 3 | B | 24 | BTF | NO | O/C | BT-C | 0 | 60 | | | NOTE 36 |
| HV-60 | C-3 | 3 | B | 24 | BTF | NO | O/C | PIT | 2Y | | | | NOTE 36 |
| HV-87 | E-3 | 3 | B | 1 | GA | SO | 0 | BT-C | 0 | 5 | | VR-2 | NOTE 23 |
| HV-88 | D-3 | 3 | B | 1 | GA | SO | 0 | FST | 0 | | | | |
| | | | | | | | | PIT | 2Y | | | | NOTE 23 |
| | | | | | | | | FST | 0 | | | | |
| | | | | | | | | PIT | 2Y | | | | |

..... END REPORT

| DATE | TIME | RID | WCS | IN | SERVICE | TESTING | PROGRAM | DWG. | NO. | TEST | FRE | MAX | STRK | MAX | LEAKG | RELIEF | REMARKS |
|--------|-----------|---------|-------|------|---------|---------|---------|-------|------|------|------|------|------|------|-------|--------|-------------|
| SYSTEM | COMPONENT | COOLING | WTR. | (EG) | VALVE | ACT | HORN | TEST | NO. | REQ. | TIME | TIME | TIME | TIME | TIME | TIME | TIME |
| VALVE | NO. | CLASS | COOR. | ISI | IST | VALVE | VALVE | TYPE | TYPE | TYPE | TYPE | TYPE | TYPE | TYPE | TYPE | TYPE | TYPE |
| NO. | CLASS | COOR. | ISI | IST | VALVE | VALVE | TYPE | TYPE | TYPE | TYPE | TYPE | TYPE | TYPE | TYPE | TYPE | TYPE | TYPE |
| NO. | CLASS | COOR. | ISI | IST | VALVE | VALVE | TYPE | TYPE | TYPE | TYPE | TYPE | TYPE | TYPE | TYPE | TYPE | TYPE | TYPE |
| U-003 | G-3 | 3 | C | 20 | CK | SA | C | CVT-0 | 0 | 0 | | | | | | | |
| U-007 | E-3 | 3 | C | 20 | CK | SA | C | CVT-0 | 0 | 0 | | | | | | | NOTE 24 |
| U-012 | D-3 | 3 | C | 20 | CK | SA | C | CVT-0 | 0 | 0 | | | | | | | NOTE 24 |
| U-016 | C-3 | 3 | C | 20 | CK | SA | C | CVT-0 | 0 | 0 | | | | | | | |
| U-130 | D-6 | 3 | C | 18 | CK | SA | 0/C | CVT-0 | CS | 30 | | | | | | | NOTE 36 |
| U-131 | D-6 | 3 | C | 18 | CK | SA | 0/C | CVT-0 | CS | 30 | | | | | | | NOTE 36 |
| U-159 | G-6 | 3 | C | 2 | RV | SA | C | RVT | 5Y | 30 | | | | | | | NOTE 36 |
| U-170 | C-6 | 3 | C | 2 | RV | SA | C | RVT | 5Y | 30 | | | | | | | NOTE 36 |
| U-305 | G-6 | 3 | C | 1 | RV | SA | C | RVT | 5Y | 30 | | | | | | | NOTE 36 |
| U-306 | C-6 | 3 | C | 1 | RV | SA | C | RVT | 5Y | 30 | | | | | | | NOTE 36 |
| U-306 | C-6 | 3 | C | 1 | RV | SA | C | RVT | 5Y | 30 | | | | | | | NOTE 36 |
| U-306 | F-7 | 3 | B | 1.5 | GL | RO | C | BT-0 | 0 | 0 | | | | | | | NOTE 36 |
| U-12 | C-7 | 3 | B | 1.5 | GL | RO | C | PIT | 2Y | 30 | | | | | | | NOTE 36 |
| U-13 | F-7 | 3 | B | 1.5 | GL | RO | C | BT-0 | 0 | 0 | | | | | | | NOTE 36 |
| U-14 | C-7 | 3 | B | 1.5 | GL | RO | C | PIT | 2Y | 30 | | | | | | | NOTE 36 |
| U-15 | D-6 | 3 | B | 1.5 | GL | RO | C | PIT | 2Y | 30 | | | | | | | NOTE 36 |
| U-16 | D-6 | 3 | B | 1.5 | GL | RO | C | PIT | 2Y | 30 | | | | | | | NOTE 36 |
| U-1 | G-7 | 3 | B | 3 | GL | AO | C | PAS | NA | 60 | | | | | | | NOTE 24, 36 |
| U-2 | C-7 | 3 | B | 3 | GL | AO | C | PAS | NA | 60 | | | | | | | NOTE 24, 36 |
| U-9 | G-6 | 3 | B | 2 | GL | AO | C | BT-C | 0 | 0 | | | | | | | NOTE 24, 36 |
| U-10 | C-6 | 3 | B | 2 | GL | AO | C | FST | 0 | 0 | | | | | | | NOTE 24, 36 |
| U-10 | C-6 | 3 | B | 2 | GL | AO | C | PIT | 2Y | 5 | | | | | | | VR-1 |
| U-10 | C-6 | 3 | B | 2 | GL | AO | C | BT-C | 0 | 0 | | | | | | | VR-2 |
| U-10 | C-6 | 3 | B | 2 | GL | AO | C | FST | 0 | 0 | | | | | | | VR-1 |
| U-10 | C-6 | 3 | B | 2 | GL | AO | C | PIT | 2Y | 5 | | | | | | | VR-2 |

..... END REPORT

| DATE | TIME | VALVE | COMPONENT | COOLING | WTR. | RID | 23 | 08 MAY 84 | JEFF | MCRS | INSERVICE | TESTING | PROGRAM | DWG. | NO.: | TEST | FRC | MAX | STRK | MAX | LEAKG | RELIEF | REMARKS | |
|--------|---------|---------|-----------|---------|--------|---------|--------|-----------|-------|--------|-----------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| * NO. | * CLASS | * CORR. | * ISJ | * CAT | * SIZE | * VALVE | * TYPE | * AFT | * POS | * RPT. | * RPT. | * TIME | * TIME | * TIME | * TIME | * TIME | * TIME | * TIME | * TIME | * TIME | * TIME | * TIME | * TIME | |
| V-936 | G-3 | | C | C | 18 | CK | SA | SA | 0 | CVT-0 | | 0 | | | | | | | | | | | | |
| V-849 | C-6 | | C | C | 8 | RV | SA | SA | 0 | RV | 5Y | | | | | | | | | | | | NOTE 36 | |
| V-852 | C-6 | | C | C | 8 | RV | SA | SA | 0 | RV | 5Y | | | | | | | | | | | | NOTE 36 | |
| V-861 | F-5 | | C | C | 18 | CK | A | A | 0 | CVT-0 | | | | | | | | | | | | | | |
| V-875 | G-6 | | C | C | 8 | RV | SA | SA | 0 | RV | 5Y | | | | | | | | | | | | | |
| V-827 | B-8 | | C | C | 8 | RV | SA | SA | 0 | RV | 5Y | | | | | | | | | | | | | |
| HV-53 | G-5 | | B | B | 18 | BTF | MO | MO | 0 | PAS | NA | | | | | | | | | | | | | |
| HV-54 | L-5 | | B | B | 18 | BTF | MO | MO | 0 | PAS | NA | | | | | | | | | | | | | |
| HV-191 | G-4 | | B | B | 18 | BTF | MO | MO | 0 | BT-0 | | 69 | | | | | | | | | | | NOTE 36 | |
| HV-182 | C-4 | | B | B | 18 | BTF | MO | MO | 0 | PIT | 2Y | 69 | | | | | | | | | | | NOTE 36 | |
| IV-29 | G-6 | | B | B | 28 | BTF | MO | MO | 0 | PIT | 2Y | 50 | | | | | | | | | | | NOTE 36 | |
| IV-38 | C-6 | | B | B | 28 | BTF | MO | MO | 0 | FST | 0 | 50 | | | | | | | | | | | | |
| HV-72 | G-2 | | B | B | 2 | GL | MO | MO | 0 | PIT | 2Y | 30 | | | | | | | | | | | | NOTE 36 |
| HV-73 | G-2 | | B | B | 2 | GL | MO | MO | 0 | BT-0 | | 30 | | | | | | | | | | | | NOTE 36 |
| HV-74 | G-1 | | B | B | 2 | GL | MO | MO | 0 | PIT | 2Y | 30 | | | | | | | | | | | | NOTE 36 |
| HV-75 | G-1 | | B | B | 2 | GL | MO | MO | 0 | BT-0 | | 30 | | | | | | | | | | | | 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 | 0 | | | VR-5 | |
| HV-58 | H-5 | 2 | A | 12 | GA | NO | 0 | AT-1 | RR | | | VR-5 | NOTE 36 |
| | | | | | | | | BT-C | 0 | 30 | | | |
| HV-59 | C-5 | 2 | A | 12 | GA | NO | 0 | PIT | 2Y | | | | |
| | | | | | | | | AT-1 | RR | | | VR-5 | NOTE 36 |
| | | | | | | | | BT-C | 0 | 30 | | | |
| HV-60 | A-5 | 2 | A | 12 | GA | NO | 0 | PIT | 2Y | | | | |
| | | | | | | | | AT-1 | RR | | | VR-5 | NOTE 36 |
| | | | | | | | | BT-C | 0 | 30 | | | |
| HV-61 | C-4 | 2 | A | 4 | GA | NO | 0 | PIT | 2Y | | | | |
| | | | | | | | | AT-1 | RR | | | VR-5 | NOTE 36 |
| | | | | | | | | BT-C | 0 | 30 | | | |
| HV-62 | A-4 | 2 | A | 4 | GA | NO | 0 | PIT | 2Y | | | | |
| | | | | | | | | AT-1 | RR | | | VR-5 | NOTE 36 |
| | | | | | | | | BT-C | 0 | 30 | | | |
| HV-69A | F-8 | 3 | B | 14 | BTF | AO | 0/C | PIT | 2Y | | | | |
| | | | | | | | | BT-C | 0 | 7 | | VR-1 | |
| | | | | | | | | FST | 0 | | | | |
| HV-69B | F-6 | 3 | B | 14 | BTF | AO | 0/C | PIT | 2Y | | | | |
| | | | | | | | | BT-C | 0 | 7 | | VR-1 | |
| | | | | | | | | FST | 0 | | | | |
| HV-70A | F-8 | 3 | B | 14 | BTF | AO | 0/C | PIT | 2Y | | | | |
| | | | | | | | | BT-C | 0 | 7 | | VR-1 | |
| | | | | | | | | FST | 0 | | | | |
| HV-70B | F-6 | 3 | B | 14 | BTF | AO | 0/C | PIT | 2Y | | | | |
| | | | | | | | | BT-C | 0 | 7 | | VR-1 | |
| | | | | | | | | FST | 0 | | | | |
| HV-71 | H-5 | 3 | B | 12 | GA | NO | 0 | PIT | 2Y | | | | |
| | | | | | | | | BT-C | 0 | 30 | | | NOTE 36 |
| HV-126 | G-5 | 3 | B | 12 | GA | NO | C | PIT | 2Y | | | | |
| | | | | | | | | BT-C | 0 | 30 | | | NOTE 36 |
| | | | | | | | | BT-C | 0 | 30 | | | |
| HV-127 | G-5 | 2 | A | 12 | GA | NO | C | PIT | 2Y | | | | |
| | | | | | | | | AT-1 | RR | | | VR-5 | NOTE 36 |
| | | | | | | | | BT-C | 0 | 30 | | | |
| | | | | | | | | BT-C | 0 | 30 | | | |
| HV-130 | B-5 | 2 | A | 12 | GA | NO | E | PIT | 2Y | | | | |
| | | | | | | | | AT-1 | RR | | | VR-5 | NOTE 36 |
| | | | | | | | | BT-C | 0 | 30 | | | |
| | | | | | | | | BT-C | 0 | 30 | | | |
| HV-131 | C-5 | 2 | A | 12 | GA | NO | C | PIT | 2Y | | | | |
| | | | | | | | | AT-1 | RR | | | VR-5 | NOTE 36 |
| | | | | | | | | BT-C | 0 | 30 | | | |
| | | | | | | | | BT-C | 0 | 30 | | | |
| HV-132 | B-4 | 2 | A | 4 | GA | NO | C | PIT | 2Y | | | | |
| | | | | | | | | AT-1 | RR | | | VR-5 | NOTE 36 |

*SYSTEM: COMPONENT COOLING WTR. (EG) WCGS INSERVICE TESTING PROGRAM DWG. NO.: H-02E603

| * 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 |
|-------------|------------|-----------|---------|------------|------------|----------|----------|-----------|----------|---------------|-----------|----------------|---------|
| | | | | | | | | BT-D | 0 | 30 | | | |
| | | | | | | | | GT-C | 0 | 30 | | | |
| HV-133 | C-5 | 2 | A | 4 | CA | NO | C | PIT | 2Y | | | | |
| | | | | | | | | AT-1 | RR | | | VR-5 | NOTE 36 |
| | | | | | | | | BT-D | 0 | 30 | | | |
| | | | | | | | | BT-C | 0 | 30 | | | |
| | | | | | | | | PIT | 2Y | | | | |

..... END REPORT

| DATE | TIME | VALVE | COORD. | CLASS | ISI | RESIDUAL HEAT REMOVAL (EJ) | VALVE SIZE | VALVE TYPE | INSERVICE | TESTING PROGRAM | DMG. NO. | TEST FREQ. | TEST TIME | MAX SINK TIME | LEAKG | RELIEF REQUEST | REMARKS | |
|-----------|----------|----------|--------|-------|-----|----------------------------|------------|------------|-----------|-----------------|----------|------------|-----------|---------------|-------|----------------|-------------|---------|
| 08 MAY 84 | 16:04:00 | 8700A | F-7 | 2 | C | C | 3 | RV | SA | C | | 5Y | | | | | | |
| | | 8700B | C-7 | 2 | C | C | 3 | RV | SA | C | | 5Y | | | | | | |
| | | 8730A | B-4 | 2 | C | C | 10 | CK | SA | C | | 0 | | | | | | |
| | | 8730B | C-4 | 2 | C | C | 10 | CK | SA | C | | 0 | | | | | | |
| | | 8841A | F-2 | 1 | C | C | 6 | CK | SA | C | | RR | | | | VR-6 | NOTE 37 | |
| | | 8841B | D-2 | 1 | C | C | 6 | CK | SA | C | | CS | | | | | VR-6 | NOTE 37 |
| | | 8958A | F-6 | 2 | C | C | 14 | CK | SA | C | | CS | | | | | | |
| | | 8958B | B-6 | 2 | C | C | 14 | CK | SA | C | | 0 | | | | | | |
| | | 8959A | G-3 | 2 | C | C | 8 | CK | SA | C | | CS | | | | | | |
| | | 8959B | A-4 | 2 | C | C | 8 | CK | SA | C | | CS | | | | | NOTE 26 | |
| | | HV-14 | H-3 | 2 | B | B | 1 | GL | SO | C | | CS | | | | | NOTE 26 | |
| | | HV-15 | A-5 | 2 | B | B | 1 | GI | SO | C | | HA | | | | | | |
| | | HV-5701A | F-8 | 1 | A | A | 12 | GA | MO | C | | RR | | | | | NOTES 8,36 | |
| | | HV-8701B | B-8 | 1 | A | A | 12 | GA | MO | C | | CS | | 120 | | | | |
| | | HV-8716A | E-3 | 2 | B | B | 10 | GA | MO | C | | CS | | 120 | | | | |
| | | HV-8716B | D-3 | 2 | B | B | 10 | GA | MO | C | | CS | | | | | | |
| | | HV-8804A | G-5 | 2 | B | B | 8 | GA | MO | C | | 2Y | | | | | NOTE 35 | |
| | | HV-8804B | A-4 | 2 | B | B | 8 | GA | MO | C | | CS | | | | | NOTE 36 | |
| | | HV-8807A | G-3 | 2 | B | B | 10 | GA | MO | C | | CS | | | | | NOTES 27,36 | |
| | | HV-8809B | C-3 | 2 | B | B | 10 | GA | MO | C | | CS | | | | | NOTES 27,36 | |
| | | HV-8811A | E-7 | 2 | B | B | 14 | GA | MO | C | | CS | | | | | NOTES 28,36 | |
| | | HV-8811B | D-7 | 2 | B | B | 14 | GA | MO | C | | CS | | | | | NOTE 36 | |
| | | HV-8840 | E-3 | 2 | B | B | 10 | GA | MO | C | | RR | | | | | NOTE 36 | |
| | | FCV-610 | H-6 | 2 | B | B | 2 | GA | MO | C | | RR | | | | | NOTES 28,36 | |

| *SYSTEM: RESIDUAL HEAT REMOVAL (EJ) WCGS INSERVICE TESTING PROGRAM DWG. NO.: H-02EJ01 | | | | | | | | | | H-02EJ01 | | | | | |
|---|--------|-------|-----|-------|-------|------|------|-------|------|----------|-------|---------|---------|--|--|
| * VALUE | FRID | ISI | ISI | VALVE | VALVE | ACT | HORN | TEST | TEST | MAX SIKK | MAX | RELIEF | REMARKS | | |
| * NO. | COORD. | CLASS | CAT | SIZE | TYPE | TYPE | POS | RONT. | FRE | TIME | LEAKG | REQUEST | | | |
| FCV-611 | A-5 | 2 | B | 2 | GA | AO | D | PIT | 2Y | | | | | | |
| FCV-618 | F-5 | 2 | B | 8 | BTF | AO | C | PIT | 2Y | 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-8898A | F-2 | 2 | B | .75 | GL | AO | C | FST | 0 | | | | | | |
| HCV-8898B | F-2 | 2 | B | .75 | GL | AO | C | PIT | 2Y | | | | | | |
| HCV-8898C | F-2 | 2 | B | .75 | GL | AO | C | BT-C | 0 | 10 | | VR-1 | | | |
| HCV-8898D | C-2 | 2 | B | .75 | GL | AO | C | FST | 0 | | | | | | |
| HCV-8898E | C-2 | 2 | B | .75 | GL | AO | C | PIT | 2Y | | | | | | |
| HCV-8898F | C-2 | 2 | B | .75 | GL | AO | C | BT-C | 0 | 10 | | VR-1 | | | |
| HV-21 | E-7 | 2 | B | 1 | GL | SO | C | FST | 0 | | | | | | |
| HV-22 | D-7 | 2 | B | 1 | GL | SO | C | PIT | 2Y | | | | | | |
| HV-23 | F-7 | 2 | A | 1 | GA | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-24 | D-6 | 2 | A | 1 | GA | SO | C | FST | 0 | | | VR-2 | | | |
| HV-25 | F-6 | 2 | A | 1 | GA | SO | C | PIT | 2Y | | | | | | |
| HV-26 | D-6 | 2 | A | 1 | GL | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-27 | F-6 | 2 | A | 1 | GA | SO | C | FST | 0 | | | VR-2 | | | |
| HV-28 | D-6 | 2 | A | 1 | GL | SO | C | PIT | 2Y | | | | | | |
| HV-29 | F-6 | 2 | A | 1 | GA | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-30 | D-6 | 2 | A | 1 | GL | SO | C | FST | 0 | | | VR-2 | | | |
| HV-31 | F-6 | 2 | A | 1 | GA | SO | C | PIT | 2Y | | | | | | |
| HV-32 | D-6 | 2 | A | 1 | GL | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-33 | F-6 | 2 | A | 1 | GA | SO | C | FST | 0 | | | VR-2 | | | |
| HV-34 | D-6 | 2 | A | 1 | GL | SO | C | PIT | 2Y | | | | | | |
| HV-35 | F-6 | 2 | A | 1 | GA | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-36 | D-6 | 2 | A | 1 | GL | SO | C | FST | 0 | | | VR-2 | | | |
| HV-37 | F-6 | 2 | A | 1 | GA | SO | C | PIT | 2Y | | | | | | |
| HV-38 | D-6 | 2 | A | 1 | GL | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-39 | F-6 | 2 | A | 1 | GA | SO | C | FST | 0 | | | VR-2 | | | |
| HV-40 | D-6 | 2 | A | 1 | GL | SO | C | PIT | 2Y | | | | | | |
| HV-41 | F-6 | 2 | A | 1 | GA | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-42 | D-6 | 2 | A | 1 | GL | SO | C | FST | 0 | | | VR-2 | | | |
| HV-43 | F-6 | 2 | A | 1 | GA | SO | C | PIT | 2Y | | | | | | |
| HV-44 | D-6 | 2 | A | 1 | GL | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-45 | F-6 | 2 | A | 1 | GA | SO | C | FST | 0 | | | VR-2 | | | |
| HV-46 | D-6 | 2 | A | 1 | GL | SO | C | PIT | 2Y | | | | | | |
| HV-47 | F-6 | 2 | A | 1 | GA | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-48 | D-6 | 2 | A | 1 | GL | SO | C | FST | 0 | | | VR-2 | | | |
| HV-49 | F-6 | 2 | A | 1 | GA | SO | C | PIT | 2Y | | | | | | |
| HV-50 | D-6 | 2 | A | 1 | GL | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-51 | F-6 | 2 | A | 1 | GA | SO | C | FST | 0 | | | VR-2 | | | |
| HV-52 | D-6 | 2 | A | 1 | GL | SO | C | PIT | 2Y | | | | | | |
| HV-53 | F-6 | 2 | A | 1 | GA | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-54 | D-6 | 2 | A | 1 | GL | SO | C | FST | 0 | | | VR-2 | | | |
| HV-55 | F-6 | 2 | A | 1 | GA | SO | C | PIT | 2Y | | | | | | |
| HV-56 | D-6 | 2 | A | 1 | GL | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-57 | F-6 | 2 | A | 1 | GA | SO | C | FST | 0 | | | VR-2 | | | |
| HV-58 | D-6 | 2 | A | 1 | GL | SO | C | PIT | 2Y | | | | | | |
| HV-59 | F-6 | 2 | A | 1 | GA | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-60 | D-6 | 2 | A | 1 | GL | SO | C | FST | 0 | | | VR-2 | | | |
| HV-61 | F-6 | 2 | A | 1 | GA | SO | C | PIT | 2Y | | | | | | |
| HV-62 | D-6 | 2 | A | 1 | GL | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-63 | F-6 | 2 | A | 1 | GA | SO | C | FST | 0 | | | VR-2 | | | |
| HV-64 | D-6 | 2 | A | 1 | GL | SO | C | PIT | 2Y | | | | | | |
| HV-65 | F-6 | 2 | A | 1 | GA | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-66 | D-6 | 2 | A | 1 | GL | SO | C | FST | 0 | | | VR-2 | | | |
| HV-67 | F-6 | 2 | A | 1 | GA | SO | C | PIT | 2Y | | | | | | |
| HV-68 | D-6 | 2 | A | 1 | GL | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-69 | F-6 | 2 | A | 1 | GA | SO | C | FST | 0 | | | VR-2 | | | |
| HV-70 | D-6 | 2 | A | 1 | GL | SO | C | PIT | 2Y | | | | | | |
| HV-71 | F-6 | 2 | A | 1 | GA | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-72 | D-6 | 2 | A | 1 | GL | SO | C | FST | 0 | | | VR-2 | | | |
| HV-73 | F-6 | 2 | A | 1 | GA | SO | C | PIT | 2Y | | | | | | |
| HV-74 | D-6 | 2 | A | 1 | GL | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-75 | F-6 | 2 | A | 1 | GA | SO | C | FST | 0 | | | VR-2 | | | |
| HV-76 | D-6 | 2 | A | 1 | GL | SO | C | PIT | 2Y | | | | | | |
| HV-77 | F-6 | 2 | A | 1 | GA | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-78 | D-6 | 2 | A | 1 | GL | SO | C | FST | 0 | | | VR-2 | | | |
| HV-79 | F-6 | 2 | A | 1 | GA | SO | C | PIT | 2Y | | | | | | |
| HV-80 | D-6 | 2 | A | 1 | GL | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-81 | F-6 | 2 | A | 1 | GA | SO | C | FST | 0 | | | VR-2 | | | |
| HV-82 | D-6 | 2 | A | 1 | GL | SO | C | PIT | 2Y | | | | | | |
| HV-83 | F-6 | 2 | A | 1 | GA | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-84 | D-6 | 2 | A | 1 | GL | SO | C | FST | 0 | | | VR-2 | | | |
| HV-85 | F-6 | 2 | A | 1 | GA | SO | C | PIT | 2Y | | | | | | |
| HV-86 | D-6 | 2 | A | 1 | GL | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-87 | F-6 | 2 | A | 1 | GA | SO | C | FST | 0 | | | VR-2 | | | |
| HV-88 | D-6 | 2 | A | 1 | GL | SO | C | PIT | 2Y | | | | | | |
| HV-89 | F-6 | 2 | A | 1 | GA | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-90 | D-6 | 2 | A | 1 | GL | SO | C | FST | 0 | | | VR-2 | | | |
| HV-91 | F-6 | 2 | A | 1 | GA | SO | C | PIT | 2Y | | | | | | |
| HV-92 | D-6 | 2 | A | 1 | GL | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-93 | F-6 | 2 | A | 1 | GA | SO | C | FST | 0 | | | VR-2 | | | |
| HV-94 | D-6 | 2 | A | 1 | GL | SO | C | PIT | 2Y | | | | | | |
| HV-95 | F-6 | 2 | A | 1 | GA | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-96 | D-6 | 2 | A | 1 | GL | SO | C | FST | 0 | | | VR-2 | | | |
| HV-97 | F-6 | 2 | A | 1 | GA | SO | C | PIT | 2Y | | | | | | |
| HV-98 | D-6 | 2 | A | 1 | GL | SO | C | BT-C | 0 | 5 | | VR-1 | | | |
| HV-99 | F-6 | 2 | A | 1 | GA | SO | C | FST | 0 | | | VR-2 | | | |
| HV-100 | D-6 | 2 | A | 1 | GL | SO | C | PIT | 2Y | | | | | | |

..... END REPORT

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

*SYSTEM: HIGH PRESS. COOL. INJ. (EM) UC66 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 ROAT. | TEST FRE | MAX STIRK TIME | MAX LEAKG | RELIEF REQUEST | REMARKS |
|-------------|------------|-----------|---------|------------|------------|----------|----------|------------|----------|----------------|-----------|----------------|-------------|
| 8922A | E-5 | 2 | C | 4 | CK | SA | C | CVT-0 | RR | | | | |
| 8922B | D-5 | 2 | C | 4 | CK | SA | C | CVT-0 | RR | | | VR-12 | |
| 8926A | E-7 | 2 | C | 8 | CK | SA | C | EVP-0 | 0 | | | VR-12 | |
| | | | | | | | | | | | | VR-14 | |
| 8926B | D-7 | 2 | C | 8 | CK | SA | C | CVT-0 | RR | | | | |
| | | | | | | | | | | | | | |
| V-001 | F-3 | 1 | A.C | 2 | CK | SA | C | CVT-0 | RR | | | VR-14 | |
| | | | | | | | | AT-2 | RR | | | VR-6 | |
| V-002 | E-3 | 1 | A.C | 2 | CK | SA | C | CVT-0 | RR | | | VR-12 | |
| | | | | | | | | CVT-C | RR | | | VR-13 | |
| | | | | | | | | AT-2 | RR | | | VR-6 | |
| V-003 | D-3 | 1 | A.C | 2 | CK | SA | C | CVT-0 | RR | | | VR-12 | |
| | | | | | | | | CVT-C | RR | | | VR-13 | |
| | | | | | | | | AT-2 | RR | | | VR-6 | |
| V-004 | C-3 | 1 | A.C | 2 | CK | SA | C | CVT-0 | RR | | | VR-12 | |
| | | | | | | | | CVT-C | RR | | | VR-13 | |
| | | | | | | | | AT-2 | RR | | | VR-6 | |
| V-005 | A-6 | 2 | C | 1.5 | CK | SA | C | CVT-0 | RR | | | VR-12 | |
| V-006 | F-6 | 2 | A.C | 1 | CK | SA | C | CVT-0 | RR | | | VR-13 | |
| V-007 | A-5 | 2 | C | 1.5 | CK | SA | C | CVT-C | RR | | | | |
| HV-8802A | E-4 | 2 | B | 4 | GA | NO | C | CVT-0 | 0 | | | | |
| | | | | | | | | BT-0 | 0 | 10 | | | |
| | | | | | | | | BT-C | 0 | 10 | | | NOTE 36 |
| HV-8802B | D-4 | 2 | B | 4 | GA | NO | C | PIT | 2Y | | | | |
| | | | | | | | | BT-0 | 0 | 10 | | | |
| | | | | | | | | BT-C | 0 | 10 | | | NOTE 36 |
| V-188 | D-6 | 3 | C | .8 | RV | SA | C | PIT | 2Y | | | | |
| V-187 | F-6 | 3 | C | .8 | RV | SA | C | RVT | 5Y | | | | |
| HV-8807A | E-7 | 2 | B | 6 | GA | NO | C | RVT | 5Y | | | | |
| | | | | | | | | BT-0 | 0 | 15 | | | |
| HV-8807B | F-7 | 2 | B | 6 | GA | NO | C | PIT | 2Y | | | | NOTE 36 |
| | | | | | | | | BT-0 | 0 | 15 | | | |
| HV-8814A | D-6 | 2 | B | 1.5 | GL | NO | 0 | PIT | 2Y | | | | NOTE 36 |
| | | | | | | | | BT-C | 0 | 10 | | | |
| HV-8814B | B-5 | 2 | B | 1.5 | GL | NO | 0 | PIT | 2Y | | | | NOTE 36 |
| | | | | | | | | BT-C | 0 | 10 | | | |
| HV-8821A | E-4 | 2 | B | 4 | GA | NO | 0 | PIT | 2Y | | | | NOTE 36 |
| | | | | | | | | BT-C | 0 | 10 | | | |
| HV-8821B | D-4 | 2 | B | 4 | GA | NO | 0 | PIT | 2Y | | | | NOTE 36 |
| | | | | | | | | BT-C | 0 | 10 | | | |
| HV-8823 | C-4 | 2 | B | .75 | GL | AP | C | PIT | 2Y | | | | NOTE 36 |
| | | | | | | | | BT-C | 0 | 10 | | | |
| | | | | | | | | FST | 0 | | | VR-1 | |
| HV-8824 | D-3 | 2 | B | .75 | GL | AP | C | PIT | 2Y | | | | |
| | | | | | | | | BT-C | 0 | 10 | | | VR-1 |
| | | | | | | | | FST | 0 | | | | |
| HV-8835 | B-4 | 2 | B | 4 | GA | NO | 0 | PIT | 2Y | | | | |
| | | | | | | | | BT-0 | CS | 10 | | | |
| | | | | | | | | BT-C | CS | 10 | | | NOTES 30,36 |

| * SYSTEM: HIGH PRESS. COOL. INJ. (EM) | WCCS | INSERVICE | TESTING PROGRAM | DWG. NO.: | M-02EM01 | RELIEF | REMARKS |
|---------------------------------------|-------|-----------|-----------------|-----------|----------|--------|---------|
| * VALVE | PAID | VALVE | ACT | TEST | TEST | MAX | |
| * HI. | CLASS | SIZE | TYPE | ROMT. | FRE | STAK | |
| * HI. | IST | VALVE | ACT | TEST | FRE | TIME | |
| * HI. | CLASS | SIZE | TYPE | ROMT. | FRE | TIME | |
| * HI. | CLASS | SIZE | TYPE | ROMT. | FRE | TIME | |
| HV-8871 | 2 | A | .75 | 6L | 60 | 40 | C |
| HV-8881 | 2 | B | .75 | 6L | 60 | 40 | C |
| HV-8886 | 2 | A | 1 | 5L | 60 | 40 | C |
| HV-8889A | 1 | B | .75 | 6L | 60 | 40 | C |
| HV-8889B | 1 | B | .75 | 6L | 60 | 40 | C |
| HV-8889C | 1 | B | .75 | 6L | 60 | 40 | C |
| HV-8889D | 1 | B | .75 | 6L | 60 | 40 | C |
| HV-8925A | 2 | B | 6 | 6A | 60 | 40 | C |
| HV-8925B | 2 | B | 6 | 6A | 60 | 40 | C |
| HV-8924 | 2 | B | 6 | 6A | 60 | 40 | C |
| HV-8964 | 2 | A | .75 | 6L | 60 | 40 | C |

| TEST | ROMT. | FRE | TEST | TIME | MAX | RELIEF |
|------|-------|-----|------|------|-------|---------|
| PIT | AT-1 | RR | AT-1 | 10 | LEAKG | REQUEST |
| AT-1 | RR | 0 | RR | 10 | LEAKG | REQUEST |
| BT-C | 0 | 0 | BT-C | 10 | LEAKG | REQUEST |
| FST | 0 | 0 | FST | 10 | LEAKG | REQUEST |
| PIT | 2Y | 0 | PIT | 10 | LEAKG | REQUEST |
| BT-C | 0 | 0 | BT-C | 10 | LEAKG | REQUEST |
| FST | 0 | 0 | FST | 10 | LEAKG | REQUEST |
| PIT | 2Y | 0 | PIT | 10 | LEAKG | REQUEST |
| AT-1 | RR | 0 | AT-1 | 10 | LEAKG | REQUEST |
| RR | 0 | 0 | RR | 10 | LEAKG | REQUEST |
| BT-C | 0 | 0 | BT-C | 10 | LEAKG | REQUEST |
| FST | 0 | 0 | FST | 10 | LEAKG | REQUEST |
| PIT | 2Y | 0 | PIT | 10 | LEAKG | REQUEST |
| AT-1 | RR | 0 | AT-1 | 10 | LEAKG | REQUEST |
| RR | 0 | 0 | RR | 10 | LEAKG | REQUEST |
| BT-C | 0 | 0 | BT-C | 10 | LEAKG | REQUEST |
| FST | 0 | 0 | FST | 10 | LEAKG | REQUEST |
| PIT | 2Y | 0 | PIT | 10 | LEAKG | REQUEST |

..... 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-02EM02

| * VALVE NO. | P&ID COOR. | ISI CLASS | IST CAI | VALVE SIZE | VALVE TYPE | ACT TYPE | NORM POS | TEST ROMT. | TEST FRE | MAX STRK TIME | MAX LEAKG | RELIEF REQUEST | REMARKS |
|-------------|------------|-----------|---------|------------|------------|----------|----------|------------|----------|---------------|-----------|----------------|-------------|
| 8815 | D-3 | 1 | A,C | 3 | CK | SA | C | AT-2 | RR | | | | |
| | | | | | | | | CVT-D | RR | | | VR-6 | |
| | | | | | | | | CVT-C | RR | | | VR-13 | |
| 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 | | | | |
| V-241 | B-7 | 2 | C | 1 | CK | SA | D | CVT-D | RR | | | VR-22 | |
| HV-8801A | D-4 | 2 | B | 4 | GA | NO | C | BT-D | CS | 10 | | | NOTES 31,36 |
| | | | | | | | | BT-C | CS | 10 | | | |
| | | | | | | | | PIT | 2Y | | | | |
| HV-8801B | D-4 | 2 | B | 4 | GA | NO | 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 | NO | C | BT-D | CS | 10 | | | NOTES 31,36 |
| | | | | | | | | BT-C | CS | 10 | | | |
| | | | | | | | | PIT | 2Y | | | | |
| HV-8803B | A-7 | 2 | B | 4 | GA | NO | 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 (EM)

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

| * VALVE NO. | P&ID COOR. | ISI CLASS | ISI CAT | VALVE SIZE | VALVE TYPE | ACT TYPE | NORM POS | TEST ROAT. | TEST FRE | MAX STRK TIME | MAX LEAKG | RELIEF REQUEST | REMARKS |
|-------------|------------|-----------|---------|------------|------------|----------|----------|------------|----------|---------------|-----------|----------------|-------------|
| V-002 | G-7 | 2 | C | 12 | CK | SA | C | CVT-0 | RR | | | | |
| V-003 | G-7 | 2 | C | 12 | CK | SA | C | CVP-0 | 0 | | | VR-15 | |
| V-004 | G-5 | 2 | C | 10 | CK | SA | C | CVP-0 | 0 | | | 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 | 0 | | | VR-15 | |
| V-010 | D-5 | 2 | C | 10 | CK | SA | C | CVP-0 | 0 | | | 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 | 0 | 15 | | | |
| * | | | | | | | | BT-C | 0 | 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 | 0 | | | | |
| HV-1 | G-7 | 2 | B | 12 | GA | NO | C | CVT-0 | 0 | | | | |
| * | | | | | | | | RVT | 5Y | | | | |
| HV-6 | D-4 | 2 | B | 10 | GA | NO | C | BT-0 | RR | 30 | | VR-16 | NOTE 36 |
| * | | | | | | | | BT-C | RR | 30 | | | |
| 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 16:15:28 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 RQRT. | 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 | E | 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 NO. | P&ID COOR. | ISI CLASS | IST CAT | VALVE SIZE | VALVE TYPE | ACT TYPE | HORN POS | TEST RMT. | TEST FRE | MAX STRK TIME | MAX LEAKG | REPAIR REQUEST | REMARKS |
| * HV-8808D | B-5 | 2 | B | 10 | GA | MO | D | PIT | 2Y | | | | |
| | | | | | | | | BT-0 | CS | 12 | | | |
| | | | | | | | | BT-C | CS | 12 | | | NOTES 29,36 |
| * HV-8875A | H-6 | 2 | B | 1 | GL | AO | C | PIT | 2Y | | | | |
| * 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 | C-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 | PIT | 2Y | | | | |
| | | | | | | | | BT-0 | RR | 10 | | VR-1 | |
| | | | | | | | | BT-C | RR | 10 | | VR-18 | |
| | | | | | | | | FST | RR | | | | |
| * HV-8950B | F-8 | 2 | B | 1 | GL | SO | C | PIT | 2Y | | | | |
| | | | | | | | | BT-0 | RR | 10 | | VR-1 | |
| | | | | | | | | BT-C | RR | 10 | | VR-18 | |
| | | | | | | | | FST | RR | | | | |
| * HV-8950C | F-7 | 2 | B | 1 | GL | SO | C | PIT | 2Y | | | | |
| | | | | | | | | BT-0 | RR | 10 | | VR-1 | |
| | | | | | | | | BT-C | RR | 10 | | VR-18 | |
| | | | | | | | | FST | RR | | | | |
| * HV-8950D | D-8 | 2 | B | 1 | GL | SO | C | PIT | 2Y | | | | |
| | | | | | | | | BT-0 | RR | 10 | | VR-1 | |
| | | | | | | | | BT-C | RR | 10 | | VR-18 | |
| | | | | | | | | FST | RR | | | | |
| * HV-8950E | D-7 | 2 | B | 1 | GL | SO | C | PIT | 2Y | | | | |
| | | | | | | | | BT-0 | RR | 10 | | VR-1 | |
| | | | | | | | | BT-C | RR | 10 | | VR-18 | |
| | | | | | | | | FST | RR | | | | |
| * HV-8950F | C-8 | 2 | B | 1 | GL | SO | C | PIT | 2Y | | | | |
| | | | | | | | | BT-0 | RR | 10 | | VR-1 | |
| | | | | | | | | BT-C | RR | 10 | | VR-18 | |
| | | | | | | | | FST | RR | | | | |
| * HV-8880 | A-4 | 2 | A | 2 | GL | AO | C | PIT | 2Y | | | | |
| | | | | | | | | AT-1 | RR | | | VR-5 | |
| | | | | | | | | BT-C | D | 10 | | | |
| | | | | | | | | FST | D | | | | |
| | | | | | | | | 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 | O-7 | 3 | B | 1 | 6L | AC | 0 | BT-C | 0 | 5 | | VR-1 VR-2 | |
| HV-312 | F-5 | 3 | B | 4 | 6A | ND | C | PIT | 2Y | 10 | | | NOTE 36 |
| LV-10 | D-6 | 3 | B | 1 | 6L | AD | C | PIT | 2Y | | | | |
| V-999 | E-3 | NC | C | .5 | RV | SA | C | PAS | NA | | | | |
| END REPORT | | | | | | | | | | | | | |

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

*SYSTEM: CONTAINMENT HY. CONT. (GS) WCGS INSERVICE TESTING PROGRAM DWG. NO.: H-026S01

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

| * SYSTEM: CONTAINMENT HT. COHT. (US) | MCSS IN-SERVICE TESTING PROGRAM | DWG. NO.: | R-026S01 | RELIEF REQUEST | REMARKS | | | | | | |
|--------------------------------------|---------------------------------|------------|----------|----------------|------------|----------|---------------|-----------|---|------|---------|
| * VALVE NO. | VALVE SIZE | VALVE TYPE | ACT TYPE | MURR PDS | FEST NOMI. | FEST FRE | MAX STRK TIME | MAX LEAKG | | | |
| * COOR. | CLASS | ISI | ISI CAT | BT | BT-C | RR | RR | RR | | | |
| * F-5 | 2 | A | 6 | BT | BT-C | RR | RR | RR | | | |
| HV-20 | F-4 | 2 | A | 6 | BT | BT-C | RR | RR | 3 | VR-5 | NOTE 36 |
| HV-21 | F-4 | 2 | A | 6 | BT | BT-C | RR | RR | 3 | VR-5 | NOTE 36 |
| HV-30 | E-2 | 2 | B | 1 | GA | SO | RR | RR | 5 | VR-1 | |
| HV-31 | D-4 | 2 | A | 1 | GA | SO | RR | RR | 5 | VR-2 | |
| HV-32 | D-3 | 2 | A | 1 | GA | SO | RR | RR | 5 | VR-3 | |
| HV-33 | C-4 | 2 | A | 1 | GA | SO | RR | RR | 5 | VR-1 | |
| HV-34 | C-4 | 2 | A | 1 | GA | SO | RR | RR | 5 | VR-2 | |
| HV-35 | E-7 | 2 | B | 1 | GA | SG | RR | RR | 5 | VR-3 | |
| HV-36 | D-6 | 2 | A | 6 | GA | SO | RR | RR | 5 | VR-1 | |
| HV-37 | D-7 | 2 | A | 6 | GA | SO | RR | RR | 5 | VR-2 | |
| HV-38 | C-6 | 2 | A | 6 | GA | SO | RR | RR | 5 | VR-3 | |
| HV-39 | C-6 | 2 | A | 6 | GA | SO | RR | RR | 5 | VR-1 | |
| V954 | B-3 | 2 | C | .75 | CK | SA | RR | RR | 5 | VR-2 | |
| V959 | B-8 | 2 | C | .75 | CK | SA | RR | RR | 5 | VR-3 | |

..... END REPORT

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

*SYSTEM: CONTAINMENT PURGE (GT) WCGS INSERVICE TESTING PROGRAM DWG. NO.: M-026T01

| * VALVE NO. | P4TD COOR. | ISE CLASS | ISI CAT | VALVE SIZE | VALVE TYPE | ACT TYPE | NORM POS | TEST RDMT. | TEST FRE | MAX STRK TIME | MAX LEAKG | RELIEF REQUEST | REMARKS |
|-------------|------------|-----------|---------|------------|------------|----------|----------|------------|----------|---------------|-----------|----------------|---------|
| 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 33 08 MAY 84 JEFF

*SYSTEM: LIQUID RADWASTE (HB)

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

| * VALUE * NO. | P&ID COORD. | ISI CLASS | IST CAT | VALUE SIZE | VALUE TYPE | ACT TYPE | FORM POS | TEST RODT. | TEST FRE | MAX STRK TIME | MAX LEAKG | RELIEF REQUEST | REMARKS |
|------------------|----------------|--------------|------------|---------------|---------------|-------------|-------------|---------------|-------------|------------------|--------------|-------------------|---------|
| 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 | 0 | 10 | | VR-5 | |
| * | | | | | | | | FST | 0 | | | | |
| HV-7136 | F-3 | 2 | A | 3 | DIA | A0 | 0 | PIT | 2Y | | | | |
| * | | | | | | | | AT-1 | RR | | | VR-1 | |
| * | | | | | | | | BT-C | 0 | 10 | | VR-5 | |
| * | | | | | | | | FST | 0 | | | | |
| HV-7150 | H-5 | 2 | A | .75 | DIA | A0 | 0 | PIT | 2Y | | | | |
| * | | | | | | | | AT-1 | RR | | | VR-1 | |
| * | | | | | | | | BT-C | 0 | 10 | | VR-5 | |
| * | | | | | | | | FST | 0 | | | | |
| HV-7176 | F-3 | 2 | A | 3 | DIA | A0 | 0 | PIT | 2Y | | | | |
| * | | | | | | | | AT-1 | RR | | | VR-1 | |
| * | | | | | | | | BT-C | 0 | 10 | | VR-5 | |
| * | | | | | | | | FST | 0 | | | | |
| * | | | | | | | | PIT | 2Y | | | | |

..... END REPORT

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

*SYSTEM: DECONTAMINATION (HD)

WCGS INSERVICE TESTING PROGRAM DWG. NO.: A-02HD01

| * VALVE * NO. | P&ID COORD. | ISI CLASS | IST CAT | VALVE SIZE | VALVE TYPE | ACT TYPE | HORN POS | TEST ROMT. | TEST FRL | MAX STRK TIME | MAX LEAKG | RELIEF REQUEST | REMARKS |
|------------------|----------------|--------------|------------|---------------|---------------|-------------|-------------|---------------|-------------|------------------|--------------|-------------------|---------|
| V-016 | B-7 | 2 | A | 2 | GL | H | C | AT-1 | RR | | | VR-5 | |
| V-017 | B-7 | 2 | A | 2 | GL | H | C | AT-1 | RR | | | VR-5 | |

..... END REPORT

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.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 | IST | VALVE | VALVE | ACT | HORN | TEST | TEST | MAX STRK | MAX | RELIEF | REMARKS |
|---------|-------|-------|-----|-------|-------|------|------|-------|------|----------|-------|---------|---------|
| * NU. | COOR. | CLASS | CAT | SIZE | TYPE | TYPE | PCS | RONT. | FRE | TIME | LEAKG | REQUEST | |
| 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)

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

| * VALVE NO. | PRID. COOR. | ISI CLASS | IST CAT | VALVE SIZE | VALVE TYPE | ACT TYPE | NOPR POS | TEST ROHT. | TEST FRE | MAX STRK TIME | MAX LEAKG | RELIEF REQUEST | REMARKS |
|-------------|-------------|-----------|---------|------------|------------|----------|----------|------------|----------|---------------|-----------|----------------|---------|
| V-204 | C-2 | 2 | A,C | 1.5 | CK | SA | 0 | AT-1 | RR | | | VR-3 | |
| FV-29 | B-2 | 2 | A | 2 | GL | AD | 0 | CVI-C | RR | | | VR-5 | |
| * | | | | | | | | AT-1 | RR | | | VR-1 | |
| * | | | | | | | | BT-C | RR | 5 | | VR-2 | |
| * | | | | | | | | FST | RR | | | VR-5 | |
| HV-30 | C-1 | 2 | B | 1.5 | GA | MD | 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-02KA02

| * VALVE NO. | PAID COOR. | ISI CLASS | IST CAT | VALVE SIZE | VALVE TYPE | ACT TYPE | ROHM POS | TEST RONTZ | TEST FRE | MAX STRK T/RE | MAX LEAKG | RELIEF 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)

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

| * VALVE NO. | P2/D 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 |
|-------------|------------|-----------|---------|------------|------------|----------|----------|------------|----------|---------------|-----------|----------------|---------|
| * U-648 | G-6 | 3 | A,C | .75 | CK | SA | C | AT-3 | RR | | | VR-20 | |
| * U-649 | F-5 | 3 | A,C | .75 | CK | SA | C | CVT-C | RR | | | VR-20 | |
| * U-650 | L-6 | 3 | A,C | .75 | CK | SA | C | AT-3 | RR | | | VR-20 | |
| * U-651 | B-5 | 3 | A,C | .75 | CK | SA | C | CVT-C | RR | | | VR-20 | |
| * U-703 | H-7 | 3 | C | .8 | RV | SA | C | AT-3 | RR | | | | |
| * U-704 | F-6 | 3 | C | .8 | RV | SA | C | CVT-C | RR | | | | |
| * U-705 | D-7 | 3 | C | .8 | RV | SA | C | RVT | SY | | | | |
| * U-706 | B-6 | 3 | C | .8 | RV | SA | C | RVT | SY | | | | |

..... END REPORT

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DATE 16 JUN 84 06:39:17 RID 39 08 MAY 84 JEFF
SYSTEM: CONTINENT BREATH. AIR (KB) WCGS (HSERVICE TESTING PROGRAM DND, HD.: M-12KB01
* VALVE P2ID ISI VALVE SIZE CAT IST VALVE TYPE ACT POS ROHT. TEST FRE TEST FRE TEST FRE
* HO. COOR. CLASS 2 2 6 2 2 6L N N 61-1 61-1 CA RR
U-001 E-3 2 2 6 2 2 6L N N 61-1 61-1 CA RR
U-002 E-4 2 2 6 2 2 6L N N 61-1 61-1 CA RR
..... END REPORT .....
=====
MAX LEAKG RELIEF REQUEST REMARKS
=====
UR-5
VR-5

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DATE 16 JUN 84 06:39:46 RID 40 03 MAY 84 JEFF
SYSTEM: FIRE PROTECTION (KC)
* VALVE P&ID ISI CLASS CAT SIZE VALVE TYPE ACT NORM TESTING PROGRAM DMG. NO.: N-02K02
* NO. COOR. ***** IST VALVE VALVE ACT TYPE TYPE TYPE ***** TEST TEST *****
V-478 B-6 2 2 A.C 4 4 EK SA C C AT-1 RR RR RR
HV-253 B-6 2 2 A 4 4 GA MD C C CVT-C AT-1 BI-C PIT
* * * * * ***** EMD REPORT *****
RELIEF REQUEST REMARKS
VR-3
VR-5
VR-5
NOTE 36
30
2Y

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DATE 16 JUL 84 06:43:03 RID 41 06 MAY 84 JEFF
 * STAFF: STANDBY DIESEL GEN. (KJ) WLOS INSERVICE TESTING PROGRAM DMG. NO.: M-02KJ01
 * VALVE P&ID 151 VALVE VALVE ACT HORA TEST TEST MAX STRK MAX LEAKG RELIEF
 * HO. COUR. CLASS CAT SIZE TYPE TYPE POS RUMI. FRE FRE TIME TIME REQUEST
 * HV-1 0-6 3 B 1 1 GA 00 0 0 0 0 12
 * END REPORT
 * NOTE 35

DATE 16 JUL 84 06:44:54 RID 50 16 MAY 84 JEFF
 *SYSTEM: STANDBY DIESEL GEN. (KJ) MCRS INSERVICE TESTING PROGRAM DMG. NO.: M-02KJ02

| * VALVE | VALVE | VALVE | VALVE | ACT | HRH | TEST | TEST | TEST | MAX | RELIEF | REMARKS |
|---------|-------|-------|-------|-------|-------|------|------|-------|------|---------|---------|
| * NO. | CUOR. | CLASS | IST | VALVE | VALVE | ACT | HRH | TEST | STRK | REQUEST | |
| | | | CAT | SIZE | TYPE | TYPE | POS | ROUT. | TIME | | |
| V-712A | D-5 | 3 | A.C | .75 | CK | SA | C | AT-5 | | VR-21 | |
| V-711A | B-2 | 3 | A.C | .75 | CK | SA | C | CVT-C | | VR-21 | |
| PO-1A | F-3 | 3 | B | .4 | 6L | 50 | C | CVT-C | 5 | VR-1 | NOTE 35 |
| PV-1B | F-3 | 3 | B | .4 | 6L | 50 | C | BT-0 | 5 | VR-1 | NOTE 35 |

..... END REPORT

.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 | F&ID | ISI | IST | VALVE | VALVE | ACT | NOHN | TEST | TEST | MAX STRK | MAX | RELIEF | REMARKS |
|---------|-------|-------|-----|-------|-------|------|------|-------|------|----------|-------|---------|---------|
| * NO. | COOR. | CLASS | CAT | SIZE | TYPE | TYPE | POS | ROHT. | FRE | TIME | LEAKG | REQUEST | |
| HV-2 | A-6 | S | B | 1 | GA | RO | 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 IN SERVICE TESTING PROGRAM DWG. NO.: M-02K.004

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

..... END REPORT

| * VALVE NO. | * COOR. | * CLASS | * IST CAT | * VALVE SIZE | * INSERVE TYPE | * ACT TYPE | * NORM POS | * TESTING PROGRAM | * Dwg. NO. | * TEST FRE | * MAX STRK TIME | * MAX LEAKG | * RELIEF REQUEST | * REMARKS | |
|-------------|---------|---------|-----------|--------------|----------------|------------|------------|--------------------|----------------|----------------|-----------------|-------------|------------------|-----------|--|
| PV-101A | F-3 | 3 | B | .4 | GL | SO | C | BT-0 FST FIT | CS CS 27 | CS CS 27 | 5 | | VR-1 VR-2 | NOTE 35 | |
| PV-101B | F-3 | 3 | B | .4 | BL | SO | C | BT-0 FST FIT | CS CS 27 | CS CS 27 | 5 | | VR-1 VR-2 | NOTE 35 | |
| U-711B | B-2 | 3 | A.C | .75 | CK | SA | C | AT-3 CVT-C | RR RR | RR RR | | | | | |
| U-712B | D-5 | 3 | A.C | .75 | CK | SA | C | AT-3 CVT-C | RR RR | RR RR | | | | | |

..... END REPORT

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DATE 16 JUL 84 06:44:28 RID 44 08 MAY 84 JEFF
*SYSTEM: STANDBY DIESEL GEN. (KJ) MCGS INSERVICE TESTING PROGRAM DWG. NO.: M-02KJ06
* VALVE PAID IST VALVE SIZE VALVE TYPE ACT ROER TEST TEST TIME MAX STRK MAX LEAKG RELIEF REQUEST REMARKS
* NO. FOUR CLASS CAT B 1 1 6A 0 0 8T-C 0 1.2
HU-102
* ..... END REPORT .....
NOTE 36

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DATE 16 JUL 84 06:55:52 RID 52 16 MAY 84 JEFF
SYSTEM: FLOOR AND EQUIP. DRAINS (LF) WJSS INSERVICE TESTING PROGRAM
* VALVE ISI VALVE VALVE ACT HOKB TEST TEST TEST TEST TEST
* MO. CLASS CAT SIZE TYPE TYPE TYPE TYPE TYPE TYPE TYPE TYPE
HV-105 C-3 3 B 6 6A 60 0 0 0 0 0 0 0 0 0 0 0 0 0 0
NOTE 36
* HV-106 C-4 3 B 6 6A 60 0 0 0 0 0 0 0 0 0 0 0 0 0 0
NOTE 36

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

..... END REPORT

| DATE | HR | VALVE | CLASS | IST | VALVE SIZE | VALVE TYPE | ACT TYPE | MOORN | TEST ROOM | TEST | HO | RELIEF REQUEST | REMARKS |
|----------|----|-------|-------|-----|------------|------------|----------|-------|-----------|------|----------|----------------|---------|
| 06-07-16 | 46 | F-7 | 2 | A | 1 | GL | SO | C | AT-1 | RR | N-925.01 | VR-1 | |
| | | | | | | | | | BT-C | 0 | | VR-2 | |
| | | | | | | | | | FST | 0 | | VR-5 | |
| | | | | | | | | | PII | 2Y | | | |
| | | | | | | | | | AT-1 | RR | | VR-1 | |
| | | | | | | | | | BT-C | 0 | | VR-2 | |
| | | | | | | | | | FST | 0 | | VR-5 | |
| | | | | | | | | | PII | 2Y | | | |
| | | | | | | | | | AT-1 | RR | | VR-1 | |
| | | | | | | | | | BT-C | 0 | | VR-2 | |
| | | | | | | | | | FST | 0 | | VR-5 | |
| | | | | | | | | | PII | 2Y | | | |
| | | | | | | | | | AT-1 | RR | | VR-1 | |
| | | | | | | | | | BT-C | 0 | | VR-2 | |
| | | | | | | | | | FST | 0 | | VR-5 | |
| | | | | | | | | | PII | 2Y | | | |

..... EMD REPORT

| DATE | TIME | RID | 47 | 08 MAY 84 | JEFF | WGRS | INSERVICE | TESTING | PROGRAM | DMG. | HD.: | M-025J04 | MAX STRK | MAX | RELIEF | REMARKS |
|----------|----------|-----------|------|-----------|-------|-------|-----------|---------|---------|------|------|----------|----------|---------|--------|---------|
| *SYSTEM: | *NUCLEAR | *SAMPLING | (EJ) | IST | VALVE | VALVE | ACT | HR | TEST | TEST | TEST | TIME | LEAKG | REQUEST | | |
| *RD. | COORD. | CLASS | CAT | SIZE | TYPE | TYPE | TYPE | POS | ROBT. | FR | FR | | | | | |
| U-100 | H-4 | 2 | C | 1 | CK | SA | SA | C | PAS | NA | NA | | | VR-3 | | |
| U-101 | G-7 | 2 | C | 1 | CK | SA | SA | C | PAS | NA | NA | | | VR-5 | | |
| U-111 | G-7 | 2 | A,C | 1 | CK | SA | SA | C | AT-1 | RR | RR | | | | | |
| U-116 | F-5 | 2 | C | 1 | CK | SA | SA | C | CY1-C | RR | RR | | | | | |
| HV-3 | F-7 | 2 | B | 1 | GL | SO | SO | C | PAS | NA | NA | | | | | |
| HV-4 | H-7 | 2 | B | 1 | GL | SO | SO | C | PAS | NA | NA | | | | | |
| HV-5 | F-6 | 2 | A | 1 | GL | SO | SO | 0 | AT-1 | RR | RR | | | | | |
| | | | | | | | | | BT-C | 0 | 0 | 5 | | VR-1 | | |
| | | | | | | | | | FST | 0 | 0 | | | VR-2 | | |
| HV-6 | F-6 | 2 | A | 1 | GL | SO | SO | 0 | PIT | 2Y | 2Y | | | VR-5 | | |
| | | | | | | | | | AT-1 | RR | RR | | | | | |
| | | | | | | | | | BT-C | 0 | 0 | 5 | | | | |
| HV-20 | G-7 | 2 | B | 1 | GL | SO | SO | C | PIT | 2Y | 2Y | | | | | |
| HV-127 | F-6 | 2 | A | 1 | GL | SO | SO | C | PAS | NA | NA | | | | | |
| | | | | | | | | | AT-1 | RR | RR | | | | | |
| | | | | | | | | | BT-C | 0 | 0 | 5 | | VR-1 | | |
| HV-128 | H-6 | 2 | A | 1 | GL | SO | SO | 0 | FST | 0 | 0 | | | VR-2 | | |
| | | | | | | | | | PIT | 2Y | 2Y | | | VR-5 | | |
| | | | | | | | | | AT-1 | RR | RR | | | | | |
| | | | | | | | | | BT-C | 0 | 0 | 5 | | | | |
| HV-129 | H-5 | 2 | A | 1 | GL | SO | SO | 0 | FST | 0 | 0 | | | | | |
| | | | | | | | | | PIT | 2Y | 2Y | | | | | |
| | | | | | | | | | AT-1 | RR | RR | | | | | |
| | | | | | | | | | BT-C | 0 | 0 | 5 | | | | |
| HV-130 | G-5 | 2 | A | 1 | GL | SO | SO | C | FST | 0 | 0 | | | | | |
| | | | | | | | | | PIT | 2Y | 2Y | | | | | |
| | | | | | | | | | AT-1 | RR | RR | | | | | |
| | | | | | | | | | BT-C | 0 | 0 | 5 | | | | |
| HV-131 | B-6 | 2 | A | 1 | GL | SO | SO | C | FST | 0 | 0 | | | | | |
| | | | | | | | | | PIT | 2Y | 2Y | | | | | |
| | | | | | | | | | AT-1 | RR | RR | | | | | |
| | | | | | | | | | BT-C | 0 | 0 | 5 | | | | |
| HV-132 | A-6 | 2 | A | 1 | GL | SO | SO | C | FST | 0 | 0 | | | | | |
| | | | | | | | | | PIT | 2Y | 2Y | | | | | |
| | | | | | | | | | AT-1 | RR | RR | | | | | |
| | | | | | | | | | BT-C | 0 | 0 | 5 | | | | |
| HV-133 | F-4 | 2 | B | 1 | GL | SO | SO | 0 | FST | 0 | 0 | | | | | |
| | | | | | | | | | PIT | 2Y | 2Y | | | | | |
| | | | | | | | | | AT-1 | RR | RR | | | | | |
| | | | | | | | | | BT-C | 0 | 0 | 5 | | | | |

..... 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 NV-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.

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