FLORIDA POWER and LIGHT COMPANY
NUCLEAR ENERGY SERVICES
700 Universe Blvd.
Juno Beach, Florida 33408

SECOND TEN-YEAR INSERVICE INSPECTION INTERVAL INSERVICE TESTING PROGRAM

FOR

PUMPS AND VALVES

TURKEY POINT NUCLEAR POWER PLANT
UNIT NO. 3/4
P.O. BOX 3088
FLORIDA CITY, FLORIDA 33034

COMMERCIAL SERVICE DATE: PTN-3 DECEMBER 14, 1972

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RECORD OF REVISION

REV. NO.	CHANGE NUMBER	DESCRIPTION OF REVISION REASON FOR THE CHANGE	DATE REVISED	APPROVALS
0		ORIGINAL ISSUE OF PTN3/4 IST PUMP & VALVE PROGRAM	06-01-85	
1		TURKEY POINT PLANT, UNIT 3/4, PUMP AND VALVE TESTING PROGRAM	12-12-88	
	A	MODIFIED RELIEF REQUEST NO. 11 PAGE 60.	08-17-89	
		MODIFIED RELIEF REQUEST NO. 5 PAGE 132	08-17-89	

ABSTRACT

This document describes the bases and plans for the second TEN-YEAR INSERVICE TESTING PUMP & VALVE PROGRAM for Turkey Point Plant Unit No. 3/4. This program addresses the requirements of the ASME Boiler and Pressure Vessel Code, Section XI, 1980 Edition through the Winter 1981 Addenda, and subject to the limitations and modifications as stated in 10 CFR 50.55a (b) (2) (i).

Additional requirements for Augmented Testing are also addressed. This program contains Tables identifying all items subject to Inservice Testing for the second inservice inspection interval.

ABBREVIATIONS

LISTED BELOW ARE THE ABBREVIATIONS UTILIZED IN THIS DOCUMENT:

A/O	AIR OPERATOR
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
B&PV	BOILER AND PRESSURE VESSEL CODE
BUTFY	BUTTERFLY
CFR	CODE OF FEDERAL REGULATIONS
CS	CONTAINMENT SPRAY
DIAPH	DIAPHRAGM
FO	FAIL OPEN
FC	FAIL CLOSE
FAI	FAIL AS IS
FP&L	FLORIDA POWER AND LIGHT COMPANY
FSAR	FINAL SAFETY ANALYSIS REPORT
HHSI	HIGH HEAD SAFETY INJECTION
ISI	INSERVICE INSPECTION
IST	INSERVICE TESTING
JNS	JUNO NUCLEAR ENERGY SERVICES
LC	LOCKED CLOSED
LO	LOCKED OPEN
LPSI	LOW PRESSURE SAFETY INJECTION
MCI	MATERIALS, CODES AND INSPECTIONS
MFW	MAIN FEEDWATER SYSTEM
MO	ELECTRIC MOTOR OPERATOR
MS	MAIN STEAM SYSTEM
MSIV	MAIN STEAM ISOLATION VALVE

[illegible]

ABBREVIATIONS

NC	NORMALLY CLOSED
N/A	NOT APPLICABLE
NDE	NONDESTRUCTIVE EXAMINATION
NRC	NUCLEAR REGULATORY COMMISSION
NO	NORMALLY OPEN
P&ID	PIPING AND INSTRUMENTATION DIAGRAM
PS	PLANT SUPPORT
PSI	PRESERVICE INSPECTION
PTN-3/4	TURKEY POINT PLANT UNIT NO. 3/4
RC	REACTOR COOLANT SYSTEM
RCPB	REACTOR COOLANT PRESSURE BOUNDARY
RCS	MAIN REACTOR COOLANT SYSTEM
SAFE	SAFETY VALVE/RELIEF VALVE
SIS	SAFETY INJECTION SYSTEM
S/CHK	STOP CHECK
SO	SOLENOID OPERATOR
S/A, SA OR SELF	SELF ACTUATED
VT	VISUAL TESTING (EXAMINATION)

[illegible]

DEFINITIONS

ACTIVE VALVES - valves which are required to change position to accomplish a specific function

COLD SHUTDOWN - is when the Reactor Coolant system reaches Mode (5) five and the Reactor Coolant system temperature is less than 200 degrees F.

EXERCISING - the demonstration based on direct or indirect visual or other positive indication that the moving parts of a valve function satisfactorily.

EO - EXERCISE VALVE OPEN
EC - EXERCISE VALVE CLOSED
SLT - SEAT LEAKAGE TESTING
FS - FAIL-SAFE DEMONSTRATION (IWV-3415)
V - VALVE POSITION INDICATOR VERIFICATION IWV-3300
INSP - DISASSEMBLE AND INSPECT VALVE INTERNALS FOR FREEDOM OF MOVEMENT
TF - SAFETY AND RELIEF VALVE TESTS (SEE APPLICABLE SETPOINTS PAGE 42 OF PROGRAM)

FULL STROKE - Is the valve stem or disk movement to the position required (to open or to close) to fulfill its function.

INSERVICE LIFE - the period of time from installation and acceptance until retired from service

INSERVICE TEST - a special test to obtain information through measurement or observation to determine the operational readiness of a pump or valve. These tests are not designed to establish complete pump performance.

MAINTENANCE - routine valve servicing or work on a valve undertaken to correct or prevent an abnormal or unsatisfactory condition.

NORMAL PLANT OPERATION - the conditions of startup, hot shutdown, operation within the normal power range, or cooldown and shutdown of the power plant.

OPERATIONAL READINESS - the capability of a pump or valve to fulfill its function

PASSIVE VALVE - valves which are not required to change position to accomplish a specific function

[illegible]

DEFINITIONS

REFERENCE VALUES	- are defined as one or more fixed sets of values of the quantities as shown in Figure No. 2.1 as measured or observed when the equipment is known to be operating acceptably.
ROUTINE SERVICING	- the performance of planned, preventive maintenance which does not require disassembly of the pump or replacement of the pump parts, such as changing oil, flushing the cooling system, adjusting packing, adding packing rings, or mechanical seal maintenance.
SYSTEM RESISTANCE	- the hydraulic resistance to flow in a system
TEST FREQUENCY	- The frequency of test associated with each pump or valve. 1. REFUELING SHUTDOWN 2. COLD SHUTDOWN 3. OPERATION EVERY 3 MONTHS 4. COLD SHUTDOWN WHEN THE REACTOR COOLANT SYSTEM IS DEPRESSURIZED AND VENTED 5. AT LEAST ONCE EVERY TWO YEARS 6. PRIOR TO RETURN TO SERVICE (IWV-3416) 7. ONCE EVERY 10 YEARS 8. IN ACCORDANCE WITH TABLE IWV-3510-1
VALVE CATEGORIES	- see valve text for definitions of category A, B, C and D valves

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1.0 INTRODUCTION

1.1 PROGRAM APPLICABILITY

This document details the Florida Power & Light Inservice Testing Program for the SECOND Ten - Year Inservice Inspection Interval for Turkey Point Nuclear Power Plant, Unit No. 3/4.

1.1.1 TURKEY POINT UNIT NO. 3

1.1.1.1 OPERATING LICENSE

The operating License for Turkey Point Unit no. 3 was issued on July 19, 1972, and Florida Power and Light Company is the owner of record.

1.1.1.2 AMENDMENT

Amendment no. 119 to Operating License no. DPR-31 was submitted on April 2, 1984 and supplemented on April 18, 1984, October 11, 1985, and February 21, 1986, in accordance with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I.

1.1.1.3 NRC APPROVAL

This amendment was approved by letter dated October 27, 1986 to change Technical Specifications to reflect revised Inservice Inspection (ISI) programs.

1.1.2 TURKEY POINT UNIT NO. 4

1.1.2.1 OPERATING LICENSE

The operating License for Turkey Point Unit No. 4 was issued on April 10, 1973, and Florida Power and Light Company is the owner of record.

1.1.2.2 AMENDMENT

Amendment no. 113 to Operating License no. DPR-41 was submitted on April 2, 1984 and supplemented on April 18, 1984, October 11, 1985, and February 21, 1986, in accordance with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I.

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1.1.2.3 NRC APPROVAL

This amendment was approved by letter dated October 27, 1986 to change Technical Specifications to reflect revised Inservice Inspection (ISI) programs.

1.2 INSPECTION INTERVALS

1.2.1 FIRST INSERVICE INSPECTION INTERVAL

1.2.1.1 TURKEY POINT UNIT 3

The First Inservice Inspection Interval became effective on December 14, 1972 and was scheduled to end on December 13, 1982.

1.2.1.2 TURKEY POINT UNIT 4

The First Inservice Inspection Interval became effective on September 7, 1973 and was scheduled to end on September 6, 1983.

1.2.2 FIRST INSPECTION INTERVAL EXTENSION

1.2.2.1 TURKEY POINT UNIT 3

The First Inservice Inspection Interval was extended from December 14, 1982 to February 22, 1984 due to the Turkey Point Unit No. 3 Steam Generator Repair and Replacement Activity.

Request for extension was submitted to the Nuclear Regulatory Commission on October 3, 1983, and was approved on March 1, 1984.

1.2.2.2 TURKEY POINT UNIT 4

The First Inservice Inspection Interval was extended from September 7, 1983 to April 15, 1984 due to the Turkey Point Unit No. 4 Steam Generator Repair and Replacement Activity.

Request for extension was submitted to the Nuclear Regulatory Commission on October 3, 1983, and was approved on March 1, 1984.

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1.2.3 SECOND INSERVICE INSPECTION INTERVAL

1.2.3.1 TURKEY POINT UNIT NO. 3

The Second Inservice Inspection Interval became effective on February 22, 1984 and ends on February 21, 1994.

1.2.3.2 TURKEY POINT UNIT NO. 4

The Second Inservice Inspection Interval became effective on April 15, 1984, and ends on April 14, 1994.

1.3 APPLICABLE DOCUMENTS

The Inservice Testing Program for Class 1, 2 and 3 Pumps and Valves was developed after giving due consideration to the following documents:

- 10 CFR 50.55a CODE OF FEDERAL REGULATIONS
- ASME BOILER AND PRESSURE VESSEL CODE, SECTION XI, 1980 EDITION THROUGH THE WINTER 1981 ADDENDA, "RULES FOR INSERVICE INSPECTION OF NUCLEAR POWER PLANT COMPONENTS"
- U. S. NUCLEAR REGULATORY GUIDE
- 1.26 QUALITY GROUP CLASSIFICATIONS AND STANDARDS FOR WATER-, STEAM, AND RADIOACTIVE -WASTE - CONTAINING COMPONENTS OF NUCLEAR POWER PLANTS.
- 1.68 PREOPERATIONAL TEST PROGRAM
- Turkey Point Unit. 3/4 FINAL SAFETY ANALYSIS REPORT
- TURKEY POINT PLANT UNIT NO. 3 TECHNICAL SPECIFICATIONS, DOCKET NO. 50-250
- TURKEY POINT PLANT UNIT NO. 4 TECHNICAL SPECIFICATIONS, DOCKET NO. 50-251

1.4 APPLICABLE EDITIONS AND ADDENDA TO SECTION XI

1.4.1 FIRST INSERVICE INSPECTION INTERVAL

The First Ten - Year Inservice Inspection Interval was conducted in accordance with the 1970 Edition through the Winter 1970 Addenda, and then updated to the 1974 Edition through the Summer 1975 Addenda of Section XI of the ASME Boiler and Pressure Vessel Code.

1.4.2 SECOND INSERVICE INSPECTION INTERVAL

As required by Title 10 of the Code of Federal Regulations paragraph 55 a (g) (4) Inservice Inspections requirements applicable to inservice testing of Pumps and Valves at Turkey Point Unit 3/4 are based on the rules set forth in the 1980 Edition of Section XI through the Winter 1981 Addenda, hereafter referred to as the Code. (SEE NOTE AT BOTTOM OF PAGE)

1.5 SUBSEQUENT CODE EDITIONS AND ADDENDA

As permitted by 10 CFR 50.55a (g) (4) (iv) Florida Power and Light (FPL) may elect to meet the requirements set forth in subsequent Editions and Addenda that are incorporated by reference into 10 CFR 50.55a (b) (2) subject to the Nuclear Regulatory Commission (NRC) approval.

Portions of Editions and Addenda may also be used provided that all related requirements of the respective Editions and Addenda are met. FP&L intends to continually evaluate and apply, as appropriate, changes in adopted Code Editions and Addenda which assure the Quality and Safety of the Turkey Point Nuclear Power Plant.

1.6 SYSTEM CLASSIFICATIONS

The system classification used as the basis for the Inservice Test Program are based on the requirements of 10 CFR 50 and Regulatory Guide 1.26.

1.6.1 Class 1 system boundaries are developed based on 10 CFR 50.2 (v) of the Code of Federal Regulations.

1.6.2 Class 2 and 3 system boundaries are developed based on Regulatory Guide 1.26 and the PTN-3/4 Final Safety Analysis Report.

NOTE: FPL submitted proposed Inservice Inspection and Testing Programs and requests for relief on October 27, 1982, March 7, 1983, June 30, 1983, March 30, 1984, April 2 and 18, 1984, July 26, 1984, September 14, 1984, October 24 and 25, 1984 and November 20, 1984.

On February 4, 1985 The NRC sent a interm approval for implementation of submitted programs. After this FPL submitted additional correspondence on May 20 and 31, 1985, December 26, 1985, August 20, 1986, March 2, 1987, June 5, 1987 and November 10, 1987.

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- Reference TAC Nos. 49133, 49936, 54677, 54678, 54973 and 54974.

2.0 DEVELOPMENT OF THE INSERVICE PUMP TEST PROGRAM

Following is the detailed description of the Testing Program outline for all pumps to be tested:

2.1 PUMP PROGRAM IWP-1100

The Pump test program shall be conducted in accordance with article IWP of the ASME Code, except where specific Relief is requested in accordance with 10 CFR 50.55a (g) (5) (iii).

Class 1, 2 and 3 centrifugal and positive displacement type pumps requiring inservice testing at Turkey Point are classified as those pumps required to perform a specific function in shutting down a reactor or in mitigating the consequences of an accident, and that are provided with an emergency power source.

The results of these tests are to be used in assessing operational readiness of the pumps during their service life.

NOTE: On October 24, 1984 FPL submitted document number L-84-238 which added additional components to the Pump and Valve Test Program. These components where added based on negotiations between FPL and the NRC.

2.1.1 PUMPS EXEMPT FROM TESTING IWP-1200

(a) Drivers are excluded from the requirements of IWP, except where the pump and driver form an integral unit and the pump bearings are in the driver.

(b) Class 1, 2, and 3 pumps that are supplied with emergency power solely for operating convenience are excluded.

2.1.2 IWP-1400 BYPASS LOOPS

Where a pump cannot practically be tested in its regular circuit, a bypass loop may be used.

2.1.3 INSERVICE TEST IWP-3100

An Inservice test shall be conducted with the pump operating at nominal motor nameplate speed for constant speed drives and at a speed adjusted to the reference speed for variable speed drives. The resistance of the system shall be varied until either the measured

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differential pressure or the measured flow rate equals the corresponding reference value. The test quantities shown in Table No. 2.1 shall then be measured or observed and recorded. Each measured test quantity shall then be compared with the reference value of the same quantity.

Any deviations determined shall be compared with the limits given in Table No. 2.2 and the specified corrective action taken.

2.1.4 REFERENCE VALUES IWP-3110

Reference values are defined as one or more fixed sets of values of the quantities shown in Table 2.1 as measured or observed when the equipment is known to be operating acceptably. All subsequent test results shall be compared to the reference values or with new reference values established in accordance with 2.1.5 or 2.1.8. Reference values shall be determined from the results of an inservice test which may be run during preoperational testing, or from the results of the first inservice test run during power operation. Reference values shall be at points of operation readily duplicated during subsequent inservice testing.

2.1.5 EFFECT of PUMP REPLACEMENT, REPAIR, AND ROUTINE SERVICING ON REFERENCE VALUES IWP-3111

2.1.5.1 REPLACED PUMPS

After a pump has been replaced, a new set or sets of reference values shall be determined from the results of the first inservice test run after the pump is put into service.

2.1.5.2 REPAIRED PUMPS

When a reference value or set of values may have been affected by repair, a new reference value or set of values shall be determined or the previous value reconfirmed by an inservice test run prior to, or within 96 hours after, return of the pump to normal service.

2.1.6 ROUTINE SERVICING OF PUMPS

When a reference value or set of values may have been affected by routine servicing of the pump, a new reference value or set of values shall be determined or the previous value reconfirmed by an inservice test run prior to,

[illegible]

or within 96 hours after, return of the pump to normal service.

2.1.7 DEVIATIONS

Deviations between the previous and new set of reference values shall be identified, and verification that the new values represent acceptable pump operation shall be placed in the record of tests.

2.1.8 ESTABLISHING ADDITIONAL SET OF REFERENCE VALUES IWP-3112

When necessary or when desirable for reasons other than those stated in 2.1.5 to establish an additional set of reference values, an inservice test shall first be run at the conditions of an existing set of reference values and the results analyzed. If operation is satisfactory, a second test run at the new reference conditions shall follow as soon as practical. The results of the test shall establish the additional set of reference values.
Whenever an additional set of reference values is established, the reason for so doing shall be justified and documented in the record of tests.

2.2 ANALYSIS OF RESULTS IWP-3200

2.2.1 ALLOWABLE RANGES OF INSERVICE TEST QUANTITIES IWP-3210

The allowable ranges of inservice test quantities in relation to the reference values are tabulated in Table. No. 2.2. If these ranges can not be met, FPL shall specify in the record of tests the reduced range limits to allow the pump to fulfill its function, and those limits shall be used in lieu of the ranges given in Table No. 2.2.

TABLE NO. 2.1

INSERVICE TEST QUANTITIES

REFERENCE IWP-3100-1

QUANTITY	MEASURE	OBSERVE
SPEED N (IF VARIABLE SPEED)	X	...
INLET PRESSURE P_i	X1	...
DIFFERENTIAL PRESSURE ΔP	X	...
FLOW RATE Q	X	...
VIBRATION AMPLITUDE V	X	...
PROPER LUBRICANT LEVEL OR PRESSURE		...X
BEARING TEMPERATURE T_b	X	...

NOTE:

1 MEASURE BEFORE PUMP STARTUP AND DURING TEST.

TABLE NO. 2.2
ALLOWABLE RANGES OF TEST QUANTITIES
IWP-3100-2

TEST QUANITY	ACCEPTABLE RANGE	ALERT RANGE[3] LOW VALUES	ALERT RANGE[3] HIGH VALUES	REQUIRED ACTION RANGE[3] LOW VALUES	REQUIRED ACTION RANGE[3] HIGH VALUES
P_i (NOTE (1))	...	...	...	...	...
ΔP	0.93 TO 1.02 ΔP_r	0.90 TO 0.93 ΔP_r	1.02 TO 1.03 ΔP_r	<0.90 ΔP_r	>1.03 ΔP_r
Q	0.94 TO 1.02 Q_r	0.90 TO 0.94 Q_r	1.02 TO 1.03 Q_r	<0.90 Q_r	>1.03 Q_r
V, WHEN $0 \le V_r \le 0.5$ MIL	0 TO 1 MIL	NONE	1 TO 1.5 MIL	NONE	>1.5 MIL
V, WHEN 0.5 MIL $< V_r \le$ 2.0 MIL	0 TO $2V_r$ MIL	NONE	$2V_r$ MIL TO $3V_r$ MIL	NONE	>$3V_r$ MIL
V, WHEN 2.0 MIL $< V_r \le$ 5.0 MIL	0 TO $(2+V_r)$ MIL	NONE	$(2+V_r)$ MIL TO $(4+V_r)$ MIL	NONE	>$(4+V_r)$ MIL
V, WHEN $V_r >$ 5.0 MIL	0 TO $1.4V_r$ MIL	NONE	$1.4V_r$ MIL TO $1.8V_r$ MIL	NONE	>$1.8V_r$ MIL
T_b (NOTE (2))	...	...	...	...	...

NOTES:

(1) P_i SHALL BE WITHIN THE LIMITS SPECIFIED BY THE OWNER IN RECORD OF TESTS (IWP-6000)

(2) T_b SHALL BE WITHIN THE LIMITS SPECIFIED BY THE OWNER IN RECORD OF TESTS (IWP-6000)

(3) SEE IWP-3230

2.2.2 ANALYSIS OF TESTS IWP-3220

All test data shall be analyzed within 96 hours after completion of a test.

2.3 CORRECTIVE ACTION IWP-3230

2.3.1 ALERT RANGE

If deviations fall within the ALERT RANGE of Table No. 2.2, the frequency of testing specified in paragraph 2.5 shall be doubled until the cause of the deviation is determined and the conditions corrected inaccordance with 2.3.3.

2.3.2 REQUIRED ACTION RANGE

If deviations fall within the REQUIRED ACTION RANGE of Table No. 2.2, the pump shall be declared inoperative and not returned to service until the cause of the deviation has been determined and the conditions corrected in accordance with 2.3.3.

2.3.3 CORRECTIVE ACTION

Correction shall be either replacement or repair per paragraph 2.1.5, or shall be an analysis to demonstrate that the condition does not impair pump operability and that the pump will still fulfill its function.A new set of reference values shall be established after such analysis.

When a test shows deviations greater than allowed by Table No. 2.2, the instruments involved may be calibrated and the test rerun.

2.4 SCOPE OF TESTS IWP-3300

Each inservice test shall include the measurement and observation of all quantities in Table No. 2.1 except bearing temperature, which shall be measured during at least one inservice test each year.

2.5 FREQUENCY OF TEST IWP-3400

An inservice test shall be run on each pump nominally every three (3) months during normal plant operation. Although not mandatory FPL will maintain the test frequency during shutdown periods, provided these tests can be reasonably be accomplished.

If these tests can not be accomplished during plant shutdowns, The pump will be tested within one (1) week after the plant is returned to normal operation.

Pumps that are operated more frequently than every three (3) months need not be run or stopped for a special test, provided the plant log shows each such pump was operated at least every three (3) months at the reference conditions and the quantities specified were measured, observed, recorded and analyzed.

2.6 DURATION OF TEST IWP-3500

When measurement of bearing temperature is not required, each pump shall be run at least five (5) minutes under conditions as stable as the system permits. At the end of this time at least one measurement or observation of each of the quantities specified shall be made and recorded.

When measurement of bearing temperature is required, each pump shall be run until the bearing temperatures stabilize, and then the quantities specified shall be measured or observed and recorded.

A bearing temperature shall be considered stable when three successive readings taken at ten (10) minutes intervals do not vary more than 3%.

2.7 DIFFERENTIAL PRESSURE IWP-4240

The differential pressure across a pump shall be determined by use either of a differential pressure gage or a differential pressure transmitter that provides direct measurement of pressure difference, or by taking the difference between the pressure at a point in the inlet pipe and the pressure at a point in the discharge pipe.

2.8 FLOW MEASUREMENTS IWP-4600

Flow rate shall be measured using a rate or quantity meter installed in the pump test circuit. The meter may be in any class that provides an overall readout repeatability within the accuracy limits of Table 2.3. Where the meter does not indicate the flow rate directly, the record shall include the method used to reduce the data.

TABLE NO. 2.3

ACCEPTABLE INSTRUMENT ACCURACY

REFERENCE IWP-4110-1

PRESSURE	±	2% OF FULL SCALE
DIFFERENTIAL PRESSURE	±	2% OF FULL SCALE
FLOW RATE	±	2% OF FULL SCALE
SPEED	±	2% OF FULL SCALE
TEMPERATURE	±	5% OF FULL SCALE
VIBRATION AMPLITUDE	±	5% OF FULL SCALE

[illegible]

2.9 TEMPERATURE MEASUREMENT (BEARINGS IWP-4310)

The temperature of all centrifugal pump bearings outside the main flow path and of the main shaft bearings of reciprocating pumps shall be measured at points selected to be responsive to changes in the temperature of the bearing. Lubricant temperature, when measured after passing through the bearing, and prior to entering a cooler, shall be considered the bearing temperature.

2.10 VIBRATION (VIBRATION AMPLITUDE IWP-4510)

At least one displacement vibration amplitude (peak-to-peak composite) shall be read during each inservice test. The direction of displacement shall be measured in a plane approximately perpendicular to the rotating shaft, and in the horizontal or vertical direction that has the largest deflection for the particular pump installation. The location shall generally be on a bearing housing or its structural support, provided it is not seperated from the pump by any resilient mounting. On a pump coupled to the driver, the measurement shall be taken on the bearing housing near the coupling; on close-coupled pumps, the measurement point shall be as close as possible to the inboard bearing. On reciprocating pumps, the location shall be on the bearing housing of the main pump drive shaft, approximately perpendicular to both the shaft and the line of plunger travel.

3.0 DEVELOPMENT OF THE INSERVICE VALVE TEST PROGRAM

Following is the detailed description of the Testing Program outline for all valves to be tested:

3.1 VALVE PROGRAM IWV-1100

The Valve test program shall be conducted in accordance with article IWV of the ASME Code, except where specific Relief is requested in accordance with 10 CFR 50.55a (g) (5) (iii).

Class 1, 2 and 3 valves (and their actuating and position indicating systems) requiring inservice testing at Turkey Point are classified as those valves required to perform a specific function in shutting down a reactor to the cold shutdown condition or in mitigating the consequences of an accident.

3.1.1 VALVES EXEMPT FROM TESTING IWV-1200

(a) Valves used only for operating convenience (such as manual vent, drain, instrument, and test valves), valves used for system control (such as pressure regulating valves), and valves used only for maintenance;

(b) external control and protection system responsible for sensing plant conditions and providing signals for valve operation.

(c) non-nuclear safety valves

3.2 VALVE CATEGORIES IWV-2200

Each valve subject to testing has been placed in one or more of the following categories. When more than one distinguishing category characteristic is applicable, all requirements of each of the individual categories are applicable, although duplication or repetitions of common testing requirements is not necessary.

3.2.1 CATEGORY A

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

[illegible]

3.2.2 CATEGORY B

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

3.2.3 CATEGORY C

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

3.2.4 CATEGORY D

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

3.3 VALVE REPLACEMENT, REPAIR AND MAINTENANCE IWV-3200

When a valve or its control system has been replaced or repaired or has undergone maintenance (See note) that could affect its performance, and prior to the time it is returned to service, it shall be tested to demonstrate that the performance parameters which could be affected by the replacement, repair, or maintenance are within acceptable limits.

NOTE: Adjustment of steam packing, removal of the bonnet, stem assembly, or actuator, and disconnection of hydraulic or electrical lines are examples of maintenance that could affect valve performance parameters.

3.4 VALVE POSITION INDICATOR VERIFICATION IWV-3300

Valves with remote position indicators shall be observed at least once every two (2) years to verify that valve operation is accurately indicated.

3.5 INSERVICE TESTS CATEGORY A AND B VALVES IWV-3400

3.5.1 TEST FREQUENCY IWV-3411

Category A and B valves shall be exercised at least once every three (3) months, except as provided in paragraphs 3.5.2.1, 3.5.5, and 3.5.6.

[illegible]

3.5.2 EXERCISING PROCEDURES IWV-3412

3.5.2.1 STROKING

Valves shall be exercised to the position required to fulfill their function unless such operation is not practical during plant operation. If only limited operation is practical during plant operation, the valve shall be part stroke exercised during plant operation and full stroke exercised during cold shutdowns.

Valves that cannot be exercised during plant operation shall be specifically identified and shall be full-stroke exercised during cold shutdowns. Full-stroke exercising during cold shutdowns for all valves not full-stroke exercised during plant operation shall be on a frequency determined by the intervals between shutdowns as follows:

a. for intervals of three (3) months or longer, exercising during each shutdown:

b. for intervals of less than three (3) months, full-stroke exercise is not required unless three (3) months have passed since last shutdown exercise.

3.5.2.2. VALVE DISK MOVEMENT

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

3.5.3 POWER OPERATED VALVES IWV-3413

3.5.3.1 FULL STROKE

The limiting value of full-stroke time of each power operated valve shall be specified. Full-stroke time is that time interval from initiation of the actual signal to the end of the actuating cycle.

3.5.3.2 STROKE TIME

The stroke time of all power operated valves shall be measured to the nearest second, for stroke times 10 sec or less, or 10% of the specified limiting stroke time for full-stroke times longer than 10 sec whenever such a valve is full-stroke tested.

3.5.4 VALVES IN REGULAR USE IWV-3414

Valves which operate in the course of plant operations at a frequency which would satisfy the exercising requirements, need not be additionally exercised, provided that the observations otherwise required for testing are made and analyzed during such operation and are recorded in the plant record at intervals no greater than those identified in paragraph 3.5.1.

3.5.5 FAIL-SAFE VALVES IWV-3415

When practical, valves with fail-safe actuators shall be tested by observing the operation of the valve upon loss of actuator power. If these valves cannot be tested once every three (3) months, they shall be tested during each cold shutdown: in case of frequent shutdowns, these valves need not be tested more often than once every three (3) months.

3.5.6 VALVES IN SYSTEMS OUT OF SERVICE IWV-3416

For a valve in a system declared inoperable or not required to be operable, the exercising test schedule need not be followed. Within thirty (30) days prior to return of the system to operable status, the valves shall be exercised and the schedule resumed.

Denoted below are the Exercise Codes for those valves identified within the program tables:

TABLE NO. 3.5-2

MEASUREMENT OF FULL STROKE TIME

EXERCISE CODE	DEFINITION OF CODE
EO	Exercise valve, Full Stroke in the open direction.
EC	Exercise valve, Full Stroke in the closing direction

[illegible]

3.5.7 CORRECTIVE ACTION IWV-3417

3.5.7.1 POWER OPERATED VALVES

If, for power operated valves, an increase in stroke time of 25% or more from the previous test for valves with full-stroke times greater than 10 sec or 50% or more for valves with full-stroke times less than or equal to 10 sec is observed, test frequency shall be increased to once each month until corrective action is taken, at which time the original test frequency shall be resumed.

3.5.7.2 VALVE FAILURES

If a valve fails to exhibit the required change of valve stem or disk position or exceeds its specified limiting value of full-stroke time by this testing, then corrective action shall be initiated immediately. If the condition is not, or cannot be, corrected within 24 hours, the valve shall be declared inoperative. When corrective action is required as a result of tests made during cold shutdowns, the condition shall be corrected before startup. A retest showing acceptable operation shall be run following any required corrective action before the valve is returned to service.

3.6 VALVE LEAK RATE TEST IWV-3420

3.6.1 VALVE LEAK RATE TEST IWV-3421

Category A valves shall be leak tested except that valves which function in the course of plant operation in a manner that demonstrates functionally adequate seat tightness need not be leak tested. In such cases, the valve record shall provide the basis for the conclusion that operational observations constitute satisfactory demonstration.

3.6.2 FREQUENCY IWV-3422

Tests shall be conducted at least once every two (2) years.

Denoted below are the definition of the valve leak rate test for those valves identified within the program tables:

TABLE NO. 3.6-1
VALVE LEAK RATE TESTS

LEAK RATE CODE	DEFINITION OF CODE
SLT	Seat leakage test valve during refueling but at least once every 2 years (Code).

3.6.3 DIFFERENTIAL TEST PRESSURE IWV-3423

Valve seat leakage tests shall be made with the pressure differential in the same direction as when the valve is performing its function, with the following exceptions.

3.6.3.1 GLOBE VALVES

Globe type valves may be tested with pressure under the seat.

3.6.3.2 BUTTERFLY VALVES

Butterfly valves may be tested in either direction, provided their seat construction is designed for sealing against pressure on either side.

3.6.3.3 GATE VALVES

Gate valves with two-piece disks may be tested by pressurizing them between the seats.

3.6.3.4 TEST DIRECTION

Valves (except check valves) may be tested in either direction if the function differential pressure is 15 psi (100 kPa) or less.

3.6.3.5 PRESSURE DIFFERENTIAL

Leakage tests involving pressure differentials lower than function pressure differentials are permitted in those types of valves in which service pressure will tend to diminish the overall leakage channel opening, as by pressing the disk into or onto the seat with greater

force. Gate valves, check valves, and globe type valves having function pressure differential applied over the seat, are examples of valve applications satisfying this requirement. When leakage tests are made in such cases using pressures lower than function maximum pressure differential, the observed leakage shall be adjusted to function maximum pressure differential value. This adjustment shall be made by calculation appropriate to the test media and the ratio between test and function pressure differential, assuming leakage to be directly proportional to the pressure differential to the one-half power.

3.6.3.6 REDUCED PRESSURE TESTING

Valves not qualifying for reduced pressure testing as defined in 3.6.3.5 above shall be leak tested at full maximum function pressure differential, with adjustment by calculation if needed to compensate for a difference between service and test media.

3.6.4 SEAT LEAKAGE MEASUREMENT IWV-3424

Valve seat leakage may be determined by one of the following:

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 3.6.3 are satisfied.

3.6.5 ANALYSIS OF LEAKAGE RATES IWV-3426

Leakage rate measurements shall be compared with previous measurements and with the permissible leakage rates for a specific valve. If leakage rates are not specified by Florida Power and Light Company the following rates shall be permissible:
For Check valves see note number 2.

3.6.5.1 WATER

for water, at function pressure differential, -30 D ml/hr; (see note 1)

3.6.5.2 AIR

For air, at function pressure differential, 7.5 D standard cu ft/day. (see note 1)

NOTES: 1. D is the nominal valve size, inches

2. for check valves, use double the listed values

3.6.6 CORRECTIVE ACTION IWV-3427

A. Valves with leakage rates exceeding the values specified by FPL, or the rates given in 3.6.5, where values have not been specified by FPL, shall be replaced or repaired.

B. For valves 6 inch 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; the test shall be rescheduled to coincide with a cold shutdown until corrective action is taken, at which time the original test frequency shall be resumed. If tests show 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%,the valve shall be replaced or repaired.

3.7 CATEGORY C VALVES IWV-3500

3.7.1 SAFETY VALVE AND RELIEF VALVE TESTS IWV-3510

3.7.1.1 TEST FREQUENCY IWV-3511

Valves shall be tested at the end of each time period as defined in Table No. 3.5.

[illegible]

TABLE NO. 3.5

CATEGORY C: SAFETY AND RELIEF VALVES TESTING SCHEDULE REFERENCE IWV-3510-1

STARTUP THROUGH 1ST REFUELING	MINIMUM OF N_1/ 60 X TOTAL VALVES IN THIS CATEGORY NOTE (1)]
1ST REFUELING THROUGH 2ND REFUELING	ADDITIONAL VALVES TO MAKE CUMULATIVE TESTED AT LEAST N_2/ 60 X TOTAL VALVES IN THIS CATEGORY NOTE (1)]
2ND REFUELING THROUGH 3RD REFUELING, etc.	ADDITIONAL VALVES TO MAKE CUMULATIVE TESTED AT LEAST N_3/ 60 X TOTAL VALVES IN THIS CATEGORY, etc. NOTE (1)]

NOTE:

(1) N_1, N_2, N_3, etc., ARE THE NUMBER OF MONTHS FROM STARTUP TO FIRST REFUELING, SECOND REFUELING, THIRD REFUELING, etc. WHEN N IS A NUMBER LARGER THAN 60, ALL VALVES WHICH HAVE NOT BEEN TESTED DURING THE PRECEDING 5 YEAR PERIOD SHALL BE TESTED. THE FOLLOWING PERIOD SHALL THEN BE CONSIDERED TO BE THE SAME AS "STARTUP TO FIRST REFUELING" FOR PURPOSES OF DETERMINING TEST FREQUENCY, WITH THE ADDED REQUIREMENT THAT AT EACH REFUELING ALL VALVES WHICH HAVE NOT BEEN TESTED DURING THE PRECEDING 5 YEAR PERIOD SHALL BE TESTED. THE SUBSEQUENT PERIOD WILL BE CONSIDERED THE SAME AS THE FIRST REFUELING TO THE SECOND REFUELING , etc., WITH N DETERMINED BY COUNTING MONTHS FROM THE NEW STARTING POINT.

3.7.1.2 TEST PROCEDURES IWV-3512

Safety valves and Relief valve set points shall be tested in accordance with ASME PTC 25.3-1976. Bench testing, with suitable hydraulic or pneumatic equipment, or testing in place with hydraulic or pneumatic assist equipment, is an acceptable method under PTC 25.3-1976. Valves so tested are not required to be additionally leak tested in accordance with 3.6.

Denoted below are the test parameters for Safety and Relief valves identified within the program tables:

TABLE NO. 3.7-2
TEST PARAMETERS (SAFETY & RELIEF VALVES)

EXERCISE CODE	DEFINITION OF CODE.
TF	Safety and Relief valve tests (Set Point) to ASME Table IWV-3510-1 (Code) (see Program Table 3.5).
TF-1	SET POINT TO 1085 psig
TF-2	SET POINT TO 1100 psig
TF-3	SET POINT TO 1115 psig
TF-4	SET POINT TO 1130 psig
TF-5	SET POINT TO 2485 psig

3.7.1.3 ADDITIONAL TESTS IWV-3513

When any valve in a system fails to function properly during a regular test, additional valves in the system shall be tested as determined by arbitrary assumption that a 12 month operating period has passed to another refueling, and the additional valves shall be tested to make the cumulative total tested at least N/60 X total valves in this category, where N now includes the additional 12 months. (see Table 3.5 for definition of N.) If any of these additional valves fail to function properly on test, then all valves in the system in this category shall be tested.

3.7.1.4 CORRECTIVE ACTION IWV-3514

A valve failing to function properly during test shall be repaired or replaced.

3.8 TESTS FOR CHECK VALVES IWV-3520

3.8.1 TEST FREQUENCY IWV-3521

Check valves shall be exercised at least once every three (3) months, except as provided by 3.8.2.

3.8.2 EXERCISING PROCEDURE IWV-3522

Check valves shall be exercised to the position required to fulfill their function unless such operation is not practical during plant operation. If only limited operation is practical, during plant operation, the check valve shall be part-stroke exercised during plant operation and full-stroke exercised during shutdowns. Valves that cannot be exercised are identified in the attached tables, and shall be full stroke exercised during cold shutdowns. Full stroke exercising during cold shutdowns for all valves not full-stroke exercised during plant operation shall be on a frequency determined by the intervals between shutdowns as follows:

a. for intervals of 3 months or longer, exercise during each shutdown;

b. for intervals of less than 3 months, full stroke exercise is not required unless 3 months have passed since the last shutdown exercise.

3.8.3 NORMALLY OPEN VALVES

Valves that are normally open during plant operation and whose function is to prevent reversed flow shall be tested in a manner that proves that the disk travels to the seat promptly on cessation or reversal of flow. Confirmation that the disk is on its seat shall be by visual observation, by an electrical signal initiated by a position indicating device, by observation of appropriate pressure indications in the system, or by other positive means.

3.8.4 NORMALLY CLOSED VALVES

Valves that are normally closed during plant operation and whose function is to open on reversal of pressure differential shall be tested by proving that the disk moves promptly away from the seat when the closing pressure differential is removed and flow through the valve is initiated, or when a mechanical opening force is applied to the disk. Confirmation that the disk moves away from the seat shall be by visual observation, by electrical signal initiated by position indicating device, by observation of substantially free flow through the valve as indicated by appropriate pressure indications in the system, or by other positive means. This test may be made with or without flow through the valve. If it is made without flow through the valve, a mechanical exerciser shall be used to move the disk. The force or torque delivered to the disk by the exerciser must be limited to less than 10% of the equivalent force or torque represented by the minimum emergency condition pressure differential acting on the disk, or to 200% of the actual observed force or torque required to perform the exercise on the valve when the valve is new and in good operating condition, whichever is less, except that for vacuum breaker valves the exerciser force or torque delivered to the disk may be equivalent to the desired functional pressure differential force. The disk movement shall be sufficient to prove that the disk moves freely off the seat. For swing or tilting disk valves, if the test is made by use of fluid flow through the valve, the pressure differential for equivalent flow shall be no greater than That observed during the preoperational test. For other types of check valves, it shall be shown that disk movement is sufficient to provide a flow area at least 50% of the area of the seat port, or to permit flow adequate for the function of the valve.

3.8.5 CORRECTIVE ACTION IWV-3523

If a check valve fails to exhibit the required change of disk position by this testing, corrective action shall be initiated immediately. If the condition is not , or can not be, corrected within 24 hours, the check valve shall be declared inoperative. When corrective action is required as a result of tests made during cold shutdown, the condition shall be corrected before startup. A retest showing acceptable performance shall be run following any required corrective action before the valve is returned to service.

3.9 CATEGORY D VALVES IWV-3600

3.9.1 EXPLOSIVELY ACTUATED VALVE TESTS IWV-3610

FPL has no explosively actuated valves identified within this program.

3.9.2 RUPTURE DISK TESTS IWV-3620

FPL has no rupture disk valves identified within this program.

3.10 INSERVICE TEST REQUIREMENTS IWV-3700

Active and passive valves in the categories defined in paragraph 3.2 shall be tested in accordance with the procedures contained in this program specified in Table 3.10.

TABLE NO. 3.10
INSERVICE TEST REQUIREMENTS[1]
REFERENCE IWV-3700-1

CATEGORY	VALVE FUNCTION (IWV-2100)	LEAK TEST PROCEDURE	EXERCISE TEST PROCEDURE	SPECIAL TEST PROCEDURE
A	ACTIVE	3.6	3.5	NONE
A	PASSIVE	3.6	NONE	NONE
B	ACTIVE	NONE	3.5	NONE
C-SAFETY & RELIEF	ACTIVE	NONE	3.7.1	NONE
C-CHECK	ACTIVE	NONE	3.8	NONE
D	ACTIVE	NONE	NONE	3.9

NOTE:

(1) NO TESTS REQUIRED FOR CATEGORY B, C, AND D PASSIVE VALVES

(2) COMBINATION CATEGORY AC CHECK VALVES SHALL BE LEAK TESTED IWV-3420 (3.6)

[illegible]

4.0 RELIEF REQUESTS

4.1 In cases where parts of the required IST Testing areas cannot be effectively tested because of a combination of component design or current testing technique limitations, Florida Power and Light Company will continue to evaluate the development of new or improved testing techniques with the intent of applying these techniques where a practical improvement in the testing can be achieved.

4.2 FORMAT

Relief Requests are arranged in order by Relief Request Number,component/system and brief description of the relief subject.They are numbered sequentially. Each Relief Request contains the following information:

A. COMPONENT IDENTIFICATION - describes the code class, Section XI requirements, table, category, item description and item identification.

B. TEST REQUIREMENTS - provides a description of the relief from the testing requirements of the code that can not be complied with.

C. FUNCTION - a brief description of the function (If applicable)

D. RELIEF REQUESTED - a brief description of the requirements that are being requested for relief.

E. BASIS FOR RELIEF - self explanatory

F. ALTERNATIVE TESTING - describes examinations or tests that FP&L proposes to use in lieu of the current requirements.

G. IMPLEMENTATION SCHEDULE

RELIEF REQUEST STATUS TABLE

TABLE NO. 4.1

RELIEF REQUEST NUMBER	DESCRIPTION
PUMP RELIEF REQUESTS:	
1	FLOW MEASUREMENTS IWP-4600
2	WITHDRAWN
3	WITHDRAWN
4	FLOW MEASUREMENTS IWP-4600 and DURATION OF TESTS IWP-3500
5	DIFFERENTIAL PRESSURE IWP-4240
6	BEARING TEMPERATURE MEASUREMENTS IWP-4310
7	WITHDRAWN
8	WITHDRAWN
9	IWP-4120, INSTRUMENT RANGE
10	IWP-4120, INSTRUMENT RANGE
11	IWP-4310, BEARING TEMPERATURE MEASUREMENT
12	IWP-3100, PUMP INLET PRESSURE MEASUREMENT

NOTES:

See paragraph 1.4.2 and note at bottom of page for FPL submittal dates and NRC reference TAC numbers.

RELIEF REQUEST NO. 1

A. COMPONENT/SYSTEM

ITEM NO.	COMPONENT DESCRIPTION	IDENTIFICATION	
1.	RESIDUAL HEAT REMOVAL PUMP	A	*-P210A
2.	RESIDUAL HEAT REMOVAL PUMP	B	*-P210B
3.	BORIC ACID TRANSFER PUMP	A	*-P203A
4.	BORIC ACID TRANSFER PUMP	B	*-P203B
5.	CONTAINMENT SPRAY PUMP	A	4-P214A
6.	CONTAINMENT SPRAY PUMP	B	4-P214B

B. SECTION XI REQUIREMENTS

IWP-4600 FLOW MEASUREMENT

C. FUNCTION

N/A

D. RELIEF REQUESTED

Relief is requested from the flow rate measurement using a rate or quantity meter installed in the pump test circuit. IWP-4600

E. BASIS FOR RELIEF

These pumps use a fixed hydraulic resistance system with an orifice installed in the pump recirculation line.

IWP-1400 States where a pump cannot practically be tested in its regular circuit, a bypass loop may be used.

Instrumentation does not exist

F. ALTERNATIVE TESTING

Measure differential pressure (IWP-4240) across the pump during the quarterly pump test. Measured differential pressure across the pump shall then be compared to the established reference value.
This provides for an indirect measure of flow rate and verifies the operational readiness of the pump (IWP-1500)

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 2

A. COMPONENT/SYSTEM

ITEM NO. COMPONENT DESCRIPTION IDENTIFICATION

B. SECTION XI REQUIREMENTS

C. FUNCTION

D. RELIEF REQUESTED

E. BASIS FOR RELIEF

F. ALTERNATIVE TESTING

G. IMPLEMENTATION SCHEDULE

THIS REQUEST FOR RELIEF IS WITHDRAWN

RELIEF REQUEST NO. 3

A. COMPONENT/SYSTEM

ITEM NO. COMPONENT DESCRIPTION IDENTIFICATION

B. SECTION XI REQUIREMENTS

C. FUNCTION

D. RELIEF REQUESTED

E. BASIS FOR RELIEF

F. ALTERNATIVE TESTING

G. IMPLEMENTATION SCHEDULE

THIS REQUEST FOR
RELIEF IS WITHDRAWN

RELIEF REQUEST NO. 4

A. COMPONENT/SYSTEM

ITEM NO.	COMPONENT DESCRIPTION	IDENTIFICATION
1.	DIESEL OIL TRANSFER NO. 3	3-P10
2.	DIESEL OIL TRANSFER NO. 4	4-P10

B. SECTION XI REQUIREMENTS

IWP-4600 FLOW MEASUREMENT
IWP-3500 DURATION OF TESTS

C. FUNCTION

N/A

D. RELIEF REQUESTED

Relief is requested from the flow rate measurement using a rate or quantity meter installed in the pump test circuit. IWP-4600

Relief is requested from the bearing temperature measurement requirements.

E. BASIS FOR RELIEF

The Diesel Oil Transfer Pumps have no installed recirculation flow path. The Diesel Oil Tank level control system provides for a direct flow path from the Diesel Oil Storage Tank to the Day Tank.
With automatic pump start on low level in the Diesel Oil Day Tank and automatic pump stop when the high level setpoint is reached, the typical operating time for these pumps is less than 10 minutes.
Therefore, operation of the Diesel Oil Transfer pumps for the 30 minute minimum run time required by IWP-3500 is impractical.

F. ALTERNATIVE TESTING

Flow rate will be calculated based on change in diesel oil day tank level and measured time.

The Diesel Oil Transfer Pump bearing temperature will be measured during a normal pump test, after a minimum of 5 minute run.

G. IMPLEMENTATION SCHEDULE
SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 5

A. COMPONENT/SYSTEM

ITEM NO.	COMPONENT DESCRIPTION	IDENTIFICATION	
1.	BORIC ACID TRANSFER PUMP	A	*-P203A
2.	BORIC ACID TRANSFER PUMP	B	*-P203B
3.	DIESEL OIL TRANSFER PUMP		3-P10
4.	DIESEL OIL TRANSFER PUMP		4-P10

B. SECTION XI REQUIREMENTS

IWP-4240 DIFFERENTIAL PRESSURE

C. FUNCTION

N/A

D. RELIEF REQUESTED

Relief is requested from the Differential pressure requirements as denoted in IWP-4240.

E. BASIS FOR RELIEF

Pump suction pressure taps were not provided in the original design of these systems. Therefore, measurement of the pump suction pressure or measurement of differential pressure is impractical.

F. ALTERNATIVE TESTING

Boric Acid Transfer and Diesel Oil Transfer Pump suction pressure will be calculated, based on tank level and the fluid elevation above the centerline of the pump.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 6

A. COMPONENT/SYSTEM

ITEM NO.	COMPONENT DESCRIPTION	IDENTIFICATION	
1.	BORIC ACID TRANSFER PUMP	A	*-P203A
2.	BORIC ACID TRANSFER PUMP	B	*-P203B

B. SECTION XI REQUIREMENTS

IWP-4310 BEARING TEMPERATURE MEASUREMENT

C. FUNCTION

N/A

D. RELIEF REQUESTED

Relief is requested from the Bearing Temperature Measurements of IWP-4310.

E. BASIS FOR RELIEF

The Boric Acid Transfer Pumps are partially enclosed with thermal insulation and heat traced to prevent precipitation of boric acid from the solution. Therefore, the Bearing Temperature measurements are not fully implemented.

F. ALTERNATIVE TESTING

Measurement of vibration amplitude and other required parameters during each pump test will provide for the early detection of changes in the mechanical characteristics of the pump.
Pump outboard bearing temperature will be measured. The inboard bearing temperature will not be measured since it is inaccessible due to thermal insulation and heat tracing.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 7

A. COMPONENT/SYSTEM

ITEM NO.	COMPONENT DESCRIPTION	IDENTIFICATION

THIS REQUEST FOR RELIEF IS WITHDRAWN

B. SECTION XI REQUIREMENTS

C. FUNCTION

D. RELIEF REQUESTED

E. BASIS FOR RELIEF

F. ALTERNATIVE TESTING

G. IMPLEMENTATION SCHEDULE

RELIEF REQUEST NO. 8

A. COMPONENT/SYSTEM

ITEM NO. COMPONENT DESCRIPTION IDENTIFICATION

B. SECTION XI REQUIREMENTS

C. FUNCTION

D. RELIEF REQUESTED

E. BASIS FOR RELIEF

F. ALTERNATIVE TESTING

G. IMPLEMENTATION SCHEDULE

THIS REQUEST FOR RELIEF IS WITHDRAWN

[illegible]

RELIEF REQUEST NO. 9

A. COMPONENT/SYSTEM

ITEM NO.	COMPONENT DESCRIPTION		IDENTIFICATION
1.	RESIDUAL HEAT REMOVAL PUMP	A	*-P210A
2.	RESIDUAL HEAT REMOVAL PUMP	B	*-P210B

B. SECTION XI REQUIREMENTS

IWP-4120 The full-scale range of each instrument shall be three times the reference value or less.

C. FUNCTION

Removes Residual Heat from the Primary System.

D. RELIEF REQUESTED

Relief is requested from the requirement that inlet and outlet pressure gage full scale range be three times the reference value.

E. BASIS FOR RELIEF

Suction pressure for all RHR pumps can vary from approximately 4 - 450 Psig. The full scale range for inlet and Discharge pressure gages for all four pumps is 0 - 600 Psig. Since there is such great variability in Suction pressure conditions, the pumps require a gage with a larger scale range.

F. ALTERNATIVE TESTING

Since the inlet pressure varies on the RHR pumps, gages with larger scale ranges are required to accomodate pressure rises of pump suction.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 10

A. COMPONENT/SYSTEM

ITEM NO.	COMPONENT DESCRIPTION	IDENTIFICATION
1.	FLUKE DIGITAL PYROMETER	
2.	SHIMPO DIGITAL TACHOMETER	
3.	THERMAZIPDIGITAL PYRO-METER	

B.SECTION XI REQUIREMENTS

IWP-4120 The full-scale range of each instrument shall be three times the reference value or less.

C. FUNCTION

The instruments are used to measure Bearing Temperature and Speed on various pumps in the IST Program.

D. RELIEF REQUESTED

Relief is requested from the requirement that the full scale range of each instrument shall be three times the reference value.

E. BASIS FOR RELIEF

The Tachometer has an overall range of 5 to 30,000 RPM. In the 5 to 5,000 RPM range the specified accuracy limits are plus or minus 1 RPM. From 5000 to 30,000 RPM the specified accuracy limits are plus or minus 2 RPM.

The Fluke pyrometer temperature ranges from - 328 degrees to 2400 degrees fahrenheit with an accuracy of plus or minus 0.1% of the reading. The Thermazip pyrometer temperature ranges from -100 degrees to 2000 degrees fahrenheit with an accuracy of 0.05% plus or minus 1 digit. Due to the varying values being read with these instruments it is not practical to use instruments which meet the requirements of IWP-4120.

F. ALTERNATIVE TESTING

No alternative test methods are proposed since both instruments provide sufficiently accurate data to utilize in the pump monitoring program to assess pump degradation.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 11

A. COMPONENT/SYSTEM

ITEM NO.	COMPONENT DESCRIPTION	IDENTIFICATION
1.	RESIDUAL HEAT REMOVAL PUMP A	* - P210A
2.	RESIDUAL HEAT REMOVAL PUMP B	* - P210B

B.SECTION XI REQUIREMENTS

IWP-4310 BEARING TEMPERATURE MEASUREMENT

C. FUNCTION

Removes residual heat from the Primary system

D. RELIEF REQUESTED

Relief is requested from measuring temperature on the lower radial bearing on the pump.

E. BASIS FOR RELIEF

The lower radial bearing temperature cannot be measured since there is no accessible point of measurement. Furthermore, vibration measurements are a significantly more reliable indication of pump bearing degradation. These pumps are subject to vibration measurements, in accordance with IWP-4500.

F. ALTERNATIVE TESTING

None

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 12

A. COMPONENT/SYSTEM

ITEM NO.	COMPONENT DESCRIPTION	IDENTIFICATION
1.	INTAKE COOLING WATER PUMP A	* - P9A
2.	INTAKE COOLING WATER PUMP B	* - P9B
3.	INTAKE COOLING WATER PUMP C	* - P9C

B. SECTION XI REQUIREMENTS

IWP-3100 PUMP INLET PRESSURE MEASUREMENT

C. FUNCTION

Provides cooling water to safety related equipment.

D. RELIEF REQUESTED

Relief is requested from the pump inlet pressure measurement of Section XI.

E. BASIS FOR RELIEF

The Intake Cooling Water Pumps are vertical line shaft pumps with no direct means to obtain the inlet pressure measurement as required by IWP-4200. The Inlet pressure cannot be measured because there are no installed pressure instruments in the intake to the pumps. The pump inlet pressure is currently determined by measuring the water level above the pump inlet and calculating the pump inlet pressure. Using a calculated pump inlet pressure and a measured pump discharge pressure, will allow FPL to determine the pump differential pressure. With pump differential pressure and measured pump flow rate, FPL should have adequate information to assess the hydraulic condition of the pump in order to detect any hydraulic degradation.

F. ALTERNATIVE TESTING

The inlet pressure will be calculated based on the water level above the pump inlet. The water level above the pump inlet will be obtained by measurement with respect to a reference point on the operating deck.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST STATUS TABLE
TABLE NO. 4.2

RELIEF REQUEST	DESCRIPTION
VALVE RELIEF REQUESTS:	
REACTOR COOLANT	
1	IWV-3410
2	IWV-3520
3	IWV-3300
4	IWV-3410 & IWV-3300
5	IWV-3410 & IWV-3300
6	IWV-3410
7	WITHDRAWN
8	IWV-3410
CHEMICAL & VOLUME CONTROL	
1	IWV-3410
2	IWV-3410
3	IWV-3410
4	WITHDRAWN
5	IWV-3410
6	IWV-3410
7	IWV-3410
8	IWV-3410
9	WITHDRAWN
10	IWV-3520
11	IWV-3520
12	IWV-3520
13	IWV-3520

RELIEF REQUEST STATUS TABLE
TABLE NO. 4.2

RELIEF REQUEST	DESCRIPTION
VALVE RELIEF REQUESTS:	
14	IWV-3520
15	IWP-3520
AUXILIARY COOLANT, RESIDUAL HEAT REMOVAL	
1	IWV-3410
2	IWV-3520
3	IWV-3420 & IWV-3410
AUXILIARY COOLANT, COMPONENT COOLING WATER,	
1	WITHDRAWN
2	WITHDRAWN
3	IWV-3410
4	WITHDRAWN
5	IWV-3410
6	IWV-3410
SAFETY INJECTION	
1	WITHDRAWN
2	WITHDRAWN
3	IWV-3410
4	IWV-3410
5	IWV-3410
6	IWV-3410
7	IWV-3520
8	IWV-3520

RELIEF REQUEST STATUS TABLE
TABLE NO.4.2

RELIEF REQUEST	DESCRIPTION
VALVE RELIEF REQUESTS:	
9	IWV-3520
10	IWV-3410
11	IWV-3410
12	IWV-3410
13	IWV-3410 & IWV-3300
14	IWV-3520
15	IWV-3520
16	IWV-3520
17	IWV-3520
18	WITHDRAWN
19	IWV-3520
20	WITHDRAWN
21	IWV-3410
22	IWV-3520
SAMPLING	
1	WITHDRAWN
2	IWV-3300
MAIN STEAM	
1	IWV-3520
2	IWV-3520
CONDENSATE AND FEEDWATER	
1	WITHDRAWN
2	WITHDRAWN

RELIEF REQUEST STATUS TABLE
TABLE NO. 4.2

RELIEF REQUEST	DESCRIPTION
VALVE RELIEF REQUESTS:	
3	IWV-3520
4	IWV-3410
5	IWV-3410
6	IWV-3300
INSTRUMENT AIR(LUBE OIL, SERVICE AND INSTRUMENT AIR)	
1	IWV-3520
DIESEL OIL	
1	IWV-3413
2	IWV-3413
3	IWV-3413
PRIMARY MAKE-UP AND CONTAINMENT COOLING WATER	
1	IWV-3410
CONTAINMENT VENTILATION	
1	IWV-3410
2	IWV-3410
3	IWV-3520
4	IWV-3410
5	IWV-3300
6	IWV-3410
7	IWV-3520
8	IWV-3410

RELIEF REQUEST STATUS TABLE
TABLE NO. 4.2

RELIEF REQUEST	DESCRIPTION
VALVE RELIEF REQUESTS:	
VARIOUS	
1	IWV-3417, IWV-3427, IWV-3523 AND IWP-3230
2	IWV-3423 AND IWV-3424
3	IWV-3420

RELIEF REQUEST NO. 1

A. COMPONENT/SYSTEM REACTOR COOLANT

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
CV-*-519A	A	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides a primary water path to either the pressurizer relief tank or the Reactor coolant pumps standpipes.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

Failure of this valve in the non-closed position, by testing during plant operation, would cause a loss of containment integrity requiring Reactor Shutdown per Technical Specification (3.3).

F. ALTERNATIVE TESTING

This valve will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 2

A. COMPONENT/SYSTEM REACTOR COOLANT

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-518	AC	2
*-519	AC	2

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Provides flow from the Nitrogen system to the Pressurizer Relief Tank.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

Failure of this valve in the non-closed position, by testing during plant operation, would cause a loss of containment integrity requiring Reactor shutdown per Technical Specification (3.3).

F. ALTERNATIVE TESTING

This valve will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 3

A. COMPONENT/SYSTEM REACTOR COOLANT

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
SV-*-6385	A	2

B. SECTION XI REQUIREMENTS

IWV-3300

C. FUNCTION

Provides flow path from pressurizer relief tank to gas analyzer.

D. RELIEF REQUESTED

Relief is requested from direct valve position indication verification.

E. BASIS FOR RELIEF

This self contained, completely enclosed solenoid valve has no external valve position indication. Therefore, direct observation of valve position indication is impractical.

F. ALTERNATIVE TESTING

This valve will be tested by connecting an external air supply with sufficient air pressure to verify the main disk moves to the open position at least once every 2 years.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 4

A. COMPONENT/SYSTEM REACTOR COOLANT

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
SV-*-6319A	B	2
SV-*-6319B	B	2

B. SECTION XI REQUIREMENTS

IWV-3410
IWV-3300

C. FUNCTION

Provides for redundant flow paths from the pressurizer to the Reactor Coolant Vent System.

D. RELIEF REQUESTED

Relief is requested from exercising the valves during normal plant operation and from valve position indication verification.

E. BASIS FOR RELIEF

These valves are required to be positioned closed and key locked to prevent inadvertent operation of these valves during unit operation.
Failure of either of these valves in the non-closed position coupled with the failure of either SV-*-6320A or SV-*-6320B, while testing during plant operation, could result in loss of reactor coolant in excess of Plant Technical Specification 3.1.3. This would result in unit shutdown.
These self contained, completely enclosed solenoid valves have no local valve position indication. Therefore, observation of the valve position indication is impractical.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns when the Reactor Coolant System is depressurized and vented.

During refueling shutdowns, valve disk position will be determined by exercising the valve while observing changes in pressure, temperature or flow to the containment atmosphere, flow to the containment sump, or level increase in the pressurizer relief tank.

G. IMPLEMENTATION SCHEDULE
SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 5

A. COMPONENT/SYSTEM REACTOR COOLANT

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
SV-*-6318A	B	2
SV-*-6318B	B	2
SV-*-6320A	B	2
SV-*-6320B	B	2

B. SECTION XI REQUIREMENTS

IWV-3410
IWV-3300

C. FUNCTION

Provide for redundant flow paths from the reactor vessel closure head to the Reactor Coolant Vent System.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation and from valve position indication verification.

E. BASIS FOR RELIEF

These valves are required to be positioned closed and key locked to prevent inadvertent operation of these valves during normal unit operation.
Failure of either SV-*-6318A or SV-*-6318B in the non-closed position coupled with the failure of either SV-*-6320A or SV-*-6320B, while testing during plant operation, could result in loss of reactor coolant in excess of Technical Specification 3.1.3. This would result in a unit shutdown.
These self contained , completely enclosed solenoid valves have no local valve position indication. Therefore, observation of valve position indication is impractical.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdown when the Reactor Coolant System is depressurized and vented.
During refueling shutdowns, valve disk position will be determined by exercising the valve while observing changes in pressure, temperature, flow to the containment atmosphere, flow to the containment sump, or level increase in the pressurizer relief tank.

G. IMPLEMENTATION SCHEDULE
SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 6

A. COMPONENT/SYSTEM REACTOR COOLANT

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
PCV-*-455C	B	1
PCV-*-456	B	1

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Power Operated Relief Valve (PORV). Provides for low temperature overpressure mitigation during cold shutdown operation. No credit is taken for PORVs during power operation.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

Failure of either of these valves in the non-closed position coupled with the failure of the associated isolation (Block) valve, by testing during plant operation, would result in a plant shutdown per Plant Technical Specification 3.2.2.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns when the Reactor Coolant System is depressurized and vented.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 7

A. COMPONENT/SYSTEM REACTOR COOLANT

VALVE IDENTIFICATION NUMBER CATEGORY CLASS

B. SECTION XI REQUIREMENTS

C. FUNCTION

D. RELIEF REQUESTED

E. BASIS FOR RELIEF

F. ALTERNATIVE TESTING

G. IMPLEMENTATION SCHEDULE

THIS REQUEST FOR
RELIEF IS WITHDRAWN

RELIEF REQUEST NO. 8

A. COMPONENT/SYSTEM REACTOR COOLANT

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
CV-*-516	A	2
SV-*-6385	A	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides flow path from pressurizer relief tank to the gas analyzer.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

Failure of these valves in the non-closed position, by testing during plant operation, would cause a loss of containment integrity requiring Reactor shutdown per Plant Technical Specification (3.3).

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdown.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 1

A. COMPONENT/SYSTEM CHEMICAL & VOLUME CONTROL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
CV-*-200A	A	1
CV-*-200B	A	1
CV-*-200C	A	1

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides parallel letdown flow paths through the associated letdown orifices to control Chemical and Volume Control System letdown flow rate.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

Failure of any one of these valves in the non-closed position, by testing during plant operation, would require a shutdown per Technical Specification (3.3).

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 2

A. COMPONENT/SYSTEM CHEMICAL & VOLUME CONTROL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
CV-*-204	A	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides the letdown flowpath during plant operation.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

Testing this valve during plant operation would cause an unbalance flow condition in the Chemical and Volume Control System. The loss of the letdown flow path will result in the loss of the regenerative heat exchanger function. This could subject the Reactor Coolant System piping to thermal shock due to cooler charging return flow from the Chemical and Volume Control System.

F. ALTERNATIVE TESTING

This valve will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 3

A. COMPONENT/SYSTEM CHEMICAL & VOLUME CONTROL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
MOV-*-381	A	2
MOV-*-6386	A	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides the Reactor Coolant Pump seal injection return flow path to the Chemical and Volume Control Tank. In addition, provides the excess letdown flow path from the Reactor Coolant System to the Chemical and Volume Control System Volume Control Tank.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

Testing either of these valves during plant operations would interrupt flow to the Reactor Coolant Pump Controlled Leakage Seal Systems, which could result in damage to the Reactor Coolant Pumps; thereby, placing the plant in an unsafe mode of operation.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns when the Reactor Coolant System is depressurized and vented.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 4

A. COMPONENT/SYSTEM CHEMICAL & VOLUME CONTROL

VALVE IDENTIFICATION NUMBER CATEGORY CLASS

B. SECTION XI REQUIREMENTS

C. FUNCTION

D. RELIEF REQUESTED

E. BASIS FOR RELIEF

F. ALTERNATIVE TESTING

G. IMPLEMENTATION SCHEDULE

THIS REQUEST FOR RELIEF IS WITHDRAWN

[illegible]

RELIEF REQUEST NO. 5

A. COMPONENT/SYSTEM CHEMICAL & VOLUME CONTROL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
HCV-*-121	A	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides the charging flow path to the Reactor Coolant System. This valve is used to proportion flow between the seal injection supply to the Reactor Coolant pump Controlled Leakage Seal System and the charging flow to the Reactor Coolant System.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation. Relief is also requested from stroke time testing this control valve.

E. BASIS FOR RELIEF

Testing this valve during plant operation would cause an unbalance flow condition in the Chemical and Volume Control System. This would interrupt flow to the Reactor Coolant Pump Controlled Leakage Seal System, which could result in damage to the Reactor Coolant Pumps; thereby, placing the plant in an unsafe mode of operation.
Stroke time testing is not essential for fullfillment of the safety function of this valve.
During normal plant operation the valve is positioned, using a potentiometer on the control console to maintain sufficient backpressure in the charging header to ensure adequate RCP seal water injection flow.

F. ALTERNATIVE TESTING

This valve will be tested during cold shutdowns, after the charging pumps have been secured. During normal plant operation valve operational readiness is verified when charging and letdown are in effect.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 6

A. COMPONENT/SYSTEM CHEMICAL & VOLUME CONTROL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
CV-*-310A	B	1
CV-*-310B	B	1

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides redundant charging flow paths to the Reactor Coolant System.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

Testing these valves during normal operation could result in loss of pressurizer level control or thermal shock to the Chemical and Volume Control System injection nozzles.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 7

A. COMPONENT/SYSTEM CHEMICAL & VOLUME CONTROL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
LCV-*-115C	B	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides the flow path from the Volume Control Tank to the charging pump suction header.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

Testing this valve during plant operation would cause an unbalance flow condition in the Chemical and Volume Control System. This would interrupt flow to the Reactor Coolant Pump Controlled Leakage Seal System. Which would result in damage to the Reactor Coolant Pumps; thereby, placing the plant in an unsafe mode of operation. Further, the failure of this valve in the closed position, by testing during plant operation, would isolate normal charging pump make-up.

F. ALTERNATIVE TESTING

This valve will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 8

A. COMPONENT/SYSTEM CHEMICAL & VOLUME CONTROL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
LCV-*-115B	B	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides a flow path from the Refueling Water Storage Tank to the charging pump suction header.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

This valve is interlocked with LCV-*-115C. Testing this valve during plant operation would result in closure of LCV-*-115C. This would result in loss of charging pump flow from the Volume Control Tank or overboration of the Reactor Coolant System from the refueling water storage tank.

F. ALTERNATIVE TESTING

This valve will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 9

A. COMPONENT/SYSTEM CHEMICAL & VOLUME CONTROL

VALVE IDENTIFICATION NUMBER CATEGORY CLASS

B. SECTION XI REQUIREMENTS

C. FUNCTION

D. RELIEF REQUESTED

E. BASIS FOR RELIEF

F. ALTERNATIVE TESTING

G. IMPLEMENTATION SCHEDULE

THIS REQUEST FOR RELIEF IS WITHDRAWN

[illegible]

RELIEF REQUEST NO. 10

A. COMPONENT/SYSTEM CHEMICAL & VOLUME CONTROL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-312A	C	1
*-312B	C	1

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Provides flow from the Chemical Volume and Control system to the RCS Hot and Cold legs.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

Testing this valve during plant operation would cause an unbalance flow condition in the Chemical and Volume Control System. This would interrupt flow to the Reactor Coolant Pump Controlled Leakage Seal System, which could result in damage to the Reactor Coolant Pumps; thereby, placing the plant in an unsafe mode of operation.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 11

A. COMPONENT/SYSTEM CHEMICAL & VOLUME CONTROL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-351	C	2

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Provides the Boron addition flow path from the Boron addition (Boric Acid Makeup) system to the Reactor Coolant System.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

Testing this valve during plant operation could result in addition of excess boron to the Reactor Coolant System resulting in a reactor shutdown.

F. ALTERNATIVE TESTING

This valve will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 12

A. COMPONENT/SYSTEM CHEMICAL & VOLUME CONTROL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-357	C	2

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Provides the alternate Boron addition flow path from the refueling water storage tank to the Reactor Coolant system.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

Testing this valve during plant operation would result in the addition of boron to the Reactor Coolant System. This could place the plant in an unsafe mode of operation.

F. ALTERNATIVE TESTING

This valve will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 13

A. COMPONENT/SYSTEM CHEMICAL & VOLUME CONTROL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-298A	AC	1
*-298B	AC	1
*-298C	AC	1

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Prevents reverse flow from the Reactor Coolant pump seal injection system to the chemical and volume control system.

D. RELIEF REQUESTED

Relief is requested from testing these valves during normal plant operation as well as cold shutdowns.

E. BASIS FOR RELIEF

Testing these valves during plant operation would interrupt flow to the Reactor Coolant Pump Seal injection system, which would result in damage to the Reactor Coolant Pumps; thereby, placing the plant in an unsafe mode of operation.

Further, the testing of these valves during cold shutdown is impractical since it would require draining the Reactor Coolant Pump Seal Injection System to check the position of these valves.
This would increase the possibility of causing damage to the Reactor Coolant pump seals due to the added frequency of venting the system prior to plant operation.

F. ALTERNATIVE TESTING

These valves will be tested at least once every 2 years.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 14

A. COMPONENT/SYSTEM CHEMICAL & VOLUME CONTROL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-312C	AC	1

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Prevents reverse flow from the Reactor Coolant System charging flow path to the chemical and Volume Control System.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

Testing this valve during plant operation would cause an unbalance flow condition in the Chemical and Volume Control System. This could result in damage to the Reactor Coolant Pumps; thereby, placing the plant in an unsafe mode of operation.

Testing this valve during cold shutdown is impractical because it would require draining the charging system to check the position of the valve. This would cause a loss of the charging flow path that is routinely used to meet the Technical Specification requirements to have a boron injection flow path to the Reactor Coolant System during cold shutdown.

F. ALTERNATIVE TESTING

This valve will be tested at least once every 2 years.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 15

A. COMPONENT/SYSTEM CHEMICAL & VOLUME CONTROL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
3-397A	C	2
3-397B	C	2
4-397C	C	2
4-397D	C	2

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Provides flow from Boric Acid Transfer pumps to the CVCS makeup and blending station.

D. RELIEF REQUESTED

Relief is requested from testing these valves during normal plant operation.

E. BASIS FOR RELIEF

Testing any of these valves during plant operation would cause an addition of excess boron to the Reactor Coolant System resulting in a reactor shutdown.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 1

A. COMPONENT/SYSTEM AUXILIARY COOLANT, COMPONENT COOLING WATER

VALVE IDENTIFICATION NUMBER CATEGORY CLASS

B. SECTION XI REQUIREMENTS

C. FUNCTION

D. RELIEF REQUESTED

E. BASIS FOR RELIEF

F. ALTERNATIVE TESTING

G. IMPLEMENTATION SCHEDULE

THIS REQUEST FOR RELIEF IS WITHDRAWN

RELIEF REQUEST NO. 2

A. COMPONENT/SYSTEM AUXILIARY COOLANT, COMPONENT COOLING WATER

VALVE IDENTIFICATION NUMBER CATEGORY CLASS

B. SECTION XI REQUIREMENTS

C. FUNCTION

D. RELIEF REQUESTED

E. BASIS FOR RELIEF

F. ALTERNATIVE TESTING

G. IMPLEMENTATION SCHEDULE

THIS REQUEST FOR RELIEF IS WITHDRAWN

[illegible]

RELIEF REQUEST NO. 3

A. COMPONENT/SYSTEM AUXILIARY COOLANT, COMPONENT COOLING WATER

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
MOV-*-716A	B	2
MOV-*-716B	B	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides the component cooling water supply flow path for the heat exchangers located in the Reactor Coolant pumps. (motors and thermal barriers)

D. RELIEF REQUESTED

Relief is requested from exercise testing during normal plant operation.

E. BASIS FOR RELIEF

Testing either of these valves during plant operation would cause interruption of cooling water to the Reactor Coolant pumps heat exchangers. This action could result in damage to the Reactor Coolant pumps; placing the plant in an unsafe mode of operation.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

Second Inspection Interval

RELIEF REQUEST NO. 4

A. COMPONENT/SYSTEM COMPONENT COOLING WATER

VALVE IDENTIFICATION NUMBER CATEGORY CLASS

B. SECTION XI REQUIREMENTS

C. FUNCTION

D. RELIEF REQUESTED

E. BASIS FOR RELIEF

F. ALTERNATIVE TESTING

G. IMPLEMENTATION SCHEDULE

THIS REQUEST FOR RELIEF IS WITHDRAWN

[illegible]

RELIEF REQUEST NO. 5

A. COMPONENT/SYSTEM AUXILIARY COOLANT, COMPONENT COOLING WATER

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
MOV-*-730	B	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides the component cooling water return flow path for the Reactor Coolant pumps motor heat exchangers.

D. RELIEF REQUESTED

Relief is requested from exercise testing during normal plant operation.

E. BASIS FOR RELIEF

Testing this valve during plant operation would cause interruption of cooling water to the Reactor Coolant pumps motor heat exchangers. This action could result in damage to the Reactor Coolant pumps; thereby, placing the plant in an unsafe mode of operation.

F. ALTERNATIVE TESTING

This valve will be tested during cold shutdown.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 6

A. COMPONENT/SYSTEM AUXILIARY COOLANT, COMPONENT COOLING WATER

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
FCV-*-626	B	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides the component cooling return flow path for the Reactor Coolant pumps controlled leakage seal system thermal barriers.

D. RELIEF REQUESTED

Relief is requested from exercise testing during normal plant operation.

E. BASIS FOR RELIEF

Testing this valve during plant operation would cause interruption of cooling water to the Reactor Coolant pumps Controlled Leakage Seal System heat exchangers. This action could result in damage to the Reactor Coolant pumps; thereby, placing the plant in an unsafe mode of operation.

F. ALTERNATIVE TESTING

This valve will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 1

A. COMPONENT/SYSTEM AUXILIARY COOLANT, RESIDUAL HEAT REMOVAL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
MOV-*-744A	B	2
MOV-*-744B	B	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides a flow path from the low pressure safety injection system to the Reactor Coolant System.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

The testing of these valves during plant operation, coupled with the failure of valves *-876A, *-876B, or *-876C, could subject the Low Pressure Safety Injection System to pressures in excess of its design pressure.

F. ALTERNATIVE TESTING

These (MOVs) valves will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 2

A. COMPONENT/SYSTEM AUXILIARY COOLANT, RESIDUAL HEAT REMOVAL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-753A	C	2
*-753B	C	2

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Provides flow from the low pressure safety injection (Residual Heat Removal) pump to the Low Pressure Safety Injection (Residual Heat Removal) system supply header.

D. RELIEF REQUESTED

Relief is requested from testing these valves during normal plant operation.

E. BASIS FOR RELIEF

These valves cannot be tested during plant operation because the Low Pressure Safety Injection (Residual Heat Removal) pumps do not develop sufficient discharge head to establish a flow path to the Reactor Coolant System.

F. ALTERNATIVE TESTING

These check valves will be Full Stroke exercised during cold shutdown.

In addition, these check valves will be exercised quarterly during the performance of associated pump tests with flow through the pump minimum flow recirculation line.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 3

A. COMPONENT/SYSTEM AUXILIARY COOLANT, RESIDUAL HEAT REMOVAL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
MOV-*-751	A	1
MOV-*-750	A	1

B. SECTION XI REQUIREMENTS

IWV-3420

IWV-3410

C. FUNCTION

Provides a flow path from the Reactor Coolant System to the Residual Heat Removal System for removal of decay heat from the reactor core.

D. RELIEF REQUESTED

Relief is requested from testing during normal plant operation for the IWV-3410 requirements and from IWV-3420 requirements for leak testing.

E. BASIS FOR RELIEF

IWV-3420 BASIS

These valves are not required to be tested to 10 CFR Part 50, Appendix J, Type C tests. These valves will be tested as pressure isolation valves.

IWV-3410 BASIS

These valves are provided with pressure interlocks from PL 403 to prevent opening these valves when: (1) RCS pressure is greater than 525 psig and (2) Either MOV-*-862A, MOV-*-862B, MOV-*-863A or MOV-*-863B of the associated unit is open, sensed through proximeter switches internal to the valves.

F. ALTERNATIVE TESTING

IWV-3420

These valves will be tested as Reactor Coolant pressure isolation valves using methods, procedures, and acceptance criteria in Table II and Technical Specification 4.17.

RELIEF REQUEST NO. 3 CONTINUED

F. ALTERNATIVE TESTING CONTINUED

IWV-3410

These valves will be tested during cold shutdown.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 1

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER CATEGORY CLASS

B. SECTION XI REQUIREMENTS

C. FUNCTION

D. RELIEF REQUESTED

E. BASIS FOR RELIEF

F. ALTERNATIVE TESTING

G. IMPLEMENTATION SCHEDULE

THIS REQUEST FOR RELIEF IS WITHDRAWN

RELIEF REQUEST NO. 2

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER CATEGORY CLASS

B. SECTION XI REQUIREMENTS

C. FUNCTION

D. RELIEF REQUESTED

E. BASIS FOR RELIEF

F. ALTERNATIVE TESTING

G. IMPLEMENTATION SCHEDULE

THIS REQUEST FOR
RELIEF IS WITHDRAWN

RELIEF REQUEST NO. 3

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
MOV-*-863A	B	2
MOV-*-863B	B	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides the alternate flow path from the Low Pressure Safety Injection System to the Reactor Coolant System. Also, provides the flow path to the High Pressure Safety Injection System during the recirculation phase.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

The failure of either of these valves in the open position, by testing during normal operation, would result in diverting flow from the reactor core in the event of a safety injection signal.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns when the RCS is depressurized and vented and during each refueling outage.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 4

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
MOV-*-872	A	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides the alternate flow path from the Low Pressure Safety Injection System to the Reactor Coolant System.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

The failure of this valve in the non-closed position, by testing during plant operation, renders high pressure long term Safety Injection System recirculation unavailable.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdown when the RCS is depressurized and vented and during each refueling outage.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 5

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-945E	AC	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Prevents reverse flow of nitrogen from the Safety Injection Accumulators to the nitrogen supply.

D. RELIEF REQUESTED

Relief is requested from exercise testing during normal operation (quarterly)

E. BASIS FOR RELIEF

The failure of this valve in the non-closed position, by testing during normal operation, would require a plant shutdown per Technical Specification (3.3).

F. ALTERNATIVE TESTING

This valve will be exercise tested during cold shutdowns and seat leak tested at least every two years.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 6

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
MOV-*-866A	B	1
MOV-*-866B	B	1

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides High Pressure Safety Injection redundant flow paths to the Reactor Coolant System Hot Legs.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

These valves are required by Technical Specifications to be closed and locked out at the breaker during plant operation. The positioned testing of these valves during plant operation, coupled with the failure of valve *-874A or *-874B, could subject the Safety Injection System to pressures in excess of its design pressures.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 7

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-876A	A/C	1
*-876B	A/C	1
*-876C	A/C	1

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Provides flow from the low pressure safety injection to the cold legs of the Reactor Coolant system. These valves also perform a pressure isolation function. (See Relief Request "Various number 3")

D. RELIEF REQUESTED

Relief is requested from testing during normal plant operation.

E. BASIS FOR RELIEF

These valves cannot be tested during operation because the Low Pressure Safety Injection pumps do not develop sufficient discharge head to establish a flow path to the Reactor Coolant System.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns. Valves *-876B and *-876C are tested together since their parallel lines do not contain isolation valves. In order to verify that these two valves function properly additional inspections will be performed on these valves as described in Relief Request number 22.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 8

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-876D	C	1
*-876E	C	1

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Provides flow from the alternate Low Head Safety Injection to the cold legs of the Reactor Coolant system. Also performs a pressure isolation function (see Relief Request "Various number 3").

D. RELIEF REQUESTED

Relief is requested from testing during normal plant operation.

E. BASIS FOR RELIEF

These valves cannot be tested during operation because the Low Pressure Safety Injection pumps do not develop sufficient discharge head to establish a flow path to the Reactor Coolant System.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns when the RCS is depressurized and vented and during each refueling outage. These valves are tested together, since their parallel lines do not contain isolation valves. In order to verify that these valves function properly additional inspections will be performed on these valves as described in Relief Request number 22.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 9

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-875A	A	1
*-875B	A	1
*-875C	A	1

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Provides flow from the Accumulator Safety Injection System, High Pressure Safety Injection System, and Low Pressure Safety Injection System to the Reactor Coolant System Cold Legs. Also perform a Pressure Isolation function.(see Relief Request,"Various number 3")

D. RELIEF REQUESTED

Relief is requested from testing during normal plant operation.

E. BASIS FOR RELIEF

These valves cannot be tested during operation because neither the High Pressure Safety Injection nor the Low Pressure Safety Injection pumps develop sufficient discharge head to establish a flow path to the Reactor Coolant System.

F. ALTERNATIVE TESTING

These valves will be part stroke tested during cold shutdowns. Valves *-875B, *-875C, which are in series with valves *-876B, and *-876C respectively are all tested together since the parallel lines associated with each set of valves cannot be isolated from each other. In order to verify that valves *-875B, *-875C function properly, additional inspections will be performed on these valves as described in Relief Request number 22. Valve 875A will also be inspected per Relief Request number 22 since the cold shutdown test is only a part - stroke test.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 10

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
MOV-878A	B	2
MOV-878B	B	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides a flow path to either Unit 3 or 4 with any combination of two of the four High Pressure Safety Injection pumps to the Reactor Coolant System of either unit. Normally open; closed following an accident once the units SI Pumps are verified to be operating.

D. RELIEF REQUESTED

Relief is requested from testing during normal plant operation.

E. BASIS FOR RELIEF

Four (4) High Pressure Safety Injection pumps are required to be operable for either dual unit operation or single unit operation. Failure of either valve in the non-open position, while testing during either dual unit operation, or single unit operation would isolate two of the required High Pressure Safety Injection syatem to support a LOCA on the accident unit.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 11

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
MOV-*-864A	B	2
MOV-*-864B	B	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides the flow path from the Refueling Water Storage Tank to the associated High Pressure Safety Injection pumps, Low Pressure Safety Injection pumps, Containment Spray pumps.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

These valves are required by Plant Technical Specifications to be positioned open and the breakers locked-out during plant operation.

The failure of either of these valves in the non-open position, by testing during plant operation, would result in a total loss of system function for the associated Containment Spray System and Low Pressure Safety Injection System. Further, this could jeopardize the ability of the associated High Pressure Safety Injection pumps to support LOCA.

The failure of either of these valves in the non-open position, by testing during cold shutdown of the associated unit, could jeopardize the ability of the associated High Pressure Safety Injection pumps to support a LOCA on the operating unit.

F. ALTERNATIVE TESTING

These valves will be tested during refueling shutdown of the associated unit.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 12

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
MOV-*-862A	B	2
MOV-*-862B	B	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides the flow path from the Refueling Water Storage Tank to the Low Pressure Safety Injection pumps.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

These valves are required by Plant Technical Specifications to be positioned open and the breakers locked-out during plant operation.

The failure of either of these valves in the non-open position, by testing during plant operation, would result in a total loss of the Low Pressure Safety Injection System function.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 13

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
SV-*-2905	B	2
SV-*-2906	B	2
SV-*-2907	B	2
SV-*-2908	B	2
SV-*-2909	B	2
SV-*-2910	B	2

B. SECTION XI REQUIREMENTS

IWV-3410
IWV-3300

C. FUNCTION

Provides for redundant flow paths from the operating Containment Spray Headers to the associated Emergency Containment Filter.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation and valve position indication verification.

E. BASIS FOR RELIEF

These redundant, self-contained, completely enclosed solenoid valves have no external valve position indicators. Therefore, valve position verification is impractical. Functional testing of these redundant valves by placing the containment spray system in operation would result in dousing the filters and other components located inside the containment building. Testing these valves by connecting an external water source to the containment spray header would also result in dousing the filters and other components located inside the containment building.

F. ALTERNATIVE TESTING

These redundant valves will be tested by connecting an external air supply with sufficient air pressure to verify the main disk moves to the open position.

These valves will be tested during refueling shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 14

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-2918	C	2
*-2921	C	2
*-2919	C	2
*-2922	C	2
*-2920	C	2
*-2923	C	2
*-890A	C	2
*-890B	C	2

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Provides flow from Containment Spray spray pumps to Containment Spray header and onto the Emergency Containment Filters.

D. RELIEF REQUESTED

Relief is requested from testing during normal plant operation.

E. BASIS FOR RELIEF

Functional testing of these redundant valves by placing the containment spray system in operation would result in dousing the components located inside the containment building. Testing these redundant valves by connecting an external water source to the containment spray system would also result in dousing the components located insid e the containment building.

F. ALTERNATIVE TESTING

Each of these redundant check valves will be disassembled to inspect the valves internals and to physically verify the valves freedom of motion to the open and closed position, at least once each 120 month Inservice Inspection Interval. These valves will be grouped by size, type and function. One valve in each group will be inspected during each refueling shutdown. Any problems found during this inspection would be cause for inspecting all other valves in the group. This provides for an inspection of at least one valve in each group during refueling shutdowns over the 120 month

RELIEF REQUEST NO. 14 CONTINUED

Inservice Inspection Interval.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 15

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-874A	C	1
*-874B	C	1

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Provides High Pressure Safety Injection flow from the alternate High Head Safety Injection to Hot Legs. These valves also perform a Pressure Isolation function (see Relief Request, " Various number 3").

D. RELIEF REQUESTED

Relief is requested from testing during normal plant operation.

E. BASIS FOR RELIEF

These valves cannot be tested during plant operation because the High Pressure Safety Injection pumps do not develop sufficient discharge head to establish a flow path to the Reactor Coolant System.

Further, testing of these valves during cold shutdown is impractical since it could subject the Reactor Coolant System to conditions exceeding Pressure-Temperature limits. Physical inspection of these valves is impractical due to their design which would require valve replacement after dissassembly.

F. ALTERNATIVE TESTING

These valves will be tested during refueling shutdowns. Sufficient flow will be passed through these valves demonstrating that the required safety function is accomplished. The flow required to demonstrate the safety function will be based on a written evaluation being prepared by the NSSS vendor.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 16

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-873A	A/C	1
*-873B	A/C	1
*-873C	A/C	1

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Provide flow from the High Head Safety Injection System to the Reactor Coolant System Cold Legs. Also perform a Pressure Isolation function. (see Relief Request,"Various number 3")

D. RELIEF REQUESTED

Relief is requested from testing during normal plant operation.

E. BASIS FOR RELIEF

These valves cannot be tested during operation because the High Pressure Safety Injection pumps do not develop sufficient discharge head to establish a flow path to the Reactor Coolant System.

Further, testing of these valves during cold shutdown is impractical since it could subject the Reactor to conditions exceeding Pressure-Temperature limits.

F. ALTERNATIVE TESTING

These valves will be tested during refueling shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 17

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-875D	C	1
*-875E	C	1
*-875F	C	1

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Provide flow from the Accumulator Safety Injection system to the Reactor Coolant system cold legs.

D. RELIEF REQUESTED

Relief is requested from testing during normal plant operation.

E. BASIS FOR RELIEF

These valves cannot be tested during operation because the Accumulator pressure is insufficient to provide the differential pressure required to establish a flow path to the Reactor Coolant System.

Further, testing of these valves during cold shutdown is impractical since it could subject the Reactor Coolant System to conditions exceeding Pressure-Temperature limits.

F. ALTERNATIVE TESTING

These valves will be part stroke tested during refueling shutdowns. In addition these valves will be inspected per Relief Request number 22.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 18

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER CATEGORY CLASS

B. SECTION XI REQUIREMENTS

C. FUNCTION

D. RELIEF REQUESTED

E. BASIS FOR RELIEF

F. ALTERNATIVE TESTING

G. IMPLEMENTATION SCHEDULE

THIS REQUEST FOR RELIEF IS WITHDRAWN

RELIEF REQUEST NO. 19

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
3-879A	C	2
3-879B	C	2
4-879C	C	2
4-879D	C	2

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Provides flow from the Associated High Head Safety Injection System Pump to the Reactor Coolant system.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

These valves cannot be tested during plant operation because the High Pressure Safety Injection System Pumps do not develop sufficient discharge head to establish a flow path to the Reactor Coolant System.

Further, testing of these valves during cold shutdown is impractical since it could subject the Reactor Coolant System to conditions exceeding Pressure-Temperature limits.

F. ALTERNATIVE TESTING

These check valves will be Full Stroke Exercised during refueling shutdowns.

In addition, these check valves will be part strok exercised quarterly during the performance of associated pump tests with flow through the High Pressure Safety Injection System test line.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 20

A. COMPONENT/SYSTEM SAFETY INJECTION

VALUE IDENTIFICATION NUMBER CATEGORY CLASS

B. SECTION XI REQUIREMENTS

C. FUNCTION

D. RELIEF REQUESTED

E. BASIS FOR RELIEF

F. ALTERNATIVE TESTING

G. IMPLEMENTATION SCHEDULE

THIS REQUEST FOR RELIEF IS WITHDRAWN

[illegible]

RELIEF REQUEST NO. 21

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
MOV-*-856A	B	2
MOV-*-856B	B	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Isolation valves for High Pressure Safety Injection System test line Return to the Refueling Water Storage Tank (RWST).

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation.

E. BASIS FOR RELIEF

The failure of either of these valves in the non-open position, by testing during either dual unit operation or single unit operation, would result in the isolation of the minimum flow recirculation from at least two High Pressure Safety Injection pumps. The isolation of the minimum recirculation flow path, concurrent with a Safety Injection Signal and High Pressure in the reactor coolant system, would result in damage to the associated High Pressure Safety Injection pumps.

F. ALTERNATIVE TESTING

These valves will be tested during refueling shutdowns of the associated unit when the High Pressure Safety Injection System pumps are aligned to the RWST of the operating unit.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 22

A. COMPONENT/SYSTEM SAFETY INJECTION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS	
1. *-876B	A/C	1	LOW HEAD SAFETY INJ
2. *-876C	A/C	1	LOW HEAD SAFETY INJ
3. *-875A	A/C	1	LOW HEAD SAFETY INJ
4. *-875B	A/C	1	LOW HEAD SAFETY INJ
5. *-875C	A/C	1	LOW HEAD SAFETY INJ
6. *-876D	A/C	1	ALT LOW HEAD SI
7. *-876E	A/C	1	ALT LOW HEAD SI
8. *-875D	C	1	ACCUMULATOR
9. *-875E	C	1	DISCHARGE
10. *-875F	C	1	CHECK VALVES

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Valves 1 through 12 provide flow from the accumulator. Safety Injection system and High /Low and alternate Safety Injection systems to the Hot and Cold legs of the Reactor Coolant system.

D. RELIEF REQUESTED

Relief is requested from exercising during normal plant operation. Full stroke verification is also not possible per alternate tests proposed in Relief Request numbers 7, 8, 9, and 17.

E. BASIS FOR RELIEF

As indicated in Relief Request numbers 7, 8, 9 and 15, check valves *-876B and C are tested together since the two parallel lines associated with these valves do not contain individual Isolation valves.
Valves *-875B and C, which are in series with *-876B and C respectively, are also tested together since their two parallel lines do not contain individual isolation valves.
One other set of valves in this system, *-876D and E is also tested together due to similar Lack of isolation valves.
In order to reliably test each valve major system modifications would be required at a significant cost.

[illegible]

RELIEF REQUEST NO. 22 CONTINUED

Check valves *-875D, E, and F are only part stroke tested during refuelings and *-875A, is only part stroke tested during cold shutdowns. In order to full stroke test these valves Major system modifications would be required at significant cost to FPL.

F. ALTERNATIVE TESTING

All valves included in this Relief Request are currently tested as described in Relief Requests 7, 8, 9, and 17. In addition, in order to verify full stroke capability each valve will be disassembled to inspect the valves internals and to physically verify the valves freedom of motion to the open and closed position, at least once each 120 month Inservice Inspection Interval. These valves will be grouped by size, type and function. One valve in each group will be inspected during each refueling shutdown. Any problems found during this inspection would be cause for inspecting all other valves in the group. This provides inspection of at least one valve in each group during Refueling Shutdowns, over the 120-Month Inservice Inspection Interval.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 1

A. COMPONENT/SYSTEM SAMPLING

VALVE IDENTIFICATION NUMBER CATEGORY CLASS

B. SECTION XI REQUIREMENTS

C. FUNCTION

D. RELIEF REQUESTED

E. BASIS FOR RELIEF

F. ALTERNATIVE TESTING

G. IMPLEMENTATION SCHEDULE

THIS REQUEST FOR RELIEF IS WITHDRAWN

RELIEF REQUEST NO. 2

A. COMPONENT/SYSTEM SAMPLING

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
SV-*-6427A	A	2
SV-*-6427B	A	2
SV-*-6428	A	2

B. SECTION XI REQUIREMENTS

IWV-3300

C. FUNCTION

Provides the flow path from the Reactor Coolant System to the Sample System.

D. RELIEF REQUESTED

Relief is requested from valve position indication verification.

E. BASIS FOR RELIEF

These self contained, completely enclosed solenoid valves have no external valve position indicators. Therefore, observations of valve position is impractical.

F. ALTERNATIVE TESTING

These valves will be tested by connecting an external air supply with sufficient air pressure to verify the main disk moves to the open position or by verifying sample flow at least once every 2 years.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 1

A. COMPONENT/SYSTEM MAIN STEAM

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
POV-*-2604	C	2
POV-*-2605	C	2
POV-*-2606	C	2

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Provides the flow path from the associated steam generator to the main steam line header.

D. RELIEF REQUESTED

Relief is requested from exercising these valves during normal plant operation.

E. BASIS FOR RELIEF

Testing any one of these valves during plant operation would isolate the associated steam generator from the main steam line header which would result in a reactor trip.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdown.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 2

A. COMPONENT/SYSTEM MAIN STEAM

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-004	C	2
*-005	C	2
*-006	C	2

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Provides the flow path from the associated steam generator to the main steam line header.

D. RELIEF REQUESTED

Relief is requested from exercising these valves during normal plant operation.

E. BASIS FOR RELIEF

The design, fabrication, arrangement, and installation of this valve does not provide for testing this valve.

F. ALTERNATIVE TESTING

Each of these check valves will be disassembled, to inspect the valve internals and to physically verify freedom of motion in the open and closed position, at least once each 120 month Inservice Inspection Interval. This inspection will be performed during refueling shutdowns. Any problems found during this inspection would be cause for inspecting the other check valves.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 1

A. COMPONENT/SYSTEM CONDENSATE and FEEDWATER

VALVE IDENTIFICATION NUMBER CATEGORY CLASS

B. SECTION XI REQUIREMENTS

C. FUNCTION

D. RELIEF REQUESTED

E. BASIS FOR RELIEF

F. ALTERNATIVE TESTING

G. IMPLEMENTATION SCHEDULE

THIS REQUEST FOR RELIEF IS WITHDRAWN

RELIEF REQUEST NO. 2

A. COMPONENT/SYSTEM CONDENSATE and FEEDWATER

VALVE IDENTIFICATION NUMBER CATEGORY CLASS

B. SECTION XI REQUIREMENTS

C. FUNCTION

D. RELIEF REQUESTED

E. BASIS FOR RELIEF

F. ALTERNATIVE TESTING

G. IMPLEMENTATION SCHEDULE

THIS REQUEST FOR RELIEF IS WITHDRAWN

RELIEF REQUEST NO. 3

A. COMPONENT/SYSTEM CONDENSATE and FEEDWATER

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
CV-*-2900	C	2
CV-*-2901	C	2
CV-*-2902	C	2

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Prevents reverse flow from the associated steam generator to the feedwater system.

D. RELIEF REQUESTED

Relief is requested from exercising these valves during normal plant operation.

E. BASIS FOR RELIEF

Testing anyone of these valves, during plant operation would cause an interruption of feedwater flow to the associated steam generator; thereby, placing the plant in an unsafe mode of operation.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdown.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 4

A. COMPONENT/SYSTEM CONDENSATE and FEEDWATER

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
CV-*-2816	B	2
CV-*-2817	B	2
CV-*-2818	B	2
CV-*-2831	B	2
CV-*-2832	B	2
CV-*-2833	B	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provide a flow path from the Auxiliary Feedwater Pump Discharge Header to Steam Generator *A, *B, or *C.

D. RELIEF REQUESTED

Relief is requested from stroke time testing of these valves during normal plant operation.

E. BASIS FOR RELIEF

These valves are flow controlled modulating valves, therefore, valve stroke-time testing of this individual component is not essential to fulfill their safety related function. The valve safety function of modulating to the required open position to deliver flow to each steam generator is verified monthly in performance of the AFW system operability test.

F. ALTERNATIVE TESTING

Exercising these valves monthly will demonstrate that the moving parts of the valve function satisfactorily. The integrated system test for all components within AFW will verify that the control valves perform their safety function in the required time.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 5

A. COMPONENT/SYSTEM CONDENSATE and FEEDWATER

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
FCV-*-478	B	2
FCV-*-488	B	2
FCV-*-498	B	2
FCV-*-479	B	2
FCV-*-489	B	2
FCV-*-499	B	2

B.SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

The Feedwater flow Control valves and Bypass Feedwater flow Control valves must isolate Feedwater to Steam Generators in response to a Main Steam Line Break accident and receive signals to do so in response to changing system parameters.

D. RELIEF REQUESTED

Relief is requested from stroke time testing of these valves during normal plant operation.

E. BASIS FOR RELIEF

Testing any of these valves during plant operation would cause interruption of Feedwater to the Steam Generators followed by Steam Generator level transients and possible Reactor trip. This test is impractical during plant operation.

F. ALTERNATIVE TESTING

These valves will be tested during Cold Shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 6

A. COMPONENT/SYSTEM CONDENSATE and FEEDWATER

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
SV-*-6275 A-1	B	2
SV-*-6275 B-1	B	2
SV-*-6275 C-1	B	2

B. SECTION XI REQUIREMENTS

IWV-3300

C. FUNCTION

These valves are the bypass blowdown isolation valves. They Isolate on a Phase "A" containment Isolation signal.

D. RELIEF REQUESTED

Relief is requested from valve position indication verification.

E. BASIS FOR RELIEF

These 0.75 inch Solenoid Operated Globe valves are self contained, completely enclosed valves. They have no external valve position indicators. Due to these considerations, It is impractical to observe valve position.

F. ALTERNATIVE TESTING

These valves will be exercise tested quarterly to verify their operability. This testing includes stroke timing to the closed position and is conducted often enough to be able to detect any anomalies in remote position indication.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 1

A. COMPONENT/SYSTEM INSTRUMENT AIR (LUBE OIL, SERVICE AND INSTRUMENT AIR)

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-40-336	AC	2
*-40-340A	AC	2

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Prevents reverse flow from instrument air system inside containment, to the Instrument Air system located outside containment.

D. RELIEF REQUESTED

Relief is requested from exercising these valves during normal plant operation.

E. BASIS FOR RELIEF

Testing these valves during plant operation would interrupt the instrument air supply to the components located inside containment that require instrument air for proper operation; thereby, placing the plant in an unsafe mode of operation.

Testing either of these valves during cold shutdown would interrupt the instrument air supply to the components located inside containment that require instrument air to maintain the plant in a safe shutdown condition; thereby, placing the plant in an unsafe mode of operation.

F. ALTERNATIVE TESTING

These valves will be tested at least once every 2 years.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 1

A. COMPONENT/SYSTEM DIESEL OIL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
SV-3522A	B	3
SV-3522B	B	3

B. SECTION XI REQUIREMENTS

IWV-3413

C. FUNCTION

Provides the flow path from the emergency diesel-Generator Diesel Oil Day Tanks to the skid-mounted Diesel Oil Tank.

D. RELIEF REQUESTED

Relief is requested from stroke time measurement for these valves.

E. BASIS FOR RELIEF

These self-contained, completely enclosed solenoid valves have no external valve position indicators. Therefore, stroke-time measurements and valve position verification is impractical.

F. ALTERNATIVE TESTING

An increase in level in the skid-mounted Diesel Oil Tank while exercising these valves quarterly will demonstrate that the moving parts of the valve function satisfactorily.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 2

A. COMPONENT/SYSTEM DIESEL OIL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
CV-2046A	B	3
CV-2046B	B	3

B. SECTION XI REQUIREMENTS

IWV-3413

C. FUNCTION

Provides the flow path from the emergency diesel-Generator Diesel Oil Transfer Pump Discharge Header to the Diesel Oil Tanks.

D. RELIEF REQUESTED

Relief is requested from stroke time testing.

E. BASIS FOR RELIEF

These Solenoid Powered Control Valves are actuated from level switches located on the associated Day Tank. The valves have no remote position indication, therefore, stroke time measurements and valve position verification is impractical.

F. ALTERNATIVE TESTING

An increase in level in the Diesel Oil Tank while exercising these valves quarterly will demonstrate the moving parts of the valve function satisfactorily.

The Day Tanks have sufficient capacity to allow for maintenance on the valve, if the valve should fail closed.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 3

A. COMPONENT/SYSTEM DIESEL OIL

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
SV-2051 A	B	3
SV-2051 B	B	3

B. SECTION XI REQUIREMENTS

IWV-3413

C. FUNCTION

Provides the flow path from the Diesel Oil Storage Tank to the Diesel Oil Day Tank.

D. RELIEF REQUESTED

Relief is requested from stroke time testing these valves.

E. BASIS FOR RELIEF

These self-contained, completely enclosed solenoid valves have no external valve position indicators. Therefore, stroke-time measurements and valve position verification is impractical.

F. ALTERNATIVE TESTING

An increase in level in the Diesel Oil Day Tank while exercising these valves quarterly will demonstrate the moving parts of the valve function satisfactorily.

Further, there is sufficient capacity in the Diesel Oil Day Tanks to allow for maintenance on the valve, if the valve should fail closed.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 1

A. COMPONENT/SYSTEM PRIMARY MAKE-UP AND CONTAINMENT COOLING WATER

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
MOV-*-1417	B	2
MOV-*-1418	B	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides the component cooling water supply (MOV-*-1407) and return (MOV-*-1408) flow paths for normal containment coolers, the control rod drive mechanism coolers, and the primary shield cooling coils.

D. RELIEF REQUESTED

Relief is requested from exercising these valves during Normal Plant operation.

E. BASIS FOR RELIEF

Testing either of these valves during plant operation would cause interruption of cooling water to the normal containment cooler, the control rod drive mechanism coolers, and the primary shield cooling coils. This action could result in damage to the control rod drive mechanisms and associated equipment; thereby, placing the plant in an unsafe mode of operation.

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 1

A. COMPONENT/SYSTEM CONTAINMENT VENTILATION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
HV-*-1	A	2
HV-*-2	A	2
PAHM-*-002A	A	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides redundant flow paths to Post Accident Hydrogen Monitoring and Control System.

D. RELIEF REQUESTED

Relief is requested from testing during normal plant operation.

E. BASIS FOR RELIEF

The failure of either of these valves in the non-closed position, by testing during plant operation, would result in a loss of containment integrity per Technical Specification (3.3).

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 2

A. COMPONENT/SYSTEM CONTAINMENT VENTILATION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
HV-*-3	A	2
HV-*-4	A	2
PAHM-*-002b	A	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides redundant flow paths to Post Accident Hydrogen Monitoring and Control System.

D. RELIEF REQUESTED

Relief is requested from exercising these valves during normal plant operation.

E. BASIS FOR RELIEF

The failure of either of these valves in the non-closed position, by testing during plant operation, would result in a loss of containment integrity per Technical Specification (3.3).

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 3

A. COMPONENT/SYSTEM CONTAINMENT VENTILATION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-11-003	AC	2

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Prevents reverse flow from the containment atmosphere to the containment gas and particulate radioactivity detection system.

D. RELIEF REQUESTED

Relief is requested from exercise testing this valve during normal plant operation.

E. BASIS FOR RELIEF

Plant Technical Specification 3.1.3 requires two independent systems to monitor reactor coolant system leakage; one of which has to be sensitive to radioactivity. Testing this valve during plant operation would cause an interruption of the Reactor Coolant System Leak Detection System which is sensitive toradioactivity.

Similarily, testing this valve during cold shutdown would result in an interruption of the Detection System which is sensitive to radioactivity.

F. ALTERNATIVE TESTING

These valves will be tested closed by seat leak testing at least once every 2 years.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 4

A. COMPONENT/SYSTEM CONTAINMENT VENTILATION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
PAHM-*-001A	A	2
PAHM-*-001B	A	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides redundant flow paths to Post Accident Hydrogen Monitoring and Control System.

D. RELIEF REQUESTED

Relief is requested from exercise testing these valves during normal plant operation.

E. BASIS FOR RELIEF

The failure of either of these valves in the non-closed position, by testing during plant operation, would result in a loss of containment integrity per Technical Specification (3.3).

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 5

A. COMPONENT/SYSTEM CONTAINMENT VENTILATION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
SV-*-2911	A	2
SV-*-2913	A	2
SV-*-2912	A	2

B. SECTION XI REQUIREMENTS

IWV-3300

C. FUNCTION

Provides flow path from the containment atmosphere to the containment gas and particulate radioactivity detection system and return to containment.

D. RELIEF REQUESTED

Relief is requested from valve position indication verification.

E. BASIS FOR RELIEF

These self-contained, completely enclosed solenoid valves have no external valve position indicators. Therefore, direct observation of valve position indication is impractical.

F. ALTERNATIVE TESTING

These redundant valves will be tested by connecting an external air supply with sufficient air pressure to verify the main disk moves to the open position.

These valves will be tested during refueling shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 6

A. COMPONENT/SYSTEM CONTAINMENT VENTILATION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-40-204	A	2
HV-*-17	A	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Provides the flow path for the Service Air Supply or the Hydrogen Recombiner Return to the containment.

D. RELIEF REQUESTED

Relief is requested from exercise testing during normal plant operation.

E. BASIS FOR RELIEF

The failure of either of these valves in the non-closed position, by testing during plant operation, would cause a loss of containment integrity requiring a plant shutdown per Technical Specification (3.3).

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 7

A. COMPONENT/SYSTEM CONTAINMENT VENTILATION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-40-205	AC	2

B. SECTION XI REQUIREMENTS

IWV-3520

C. FUNCTION

Prevents reverse flow from the containment atmosphere to the Service Air System located outside containment.

D. RELIEF REQUESTED

Relief is requested from exercise testing during normal plant operation.

E. BASIS FOR RELIEF

The failure of this valve in the non-closed position, by testing during plant operation, would cause a loss of containment integrity requiring a plant shutdown per Technical Specification (3.3).

F. ALTERNATIVE TESTING

This valve will be tested during cold shutdowns and leak tested at refueling shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 8

A. COMPONENT/SYSTEM CONTAINMENT VENTILATION

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
POV-*-2600	A	2
POV-*-2601	A	2
POV-*-2602	A	2
POV-*-2603	A	2

B. SECTION XI REQUIREMENTS

IWV-3410

C. FUNCTION

Containment Purge Air Supply (POV-*-2600 & POV-*-2601) and exhaust (POV-*-2602 & POV-*-2603) valves.

D. RELIEF REQUESTED

Relief is requested from exercise testing during normal plant operation.

E. BASIS FOR RELIEF

The failure of any one of these valves in the non-closed position, by testing during plant operation, would result in a loss of containment integrity requiring a plant shutdown per Technical Specification (3.3).

F. ALTERNATIVE TESTING

These valves will be tested during cold shutdowns.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 1

A. COMPONENT/SYSTEM VARIOUS

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
VARIOUS	VARIOUS	VARIOUS

B. SECTION XI REQUIREMENTS

IWV-3417
IWV-3427
IWV-3523
IWP-3230

C. FUNCTION

VARIOUS

D. RELIEF REQUESTED

See basis

E. BASIS FOR RELIEF

Paragraph Nos. IWV-3417, IWV-3427, IWV-3523, and IWP-3230 prescribe actions to be taken, limiting time periods for actions to be completed, or limiting conditions for operability if certain conditions are not met. This could be in conflict with the PLant Technical Specifications. In addition, certain CODE definitions or terminology may be in conflict with the Plant Technical Specifications.

F. ALTERNATIVE TESTING

Corrective Action - Where a valve or pump fails to meet the requirements of the program and/or the reference CODE; the condition(s) shall be reviewed by the Plant Nuclear Safety Committee (PNSC) for disposition and determination of whether it involves an unreviewed safety question prior to commencing with plant startup or continuing with plant operation.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

[illegible]

RELIEF REQUEST NO. 2

A. COMPONENT/SYSTEM VARIOUS

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
CV-*-519B	A	2
CV-*-522A	A	2
CV-*-522B	A	2
CV-*-522C	A	2
HV-*-1	A	2
HV-*-3	A	2
CV-*-4659A	A	2
POV-*-2601	A	2
POV-*-2603	A	2
CV-*-4668A	A	2
MOV-*-860A	A	2
*-10-582	A	2
MOV-*-860B	A	2
MOV-*-872	A	2

B. SECTION XI REQUIREMENTS

IWV-3423
IWV-3424

C. FUNCTION

These valves provide for containment isolation.

D. RELIEF REQUESTED

Relief is requested from seat leakage measurement requirements of IWV-3423, 3424.

E. BASIS FOR RELIEF

The containment isolation valves identified above are tested by pressurizing the piping or ducting between two or more valves installed in the associated containment penetration. This will result in performing the CODE Category A, valve seat leakage test in the reverse direction from that specified in IWV-3423, on one or more of the valves installed in the associated containment penetration.

F. ALTERNATIVE TESTING

Continue to perform the CODE Category A valve seat leakage test by pressurizing the piping or ducting between two or more valves installed in the associated containment penetration.

RELIEF REQUEST NO. 2 CONTINUED

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

RELIEF REQUEST NO. 3

A. COMPONENT/SYSTEM VARIOUS

VALVE IDENTIFICATION NUMBER	CATEGORY	CLASS
*-873A	AC	2
*-874A	AC	2
*-875A	AC	2
*-876A	AC	2
*-876D	AC	2
*-873B	AC	2
*-874B	AC	2
*-875B	AC	2
*-876B	AC	2
*-876E	AC	2
*-873C	AC	2
*-875C	AC	2
*-876C	AC	2

B. SECTION XI REQUIREMENTS

IWV-3420

C. FUNCTION

These valves provide for reactor coolant pressure isolation between the High Pressure Safety Injection System, Low Pressure Safety Injection System, and Residual Heat Removal System.

D. RELIEF REQUESTED

Relief is requested from leak test requirements of IWV-3420

E. BASIS FOR RELIEF

These valves are required to be tested in accordance with Plant Technical Specification 4.17.

F. ALTERNATIVE TESTING

Continue testing these valves in accordance with Plant Technical Specification 4.17.

G. IMPLEMENTATION SCHEDULE

SECOND INSPECTION INTERVAL

5.0 10 CFR 50 APPENDIX J

5.1 APPENDIX J TESTING

Primary reactor containments shall meet the containment leakage test requirements set forth in Appendix J. These tests requirements provide for periodic verification by tests of the leak-tight integrity of the primary reactor containment, and system and components which penetrate containment and the establishment of the acceptance criteria for such tests. The purpose of the tests are to assure that

a. leakage through the primary reactor containment and systems and components penetrating primary containment shall not exceed allowable leakage rate values as specified by FPL, and 10 CFR 50 Appendix J.

b. periodic surveillance of reactor containment penetrations and isolation valves is performed.

5.2 SEAT LEAKAGE

Seat leakage test parameters are determined in accordance with FPL requirements.

Seat leakage rates are based on air tests:

49.9 PSI = Delta - P at Pa

Where:

Pa = Accident Pressure

5.3 CONTAINMENT ISOLATION VALVES

Containment isolation valve means any valve which is relied upon to perform a containment isolation function.

Table No. 5.1-1 through 5.1-3 provide a listing of those containment isolation valves tested to Appendix J,10 CFR 50 requirements.

TABLE NO. 5.1-1
CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION NUMBER	SERVICE	VALVE NUMBER(S)
5	GAS ANALYZER SAMPLE PRT	CV-*-516 SV-*-6385
6	NITROGEN SUPPLY TO PRT	*-518 *-519
7	PW SUPPLY TO PRT AND RCP STANDPIPES	CV-*-519A CV-*-519B CV-*-522A CV-*-522B CV-*-522C
8	SAMPLE PRZ STEAM SPACE	CV-*-951 CV-*-956A
9	SAMPLE PRZ LIQUID SPACE	CV-*-953 CV-*-956B
10	VENT & N2 SUPPLY FOR RCDT	PCV-*-1014 CV-*-4658A CV-*-4658B *-4656
11	ALT. LOW HEAD SAFETY INJ.	MOV-*-872
14	LETDOWN FROM REACTOR COOLANT SYSTEM	CV-*-200A CV-*-200B CV-*-200C CV-*-204
15	CHARGING TO REACTOR COOLANT SYSTEM	HCV-*-121 *-333 *-312C
16	POST ACCIDENT HYDROGEN CONTROL SYSTEM	HV-*-1 HV-*-2 PAHM-*-002A
17	SIS TEST LINE	*-895V
19A	CONTAINMENT SPRAY SYSTEM	MOV-*-880A *-890A
19B		MOV-*-880B *-890B

TABLE NO. 5.1-2
CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION NUMBER	SERVICE	VALVE NUMBER(S)
20	REACTOR COOLANT SYSTEM SAMPLE	SV-*-6427A(955A) SV-*-6427B(955B) SV-*-6428 (956C)
23	CONTAINMENT SUMP DISCHARGE	CV-*-2821 CV-*-2822
24A 24B 24C	RCP SEAL INJECTION SUPPLY	*-298A *-298B *-298C
25	RCP SEAL LEAKOFF RETURN	MOV-*-381 MOV-*-6386
29	INSTRUMENT AIR SUPPLY	*-40-336 *-40-340A
30	BREATHING AIR SYSTEM	CV-*-6165 *-BA-201
31	RCDT GAS ANALYZER SAMPLE	CV-*-4659A CV-*-4659B
32	CONTAINMENT AIR SAMPLE RETURN	SV-*-2912 *-11-003 PAHM-*-001B PAHM-*-001A
33	CONTAINMENT AIR SAMPLE	SV-*-2911 SV-*-2913
34	POST ACCIDENT HYDRGEN CONTROL SYSTEM	HV-*-17 *-40-204 *-40-205
35	CONTAINMENT PURGE SUPPLY	POV-*-2600 POV-*-2601
36	CONTAINMENT PURGE EXHAUST	POV-*-2602 POV-*-2603
42	NITROGEN SUPPLY TO ACCUMULATORS	CV-*-855 *-945E

TABLE NO. 5.1-3
CONTAINMENT ISOLATION VALVES

CONTAINMENT PENETRATION NUMBER	SERVICE	VALVE NUMBER(S)
47	PW SUPPLY TO WASH HEADER	*-10-567 *-10-582
52	RCDT PUMP DISCHARGE	CV-*-4668A CV-*-4668B
51 PTN-4 53 PTN-3	POST ACCIDENT HYDROGEN CONTROL SYSTEM	HV-*-3 HV-*-4 PAHM-*-002B
54A 54B	CONTAINMENT RECIRCULATION SUMP A AND B	MOV-*-860A MOV-*-861A MOV-*-860B MOV-*-861B
55	ACCUMULATOR SAMPLE	CV-*-955C CV-*-955D CV-*-955E CV-*-956D
61B	PRZ DEADWEIGHT TESTER	*-2023 *-2024
63	INSTRUMENT AIR BLEED	CV-*-2819 CV-*-2826
65B	ILRT TEST CONNECTION	*-2025
65C	ILRT TEST CONNECTION	*-2026

6.0 REACTOR COOLANT SYSTEM PRESSURE ISOLATION VALVES

Table No. 6.1 identifies those Reactor Coolant system pressure Isolation valves and the maximum allowable leakage rates for each of the valves listed.

TABLE NO. 6.1
REACTOR COOLANT SYSTEM PRESSURE ISOLATION VALVES

SYSTEM	VALVE NUMBER	MAXIMUM (a) (b) ALLOWABLE LEAKAGE -gpm
HIGH HEAD SAFETY INJECTION		
LOOP A, HOT LEG	*-874A	5.0
COLD LEG	*-875A	5.0
COLD LEG	*-873A	5.0
LOOP B, HOT LEG	*-874B	5.0
COLD LEG	*-875B	5.0
COLD LEG	*-873B	5.0
LOOP C, COLD LEG	*-875C	5.0
COLD LEG	*-873C	5.0
RESIDUAL HEAT REMOVAL		
LOOP A, COLD LEG	*-876A	5.0
	4-876E	
LOOP B, COLD LEG	*-876B	5.0
	*-876D	5.0
LOOP C, COLD LEG	*-876C	5.0
	3-876E	5.0
LOOP A, HOT LEG	MOV-*-750	5.0
	MOV-*-751	5.0

NOTES:
MAXIMUM (a)(b) ALLOWABLE LEAKAGE - gpm

(a) 1. Leakage rates less than or equal to 1.0 gpm are considered acceptable.
2. Leakage rates greater than 1.0 gpm but less than or equal to 5.0 gpm are considered acceptable if the latest measured rate has not exceeded the previous test by an amount that reduces the margin between measured leakage rate and the maximum permissible rate of 5.0 gpm by 50% or greater.
3. Leakage rates greater than 1.0 gpm but less than or equal to 5.0 gpm are considered unacceptable if the latest measured rate exceeded the rate determined by the previous test by an amount that reduces the margin between measured leak rate and the maximum permissible rate of 5.0 gpm by 50% or greater.
4. Leakage rates greater than 5.0 gpm are considered unacceptable.

(b) Minimum differential test pressure shall be not less than 150 psid.

7.0 PIPING AND INSTRUMENTATION DIAGRAMS

Pumps and Valves that require inservice testing in accordance with IWP and IWV are referenced to the specific Plant piping and instrumentation diagrams. The Pump and Valve testing tables include the coordinates for locating each pump and valve included within this program.
The attached list includes those P & IDs that are applicable to the Pump and Valve Program.

[illegible]

TABLE 7.1
PIPING & INSTRUMENTATION DRAWINGS

DRAWING NUMBER	REV NO.	SHEETS	TITLE
5610-M-420-3 (FPL NO. F-503184	8 7	3	CHEMICAL & VOLUME CONTROL SYSTEM
5610-M-470-5 (FPL NO. E-503185	8 7	4	SAFETY INJECTION SYSTEM
5610-M-450-57 (FPL NO. F-503187	9 7	3	AUXILIARY COOLANT SYSTEM COMPONENT COOLING
5610-M-450-57 (FPL NO. F-503188	9 7	4	AUXILIARY COOLANT SYSTEM COMPONENT COOLING
5610-M-500-27 (FPL NO. F-503189	9 8	2	WASTE DISPOSAL SYSTEM
5610-M-410-91 (FPL NO. F-503191	7 6	2	REACTOR COOLANT SYSTEM
5610-M-480-1 (FPL NO. F-503193	9 7	1	SAMPLING SYSTEM
5610-M-450-53 (FPL NO. F-503194	8 6	1	AUXILIARY COOLANT SYSTEM RESIDUAL HEAT REMOVAL
5610-M-450-54 (FPL NO. F-503195	6 4	1	AUXILIARY COOLANT SYSTEM SPENT FUEL PIT COOLING SYSTEM
5610-M-1 (FPL NO. F-502027	14 14	1	STEAM SYSTEM
5610-M-2 (FPL NO. F-502028	18 15	1	CONDENSATE AND FEEDWATER SYSTEM
5610-M-4 (FPL NO. F-502030	18 14	1	LUBE OIL SERVICE AND INSTRUMENT AIR
5610-M-5 (FPL NO. F-502031	17 14	1	CIRCULATING WATER, SALT WATER AND CHLORMATION SYSTEMS (INTAKE COOLING WATER SYSTEM
5610-M-7 (FPL NO. F-502033	10 8	1	DIESEL OIL
5610-M-10 (FPL NO. F-502036	18 14	1	FIRE, PRIMARY MAKE-UP, CONTAINMENT COOLING WATER & CHEMICAL INJECTION

TABLE 7.1

_PIPING & INSTRUMENTATION DRAWINGS

DRAWING NUMBER	REV NO.	SHEETS	TITLE
5610-M-11 (FPL NO. F-502037	11 10	1	CONTAINMENT VENTILATION SYSTEM
5610-M-12 (FPL NO. F-502038	9 10	1	CONTAINMENT AND RADWASTE DRAINS AND VENTS
(5177-074-M-2	6	1	BREATHING AIR SYSTEMS

NOTE: FPL drawing number shown in parentheses has been superseded by the architect engineer number.

8.0 RECORDS

8.1 PUMP RECORDS IWP-6000

Records of Inservice Tests will be developed and maintained in accordance with IWP-6000 of the ASME Boiler and Pressure Vessel Code.

8.1.1 SUMMARY LISTING IWP-6210

A list of pumps shall be maintained to record the current status of the test program. When the quantities measured during the test are within the acceptable range of Table No 2.2, Only the date of the successful test is required to be listed.

8.1.2 PUMP RECORDS IWP-6220

FPL shall maintain a record, which will include the following, for each pump covered by this program.

a. the manufacturer and the manufacturer's model and serial or other identification number.

b. a copy or summary of the manufacturer's acceptance test report, if available.

8.1.3 INSERVICE TEST PLANS IWP-6230

The test plans shall include the following:

a. the hydraulic circuit to be used

b. the location and type of measurement for each of the required test quantities

c. the reference values (Table 2.1), limits of Pi and Tb (Table 2.2), and any other values required.

8.1.4 RECORDS OF TESTS IWP-6240

The records shall include the following:

a. date of test

b. measured and observed quantities

c. identification of instruments used

d. comparisons with allowable ranges of test values and analysis of deviations

[illegible]

e. requirements for corrective action

f. signature of the person or persons responsible for conducting and analyzing the test

8.1.5 RECORDS OF CORRECTIVE ACTION IWP-6250

The record shall include a summary of the corrections made and the subsequent inservice test and confirmation of operational adequacy, and the signature of the individual responsible for corrective action and verification of results.

8.2 VALVE RECORDS IWV-6000

8.2.1 SUMMARY LISTING IWV-6210

A list of valves shall be maintained to record the current status of the test program.

8.2.2 PRESERVICE TESTS IWV-6220

Preservice test results and manufacturer's functional test results shall be included in the documentation, When available.

8.2.3 TEST RESULTS IWV-6230

The record of test results shall include the dated signature of the person responsible for the action.

[illegible]

9.0 INSERVICE TESTING PROGRAM

9.1 PROGRAM PLAN TABLES

9.1.1 DESCRIPTION OF TABLES

The Inservice Testing Program Tables for the Inservice testing of the major components of Florida Power and Light, Turkey Point Unit 3/4 Nuclear Power Station will be in a format as described below:

9.1.2 The Program has been divided into sections. Section nine (9), has been divided into two (2) sets of tables. (See figure number 9.1 and 9.2)

9.2 PUMP AND VALVE PROGRAM TABLES

The Inservice Pump Testing tables will provide the following information:

9.2.1 PUMP TESTING TABLES

PUMP NUMBERS - The pump number identification is a unique identification number assigned by the fabricator or the installer.

PUMP DESCRIPTION - The pump description is a brief description of the of the pump system.

CLASS - Identifies the Code Class of the pump

P & ID NUMBER - Defines the piping and instrument drawing that the pump is on.

COORDINATES - Provides the coordinates on a particular P & ID that the pump is located.

TEST PARAMETERS - The next six (6) columns are included to provide the test parameters for the following SPEED, INLET PRESSURE, DIFFERENTIAL PRESSURE, FLOW RATE, VIBRATION and BEARING TEMPERATURE. These columns provide a yes or no remark under each column heading. The number next to the Y or N identifies the Relief Request associated with each parameter if applicable.

RELIEF REQUEST - Identifies by number the request for relief from the code requirements for a specific pump.

REMARKS - This column is provided for input to any additional information applicable to that pump.

FIGURE NUMBER 9.1

PLANT/UNIT	INSERVICE TESTING PROGRAM PUMP TABLES	REVISION NO: DATE: PAGE:

PUMP NO.	DESC	CL	COORD	SPEED	INLET PRES	DIFF PRES	FLOW RATE	VIB	BEAR TEMP	REMARKS
1	2	3	4	5	6:	7:	8:	9	10:	11

1. PUMP IDENTIFICATION NUMBER
2. DESCRIPTION OF PUMP SYSTEM
3. ASME CODE CLASS
4. COORDINATES FOR LOCATION OF THE PUMP ON THE DRAWING

TEST PARAMETERS ARE IDENTIFIED BY A YES OR NO UNDER EACH COLUMN: EXAMPLE (Y:) Y= YES, THE : FOLLOWED BY A NUMBER IS THE RELIEF REQUEST APPLICABLE TO THAT PARAMETER.

5. SPEED
6. INLET PRESSURE
7. DIFFERENTIAL PRESSURE
8. FLOW RATE
9. VIBRATION
10. BEARING TEMPERATURE
11. REMARKS SECTION FOR ANY APPLICABLE ADDITIONAL INFORMATION

9.2.2 VALVE TESTING TABLES

The valve testing tables provide the following information:

P & ID NUMBER - Defines the piping and instrument drawing that the valve is on.

SYSTEM - Identifies the system that each valve is on

VALVE NUMBERS - The valve number identification is a unique identification number assigned by the fabricator or the installer.

COORDINATES - Provides the coordinates on a particular P & ID where that valve is located.

CLASS - Identifies the Code Class of the valve 1, 2, 3

CATEGORY - Identifies the valve category A-B-C (or combination of categories

ACTIVE/PASSIVE - A OR P see Table No. 2.2 (IWV-3700-1

SIZE - Denotes the size of the valve

TYPE - Identifies the type of valve (Globe, Gate, Check, Relief, Ball) etc.

SAFE - SAFETY	S/CHK - STOP CHECK
DIAPH - DIAPHRAGM	POWER - POWER ASSISTED
BUTFY - BUTTERFLY	ASS'T CHECK
	CHECK

ACTUATOR TYPE - Defines the actuator type if applicable.

A/O - AIR OPERATOR
MO - ELECTRIC MOTOR OPERATOR
SO - SOLENOID OPERATOR
S/A - SELF ACTUATED

NORMAL POSITION - Identifies the normal position of the valve

LO - LOCKED OPEN
LC - LOCKED CLOSED
NO - NORMALLY OPEN
NC - NORMALLY CLOSED

FAILURE MODE - Identifies the mode of failure

FO - FAIL OPEN
FC - FAIL CLOSED
FAI - FAIL AS IS

REMOTE POSITION INDICATOR - YES OR NO

EXAM - Identifies the type of examination required

TEST FREQUENCY - Identifies the test frequency associated with each valve

1. REFUELING SHUTDOWN
2. COLD SHUTDOWN
3. OPERATION EVERY 3 MONTHS
4. COLD SHUTDOWN WHEN THE REACTOR COOLANT SYSTEM IS DEPRESSURIZED AND VENTED
5. AT LEAST ONCE EVERY TWO YEARS
6. PRIOR TO RETURN TO SERVICE (IWV-3416)
7. ONCE EVERY 10 YEARS
8. IN ACCORDANCE WITH TABLE IWV-3510-1

RELIEF REQUEST - Identifies by number the request for relief from the code requirements for that valve.

REMARKS - This column is provided for input to any additional information or alternate testing applicable to that valve.

FIGURE NUMBER 9.2

PLANT/UNIT

INSERVICE TESTING PROGRAM
VALVE TABLES

P & ID: 1 SYSTEM: 2

VLV ID	CORD	CLS	CAT	ACT/PAS	SIZE	TYPE	ACT TYPE	NORM POS	FAIL MODE	REM POS IND	EXAM	TEST FREQ	REL REQ	RKKS
3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

1. IDENTIFIES THE APPLICABLE P & ID DRAWING NUMBER
2. IDENTIFIES THE SYSTEM ASSOCIATED WITH EACH VALVE
3. DENOTES THE VALVE IDENTIFICATION NUMBER
4. PROVIDES THE COORDINATES FOR LOCATION OF THE VALVE ON THE DRAWING
5. IDENTIFIES THE CODE CLASS
6. IDENTIFIES THE VALVE CATEGORY
7. DENOTES IF THE VALVE IS ACTIVE OR PASSIVE
8. DENOTES THE SIZE OF EACH VALVE
9. IDENTIFIES THE TYPE OF VALVE
10. IDENTIFIES THE TYPE OF ACTUATOR
11. IDENTIFIES THE NORMAL POSITION OF EACH VALVE
12. IDENTIFIES THE FAILURE MODE OF EACH VALVE
13. DENOTES IF THE VALVE HAS A REMOTE POSITION INDICATOR
14. IDENTIFIES THE EXAM REQUIRED
15. IDENTIFIES THE TEST FREQUENCY
16. IDENTIFIES THE RELIEF REQUEST APPLICABLE TO EACH VALVE
17. REMARKS SECTION FOR ANY APPLICABLE ADDITIONAL INFORMATION

PUMP NUMBER	DESCRIPTION	CL	COORD	SPEED	INLET PRES.	DIFF. PRES.	FLOW RATE	VIBRA.	BEARING TEMP.	REMARKS
3-P10A	DIESEL OIL TRANSFER	3		N	N:5	N:5	N:4	Y	Y:4	
3-P201A	CHARGING	2		Y	Y	Y	Y	Y	Y	
3-P201B	CHARGING	2		Y	Y	Y	Y	Y	Y	
3-P201C	CHARGING	2		Y	Y	Y	Y	Y	Y	
3-P203A	BORIC ACID TRANSFER	2		N	N:5	N:5	N:1	Y	N:6	
3-P203B	BORIC ACID TRANSFER	2		N	N:5	N:5	N:1	Y	N:6	
3-P210A	RESIDUAL HEAT REMOVAL	2		N	Y:9	Y	N:1	Y	N:11	
3-P210B	RESIDUAL HEAT REMOVAL	2		N	Y:9	Y	N:1	Y	N:11	
3-P211A	COMPONENT COOLING	3		N	Y	Y	Y	Y	Y	
3-P211B	COMPONENT COOLING	3		N	Y	Y	Y	Y	Y	
3-P211C	COMPONENT COOLING	3		N	Y	Y	Y	Y	Y	
3-P212A	SPENT FUEL PIT COOLING	3		N	Y	Y	Y	Y	Y	
3-P212B	SPENT FUEL PIT COOLING	3		N	Y	Y	Y	Y	Y	
3-P214A	CONTAINMENT SPRAY	2		N	Y	Y	Y	Y	Y	
3-P214B	CONTAINMENT SPRAY	2		N	Y	Y	Y	Y	Y	
3-P215A	HIGH HEAD SAFETY	2		N	Y	Y	Y	Y	Y	
3-P215B	HIGH HEAD SAFETY	2		N	Y	Y	Y	Y	Y	
3-P9A	INTAKE COOLING WATER	3		N	N:12	N:12	Y	Y	Y	
3-P9B	INTAKE COOLING WATER	3		N	N:12	N:12	Y	Y	Y	
3-P9C	INTAKE COOLING WATER	3		N	N:12	N:12	Y	Y	Y	
P2A	AUXILIARY FEED	3		Y	Y	Y	Y	Y	Y	COMMON TO BOTH
P2B	AUXILIARY FEED	3		Y	Y	Y	Y	Y	Y	COMMON TO BOTH
[illegible]	AUXILIARY FEED	3		Y	Y	Y	Y	Y	Y	COMMON TO BOTH

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PUMP NUMBER	DESCRIPTION	CL	COORD	SPEED	INLET PRES.	DIFF. PRES.	FLOW RATE	VIBRA.	BEARING TEMP.	REMARKS
4-P10B	DIESEL OIL TRANSFER	3		N	N:5	N:5	N:4	Y	Y:4	
4-P201A	CHARGING	2		Y	Y	Y	Y	Y	Y	
4-P201B	CHARGING	2		Y	Y	Y	Y	Y	Y	
4-P201C	CHARGING	2		Y	Y	Y	Y	Y	Y	
4-P203A	BORIC ACID TRANSFER	2		N	N:5	N:5	N:1	Y	N:6	
4-P203B	BORIC ACID TRANSFER	2		N	N:5	N:5	N:1	Y	N:6	
4-P210A	RESIDUAL HEAT REMOVAL	2		N	Y:9	Y	N:1	Y	N:11	
4-P210B	RESIDUAL HEAT REMOVAL	2		N	Y:9	Y	N:1	Y	N:11	
4-P211A	COMPONENT COOLING	3		N	Y	Y	Y	Y	Y	
4-P211B	COMPONENT COOLING	3		N	Y	Y	Y	Y	Y	
11C	COMPONENT COOLING	3		N	Y	Y	Y	Y	Y	
4-P212A	SPENT FUEL PIT COOLING	3		N	Y	Y	Y	Y	Y	
4-P212B	SPENT FUEL PIT COOLING	3		N	Y	Y	Y	Y	Y	
4-P214A	CONTAINMENT SPRAY	2		N	Y	Y	N:1	Y	Y	
4-P214B	CONTAINMENT SPRAY	2		N	Y	Y	N:1	Y	Y	
4-P215C	HIGH HEAD SAFETY	2		N	Y	Y	Y	Y	Y	
4-P215D	HIGH HEAD SAFETY	2		N	Y	Y	Y	Y	Y	
4-P9A	INTAKE COOLING WATER	3		N	N:12	N:12	Y	Y	Y	
4-P9B	INTAKE COOLING WATER	3		N	N:12	N:12	Y	Y	Y	
4-P9C	INTAKE COOLING WATER	3		N	N:12	N:12	Y	Y	Y	
P2A	AUXILIARY FEED	3		Y	Y	Y	Y	Y	Y	COMMON TO BOTH
P2B	AUXILIARY FEED	3		Y	Y	Y	Y	Y	Y	COMMON TO BOTH
[illegible]	AUXILIARY FEED	3		Y	Y	Y	Y	Y	Y	COMMON TO BOTH

P & ID: 5177-074-M-2 SYSTEM: BREATHING AIR SYSTEM (BA)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
3-BA-201	B-3	2	AC	2.500	CHECK	P	S/A	NC	NO	----	SLT	5		IWV-3700-1
CV-3-6165	B-4	2	A	2.500	GATE	P	A/O	LC	YES	FAI	SLT	5		IWV-3700-1
											V	5		IWV-3700-1

P & ID: 5610-M-1 SYSTEM: STEAM SYSTEM

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
3-10-004	B-9	2	C	26.000	S/CHK	A	S/A	NO	NO	----	INSP	7	2	
3-10-005	B-10	2	C	26.000	S/CHK	A	S/A	NO	NO	----	INSP	7	2	
3-10-006	B-11	2	C	26.000	S/CHK	A	S/A	NO	NO	----	INSP	7	2	
3-10-083	E-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		
3-10-085	E-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	6		
3-10-087	F-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	6		
3-10-375	C-12	3	C	3.000	CHECK	A	S/A	NC	NO	----	EO	3		
3-10-376	D-12	3	C	3.000	CHECK	A	S/A	NC	NO	----	EO	3		
3-10-377	D-12	3	C	3.000	CHECK	A	S/A	NC	NO	----	EO	3		
[illegible]-381	C-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		
3-10-382	D-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		
3-10-383	D-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		
AFSS-003A	D-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		TRAIN 2
AFSS-003B	D-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		TRAIN 2
AFSS-003C	D-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		TRAIN 2
AFSS-3-005	C-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		
MOV-3-1400	B-3	2	B	2.000	GLOBE	A	MO	NC	YES	FAI	EC	3		
											V	5		
MOV-3-1401	B-2	2	B	2.000	GLOBE	A	MO	NC	YES	FAI	EC	3		
											V	5		
MOV-3-1402	B-1	2	B	2.000	GLOBE	A	MO	NC	YES	FAI	EC	3		
											V	5		
[illegible]3-1403	C-12	2	B	4.000	GLOBE	A	MO	NC	YES	FAI	EO	3		
											V	5		

P & ID: 5610-M-1 (cont) SYSTEM: STEAM SYSTEM

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
MOV-3-1404	D-12	2	B	4.000	GLOBE	A	MO	NC	YES	FAI	EO	3		
											V	5		
MOV-3-1405	D-12	2	B	4.000	GLOBE	A	MO	NC	YES	FAI	EO	3		
											V	5		
POV-3-2604	B-9	2	C	26.000	PA/CHK	A	A/O	NO	YES	FC	EC	2	1	
											FS	2		
											V	5		
POV-3-2605	B-10	2	C	26.000	PA/CHK	A	A/O	NO	YES	FC	EC	2	1	
											FS	2		
											V	5		
POV-3-2606	B-11	2	C	26.000	PA/CHK	A	A/O	NO	YES	FC	EC	2	1	
											FS	2		
											V	5		
[illegible]1400	C-10	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-1	8		
RV-3-1401	C-9	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-2	8		
RV-3-1402	C-10	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-3	8		
RV-3-1403	C-9	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-4	8		
RV-3-1405	B-10	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-1	8		
RV-3-1406	B-10	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-2	8		
RV-3-1407	B-11	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-3	8		
RV-3-1408	B-10	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-4	8		
RV-3-1410	C-11	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-1	8		
RV-3-1411	C-11	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-2	8		
RV-3-1412	C-11	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-3	8		
RV-3-1413	C-10	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-4	8		

P & ID: 5610-M-10 SYSTEM: PRIMARY MAKEUP & CONT. COOL.

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
3-10-567	D-6	2	AC	2.000	CHECK	P	S/A	NC	NO	----	SLT	5		
3-10-582	D-6	2	A	2.000	GATE	P	MAN	NC	NO	FAI	SLT	5		
CV-3-2810	A-11	2	B	6.000	GLOBE	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											V	5		
CV-3-2812	B-11	2	B	6.000	GLOBE	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											V	5		
CV-3-2814	B-11	2	B	6.000	GLOBE	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											V	5		
CV-3-2903	A-8	2	B	10.000	BUTFY	P	A/O	NO	YES	FO	V	5		IWV-3700-1
2904	B-8	2	B	10.000	BUTFY	P	A/O	NO	YES	FO	V	5		IWV-3700-1
CV-3-2905	B-8	2	B	10.000	BUTFY	P	A/O	NO	YES	FO	V	5		IWV-3700-1
CV-3-2906	A-11	2	B	10.000	BUTFY	A	A/O	NC	YES	FO	EO	3		
											FS	3		
											V	5		
CV-3-2907	B-11	2	B	10.000	BUTFY	A	A/O	NC	YES	FO	EO	3		
											FS	3		
											V	5		
CV-3-2908	C-11	2	B	10.000	BUTFY	A	A/O	NC	YES	FO	EO	3		
											FS	3		
											V	5		
MOV-3-1417	B-8	2	B	10.000	GATE	A	MO	NO	YES	FAI	EC	2	1	
											V	5		
MOV-3-1418	C-10	2	B	10.000	GATE	A	MO	NO	YES	FAI	EC	2	1	
											V	5		

P & ID: 5610-M-11 SYSTEM: CONTAINMENT VENTILATION

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
3-11-003	F-13	2	A/C	1.000	CHECK	A	S/A	NO	NO	----	EC	5	3	
											SLT	5		
3-40-204	D-11	2	A	2.000	GATE	A	MAN	LC	NO	FAI	EO	2	6	
											SLT	5		
3-40-205	E-13	2	AC	2.000	CHECK	A	S/A	NC	NO	----	EO	2	7	
											SLT	5		
CV-3-2819	D-2	2	A	2.000	GLOBE	A	A/O	NC	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-3-2826	D-1	2	A	2.000	GLOBE	A	A/O	NC	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
HV-3-1	F-10	2	A	2.000	DIAPH	A	MAN	LC	NO	FAI	EO	2	1	
											SLT	5		
HV-3-17	D-11	2	A	2.000	GLOBE	P	MAN	NC	NO	FAI	EO	2	6	
											SLT	5		
HV-3-2	F-10	2	A	2.000	DIAPH	A	MAN	LC	NO	FAI	EO	2	1	
											SLT	5		
HV-3-3	F-10	2	A	2.000	DIAPH	A	MAN	LC	NO	FAI	EO	2	2	
											SLT	5		
HV-3-4	F-10	2	A	2.000	DIAPH	A	MAN	LC	NO	FAI	EO	2	2	
											SLT	5		
PAHM-3-001A	F-13	2	A	0.750	GLOBE	A	MAN	NC	NO	FAI	EO	2	4	
											SLT	5		
PAHM-3-001B	F-13	2	A	0.750	GLOBE	A	MAN	NC	NO	FAI	EO	2	4	
											SLT	5		
PAHM-3-002A	F-11	2	A	0.750	GLOBE	A	MAN	NC	NO	FAI	EO	2	1	
											SLT	5		
PAHM-3-002B	E-12	2	A	0.750	GLOBE	A	MAN	NC	NO	FAI	EO	2	2	
											SLT	5		

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P & ID: 5610-M-11 (cont) SYSTEM: CONTAINMENT VENTILATION

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
POV-3-2600	B-2	2	A	48.000	BUTFY	A	A/O	NC	YES	FC	EC	2	8	
											FS	2		
											SLT	5		
											V	5		
POV-3-2601	B-3	2	A	48.000	BUTFY	A	A/O	NC	YES	FC	EC	2	8	
											FS	2		
											SLT	5		
											V	5		
POV-3-2602	D-2	2	A	54.000	BUTFY	A	A/O	NC	YES	FC	EC	2	8	
											FS	2		
											SLT	5		
											V	5		
POV-3-2603	D-3	2	A	54.000	BUTFY	A	A/O	NC	YES	FC	EC	2	8	
											FS	2		
											SLT	5		
											V	5		
SV-3-2911	D-8	2	A	1.000	GLOBE	A	SO	NO	YES	FC	EC	3	5	
											FS	3		
											SLT	5		
											V	5		
SV-3-2912	D-8	2	A	1.000	GLOBE	A	SO	NO	YES	FC	EC	3	5	
											FS	3		
											SLT	5		
											V	5		
SV-3-2913	C-8	2	A	1.000	GLOBE	A	SO	NO	YES	FC	EC	3	5	
											FS	3		
											SLT	5		
											V	5		

P & ID: 5610-M-12 SYSTEM: CONT. & RAD. DRAINS & VENTS

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
CV-3-2821	C-9	2	A	3.000	GLOBE	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-3-2822	C-9	2	A	3.000	GLOBE	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		

P & ID: 5610-M-2 SYSTEM: CONDENSATE AND FEEDWATER

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
20-143	B-12	3	C	6.000	CHECK	A	S/A	NC	NO	----	EO	3		
20-243	C-12	3	C	6.000	CHECK	A	S/A	NC	NO	----	EO	3		
20-343	D-12	3	C	6.000	CHECK	A	S/A	NC	NO	----	EO	3		
3-20-140	B-10	2	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		
3-20-240	B-10	2	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		
3-20-340	C-11	2	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		
3-20-401	A-11	3	C	8.000	CHECK	A	S/A	NC	NO	----	EO	3		
AFPD-3-010	F-4	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		TRAIN 2
AFPD-3-012	F-4	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		TRAIN 2
-3-014	F-4	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		TRAIN 2
CV-3-2816	B-10	2	B	4.000	GLOBE	A	A/O	NC	NO	FC	EO	3	4	
											FS	3		
CV-3-2817	B-11	2	B	4.000	GLOBE	A	A/O	NC	NO	FC	EO	3	4	
											FS	3		
CV-3-2818	C-11	2	B	4.000	GLOBE	A	A/O	NC	NO	FC	EO	3	4	
											FS	3		
CV-3-2831	B-10	2	B	4.000	GLOBE	A	A/O	NC	NO	FC	EO	3	4	
											FS	3		
CV-3-2832	B-11	2	B	4.000	GLOBE	A	A/O	NC	NO	FC	EO	3	4	
											FS	3		
CV-3-2833	C-11	2	B	4.000	GLOBE	A	A/O	NC	NO	FC	EO	3	4	
											FS	3		
CV-3-2900	D-7	2	C	14.000	CHECK	A	A/O	NO	NO	----	EC	2	3	
CV-3-2901	D-8	2	C	14.000	CHECK	A	A/O	NO	NO	----	EC	2	3	
-2902	D-9	2	C	14.000	CHECK	A	A/O	NO	NO	----	EC	2	3	

P & ID: 5610-M-2 (cont) SYSTEM: CONDENSATE AND FEEDWATER

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
CV-3-6275A	C-10	2	B	6.000	GLOBE	A	A/O	NO	YES	FAI	EC	3		
											V	5		
CV-3-6275B	C-10	2	B	6.000	GLOBE	A	A/O	NO	YES	FAI	EC	3		
											V	5		
CV-3-6275C	C-11	2	B	6.000	GLOBE	A	A/O	NO	YES	FAI	EC	3		
											V	5		
FCV-3-478	C-3	2	B	14.000	GLOBE	A	A/O	NO	YES	FC	EC	2		
											FS	2		
											V	5	5	
FCV-3-479	C-4	2	B	4.000	GLOBE	A	A/O	NC	YES	FC	EC	2		
											FS	2		
											V	5	5	
3-488	C-5	2	B	14.000	GLOBE	A	A/O	NO	YES	FC	EC	2		
											FS	2		
											V	5	5	
FCV-3-489	C-6	2	B	4.000	GLOBE	A	A/O	NC	YES	FC	EC	2		
											FS	2		
											V	5	5	
FCV-3-498	C-8	2	B	14.000	GLOBE	A	A/O	NO	YES	FC	EC	2		
											FS	2		
											V	5	5	
FCV-3-499	C-8	2	B	4.000	GLOBE	A	A/O	NC	YES	FC	EC	2		
											FS	2		
											V	5	5	
MOV-3-1425	E-11	2	B	1.000	GATE	A	MO	NO	YES	FAI	EC	3		
											V	5		
MOV-3-1426	F-11	2	B	1.000	GATE	A	MO	NO	YES	FAI	EC	3		
											V	5		
MOV-3-1427	C-5	2	B	1.000	GATE	A	MO	NO	YES	FAI	EC	3		
											V	5		
275A-1	E-4	2	B	0.750	GLOBE	A	SO	NC	YES	FC	EC	3		
											FS	3		
											V	5	6	

P & ID: 5610-M-2 (cont) SYSTEM: CONDENSATE & FEEDWATER

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
SV-3-6275B-1	D-4	2	B	0.750	GLOBE	A	SO	NC	YES	FC	EC	3		
											FS	3		
											V	5	6	
SV-3-6275C-1	C-4	2	B	0.750	GLOBE	A	SO	NC	YES	FC	EC	3		
											FS	3		
											V	5	6	

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P & ID: 5610-M-4 SYSTEM: LUBE OIL, SERVICE & INSTR. AIR

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
3-40-336	C-8	2	AC	2.000	CHECK	A	S/A	NO	NO	----	EC	5	1	
											SLT	5		
3-40-340A	C-8	2	AC	2.000	S/CHK	A	S/A	NO	NO	----	EC	5	1	
											SLT	5		
CV-3-2803	C-8	2	B	2.000	GLOBE	P	A/O	NO	YES	FO	V	1		IWV-3700-1

P & ID: 5610-M-410-91 SYSTEM: REACTOR COOLANT (RCS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
3-518	A-11	2	AC	0.750	CHECK	A	S/A	NC	NO	----	EO	2'	2	
											SLT	5		
3-519	A-11	2	AC	0.750	S/CHK	A	S/A	NC	NO	----	EO	2	2	
											SLT	5		
CV-3-516	A-12	2	A	0.375	GLOBE	A	A/O	NC	YES	FC	EC	2		
											FS	2	8	
											SLT	5		
											V	5		
CV-3-519A	A-12	2	A	3.000	DIAPH	A	A/O	NC	YES	FC	EC	2	1	
											FS	2		
											SLT	5		
											V	5		
CV-3-519B	B-11	2	A	3.000	DIAPH	P	A/O	NC	YES	FC	SLT	5		
											V	5		
CV-3-522A	B-12	2	A	0.750	DIAPH	P	A/O	NC	YES	FC	SLT	5		
											V	5		
CV-3-522B	B-12	2	A	0.750	DIAPH	P	A/O	NC	YES	FC	SLT	5		
											V	5		
CV-3-522C	B-11	2	A	0.750	DIAPH	P	A/O	NC	YES	FC	SLT	5		
											V	5		
MOV-3-535	A-5	1	B	3.000	GATE	A	MO	NO	YES	FAI	EC	3		
											V	5		
MOV-3-536	A-5	1	B	3.000	GATE	A	MO	NO	YES	FAI	EC	3		
											V	5		
PCV-3-455C	A-5	1	B	2.000	GLOBE	A	A/O	NC	YES	FC	EO	4	6	
											FS	4		
											V	5		
PCV-3-456	A-5	1	B	2.000	GLOBE	A	A/O	NC	YES	FC	EO	4	6	
											FS	4		
											V	5		
[illegible]-551A	A-7	1	C	4.000	SAFE	A	S/A	NC	NO	----	TF-5	8		
RV-3-551B	A-7	1	C	4.000	SAFE	A	S/A	NC	NO	----	TF-5	8		

P & ID: 5610-M-410-91 (cont) SYSTEM: REACTOR COOLANT (RCS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
RV-3-551C	A-6	1	C	4.000	SAFE	A	S/A	NC	NO	----	TF-5	8		
SV-3-6318A	A-8	2	B	1.000	GLOBE	A	SO	LC	YES	FC	EC	4	5	
											FS	4		
											V	5		
SV-3-6318B	A-8	2	B	1.000	GLOBE	A	SO	LC	YES	FC	EC	4	5	
											FS	4		
											V	5		
SV-3-6319A	A-9	2	B	1.000	GLOBE	A	SO	LC	YES	FC	EC	4	4	
											FS	4		
											V	5		
SV-3-6319B	A-9	2	B	1.000	GLOBE	A	SO	LC	YES	FC	EC	4	4	
											FS	4		
											V	5		
6320A	A-9	2	B	1.000	GLOBE	A	SO	LC	YES	FC	EC	4	5	
											FS	4		
											V	5		
SV-3-6320B	A-9	2	B	1.000	GLOBE	A	SO	LC	YES	FC	EC	4	5	
											FS	4		
											V	5		
SV-3-6385	A-12	2	A	0.375	GLOBE	A	SO	NC	YES	FC	EC	2	3	
											FS	2		
											SLT	5		
											V	5	8	

P & ID: 5610-M-420-3 SYSTEM: CHEM. VOL. CONT. (CVCS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
3-298A	A-20	1	AC	2.000	CHECK	A	S/A	NO	NO	----	EC	5	13	
											SLT	5		
3-298B	A-19	1	AC	2.000	CHECK	A	S/A	NO	NO	----	EC	5	13	
											SLT	5		
3-298C	A-19	1	AC	2.000	CHECK	A	S/A	NO	NO	----	EC	5	13	
											SLT	5		
3-312A	C-19	1	C	3.000	CHECK	A	S/A	NC	NO	----	EO	2	10	
3-312B	C-19	1	C	3.000	CHECK	A	S/A	NC	NO	----	EO	2	10	
3-312C	C-17	1	AC	3.000	CHECK	A	S/A	NO	NO	----	EC	5	14	
											SLT	5		
3-333	C-17	2	A	3.000	GLOBE	P	MAN	NC	NO	FAI	SLT	5		
[illegible]1	A-12	2	C	2.000	CHECK	A	S/A	NC	NO	----	EO	2	11	
3-357	A-13	2	C	4.000	CHECK	A	S/A	NC	NO	----	EO	2	12	
3-397A	A-9	2	C	2.000	CHECK	A	S/A	NC	NO	----	EO	2	15	
3-397B	A-9	2	C	2.000	CHECK	A	S/A	NC	NO	----	EO	2	15	
CV-3-200A	D-19	1	A	2.000	GLOBE	A	A/O	NC	YES	FC	EC	2	1	
											FS	2		
											SLT	5		
											V	5		
CV-3-200B	D-18	1	A	2.000	GLOBE	A	A/O	NC	YES	FC	EC	2	1	
											FS	2		
											SLT	5		
											V	5		
CV-3-200C	D-18	1	A	2.000	GLOBE	A	A/O	NO	YES	FC	EC	2	1	
											FS	2		
											SLT	5		
											V	5		

P & ID: 5610-M-420-3 (cont) SYSTEM: CHEM. VOL. CONT. (CVCS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
CV-3-204	D-17	2	A	2.000	GLOBE	A	A/O	NO	YES	FC	EC	2	2	
											FS	2		
											SLT	5		
											V	5		
CV-3-310A	C-19	1	B	3.000	GLOBE	A	A/O	NO	YES	FO	EO	2	6	
											FS	2		
											V	5		
CV-3-310B	C-19	1	B	3.000	GLOBE	A	A/O	NC	YES	FO	EO	2	6	
											FS	2		
											V	5		
HCV-3-121	C-17	2	A	3.000	GLOBE	A	A/O	NO	NO	FO	EO	2	5	
											FS	2		
											SLT	5		
3-115B	A-14	2	B	4.000	BUTFY	A	A/O	NC	YES	FC	EO	2		
											FS	2		
											V	5	8	
LCV-3-115C	C-14	2	B	4.000	GATE	A	MO	NO	YES	FAI	EC	2	7	
											V	5		
MOV-3-350	A-12	2	B	2.000	GATE	A	MO	NC	YES	FAI	EO	3		
											V	5		
MOV-3-381	B-16	2	A	3.000	GATE	A	MO	NO	YES	FAI	EC	4	3	
											SLT	5		
											V	5		
MOV-3-6386	B-16	2	A	3.000	GATE	A	MO	NO	YES	FAI	EC	4	3	
											SLT	5		
											V	5		

P & ID: 5610-M-450-53 SYSTEM: AUX. COOL. RES. HEAT REM.

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
3-753A	F-7	2	C	10.000	CHECK	A	S/A	NC	NO	----	EO	2	2	
3-753B	H-7	2	C	10.000	CHECK	A	S/A	NC	NO	----	EO	2	2	
HCV-3-758	G-11	2	B	12.000	BUTFY	P	A/O	LO	NO	FO	---	--		IWV-3700-1
MOV-3-744A	B-12	2	B	10.000	GATE	A	MO	NC	YES	FAI	EO	2	1	
											V	5		
MOV-3-744B	B-12	2	B	10.000	GATE	A	MO	NC	YES	FAI	EO	2	1	
											V	5		
MOV-3-750	B-5	1	A	14.000	GATE	A	MO	LC	YES	FAI	EO	2	3	
											SLT	5		
											V	5		
MOV-3-751	C-5	1	A	14.000	GATE	A	MO	LC	YES	FAI	EO	2	3	
											SLT	5		
											V	5		

P & ID: 5610-M-450-54 SYSTEM: SPENT FUEL PIT COOLING

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
3-911	F-5	3	C	8.000	CHECK	A	S/A	NO	NO	----	EO	3		
3-914	E-5	3	C	8.000	CHECK	A	S/A	NO	NO	----	EO	3		

P & ID: 5610-M-470-5 SYSTEM: SAFETY INJECTION SYSTEM (SIS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
3-2918	B-10	2	C	2.000	CHECK	A	S/A	NC	NO	----	INSP	7	14	
3-2919	B-9	2	C	2.000	CHECK	A	S/A	NC	NO	----	INSP	7	14	
3-2920	B-9	2	C	2.000	CHECK	A	S/A	NC	NO	----	INSP	7	14	
3-2921	B-10	2	C	2.000	CHECK	A	S/A	NC	NO	----	INSP	7	14	
3-2922	B-9	2	C	2.000	CHECK	A	S/A	NC	NO	----	INSP	7	14	
3-2923	B-9	2	C	2.000	CHECK	A	S/A	NC	NO	----	INSP	7	14	
3-873A	C-15	1	AC	2.000	CHECK	A	S/A	NC	NO	----	EO	1	16	
											SLT	5		
3-873B	C-15	1	AC	2.000	CHECK	A	S/A	NC	NO	----	EO	1	16	
											SLT	5		
3C	C-14	1	AC	2.000	CHECK	A	S/A	NC	NO	----	EO	1	16	
											SLT	5		
3-874A	D-17	1	AC	2.000	CHECK	A	S/A	NC	NO	----	EO	1	15	
											INSP	7	22	
											SLT	5		
3-874B	D-17	1	AC	2.000	CHECK	A	S/A	NC	NO	----	EO	1	15	
											INSP	7	22	
											SLT	5		
3-875A	A-16	1	AC	10.000	CHECK	A	S/A	NC	NO	----	EO	2	9	
											INSP	7	22	
											SLT	5		
3-875B	A-17	1	AC	10.000	CHECK	A	S/A	NC	NO	----	EO	2	9	
											INSP	7	22	
											SLT	5		
3-875C	A-17	1	AC	10.000	CHECK	A	S/A	NC	NO	----	EO	2	9	
											INSP	7	22	
											SLT	5		
5D	B-15	1	C	10.000	CHECK	A	S/A	NC	NO	----	EO	1	17	
											INSP	7	22	

P & ID: 5610-M-470-5 (cont) SYSTEM: SAFETY INJECTION SYSTEM (SIS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
3-875E	B-13	1	C	10.000	CHECK	A	S/A	NC	NO	----	EO	1	17	
											INSP	7	22	
3-875F	B-11	1	C	10.000	CHECK	A	S/A	NC	NO	----	EO	1	17	
											INSP	7	22	
3-876A	B-15	1	AC	8.000	CHECK	A	S/A	NC	NO	----	EO	2	7	
											SLT	5		
3-876B	A-13	1	AC	8.000	CHECK	A	S/A	NC	NO	----	EO	2	7	
											INSP	7	22	
											SLT	5		
3-876C	A-11	1	AC	8.000	CHECK	A	S/A	NC	NO	----	EO	2	7	
											INSP	7	22	
											SLT	5		
[illegible]76D	A-13	1	AC	8.000	CHECK	A	S/A	NC	NO	----	EO	4	8	
											INSP	7	22	
											SLT	5		
3-876E	A-11	1	AC	8.000	CHECK	A	S/A	NC	NO	----	EO	4	8	
											INSP	7	22	
											SLT	5		
3-879A	D-7	2	C	3.000	CHECK	A	S/A	NC	NO	----	EO	1	19	
3-879B	C-7	2	C	3.000	CHECK	A	S/A	NC	NO	----	EO	1	19	
3-890A	B-8	2	AC	6.000	CHECK	A	S/A	NC	NO	----	INSP	7	14	
											SLT	5		
3-890B	B-8	2	AC	6.000	CHECK	A	S/A	NC	NO	----	INSP	7	14	
											SLT	5		
3-895V	D-12	2	A	0.750	GLOBE	P	MAN	LC	NO	FAI	SLT	5		
3-945E	C-9	2	AC	1.000	S/CHK	A	S/A	NC	NO	----	EC	2	5	
											SLT	5	5	
CV-3-855	C-9	2	A	1.000	GLOBE	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		

P & ID: 5610-M-470-5 (cont) SYSTEM: SAFETY INJECTION SYSTEM (SIS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
MOV-3-843A	C-13	2	B	4.000	GATE	A	MO	NC	YES	FAI	EO	3		
											V	5		
MOV-3-843B	C-13	2	B	4.000	GATE	A	MO	NC	YES	FAI	EO	3		
											V	5		
MOV-3-856A	D-3	2	B	2.000	GLOBE	A	MO	NO	YES	FAI	EC	2	21	
											V	5		
MOV-3-856B	D-3	2	B	2.000	GLOBE	A	MO	NO	YES	FAI	EC	2	21	
											V	5		
MOV-3-860A	A-9	2	A	14.000	GATE	A	MO	NC	YES	FAI	EO	3		
											SLT	5		
											V	5		
MOV-3-860B	A-9	2	A	14.000	GATE	A	MO	NC	YES	FAI	EO	3		
											SLT	5		
											V	5		
MOV-3-861A	A-8	2	A	14.000	GATE	A	MO	NC	YES	FAI	EO	3		
											SLT	5		
											V	5		
MOV-3-861B	A-8	2	A	14.000	GATE	A	MO	NC	YES	FAI	EO	3		
											SLT	5		
											V	5		
MOV-3-862A	A-5	2	B	14.000	GATE	A	MO	LO	YES	FAI	EC	2	12	
											V	5		
MOV-3-862B	A-5	2	B	14.000	GATE	A	MO	LO	YES	FAI	EC	2	12	
											V	5		
MOV-3-863A	B-8	2	B	8.000	GATE	A	MO	LC	YES	FAI	EO	4	3	
											V	5		
MOV-3-863B	B-8	2	B	8.000	GATE	A	MO	LC	YES	FAI	EO	4	3	
											V	5		
MOV-3-864A	D-2	2	B	16.000	GATE	A	MO	LO	YES	FAI	EC	1	11	
											V	5		

P & ID: 5610-M-470-5 (cont) SYSTEM: SAFETY INJECTION SYSTEM (SIS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
MOV-3-864B	D-2	2	B	16.000	GATE	A	MO	LO	YES	FAI	EC	1	11	
											V	5		
MOV-3-865A	B-15	2	B	10.000	GATE	P	MO	LO	YES	FAI	V	5		IWV-3700-1
MOV-3-865B	B-13	2	B	10.000	GATE	P	MO	LO	YES	FAI	V	5		IWV-3700-1
MOV-3-865C	B-11	2	B	10.000	GATE	P	MO	LO	YES	FAI	V	5		IWV-3700-1
MOV-3-866A	D-15	1	B	2.000	GLOBE	A	MO	LC	YES	FAI	EO	2	6	
											V	5		
MOV-3-866B	D-15	1	B	2.000	GLOBE	A	MO	LC	YES	FAI	EO	2	6	
											V	5		
MOV-3-869	D-12	2	B	3.000	GATE	A	MO	NC	YES	FAI	EO	3		
											V	5		
-3-872	A-7	2	A	8.000	GATE	A	MO	NC	YES	FAI	EO	4	4	
											SLT	5		
											V	5		
MOV-3-880A	B-7	2	A	6.000	GATE	A	MO	NC	YES	FAI	EO	3		
											SLT	5		
											V	5		
MOV-3-880B	B-7	2	A	6.000	GATE	A	MO	NC	YES	FAI	EO	3		
											SLT	5		
											V	5		
MOV-878A	C-7	2	B	4.000	GATE	A	MO	NO	YES	FAI	EC	2	10	
											V	5		
SV-3-2905	C-10	2	B	2.000	GLOBE	A	SO	NC	YES	FC	EO	1	13	
											FS	1		
											V	5		
SV-3-2906	C-10	2	B	2.000	GLOBE	A	SO	NC	YES	FC	EO	1	13	
											FS	1		
											V	5		
3-2907	C-9	2	B	2.000	GLOBE	A	SO	NC	YES	FC	EO	1	13	
											FS	1		
											V	5		

P & ID: 5610-M-470-5 (cont) SYSTEM: SAFETY INJECTION SYSTEM (SIS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
SV-3-2908	C-9	2	B	2.000	GLOBE	A	SO	NC	YES	FC	EO	1	13	
											FS	1		
											V	5		
SV-3-2909	C-9	2	B	2.000	GLOBE	A	SO	NC	YES	FC	EO	1	13	
											FS	1		
											V	5		
SV-3-2910	C-9	2	B	2.000	GLOBE	A	SO	NC	YES	FC	EO	1	13	
											FS	1		
											V	5		

P & ID: 5610-M-470-57 SYSTEM: AUX. COOL. COMP. COOL. (ACCC)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
3-702A	C-11	3	C	16.000	CHECK	A	S/A	NO	NO	----	EC	3		
3-702B	B-11	3	C	16.000	CHECK	A	S/A	NO	NO	----	EC	3		
3-702C	B-11	3	C	16.000	CHECK	A	S/A	NO	NO	----	EC	3		
CV-3-739	G-7	3	B	3.000	GLOBE	A	AO	NO	NO	FC	EC	3		
											FS	3		
FCV-3-626	B-13	2	B	3.000	GATE	A	MO	NO	YES	FAI	EC	2	6	
											V	5		
MOV-3-716A	B-18	2	B	6.000	GATE	A	MO	NO	YES	FAI	EC	2	3	
											V	5		
MOV-3-716B	B-17	2	B	6.000	GATE	A	MO	NO	YES	FAI	EC	2	3	
											V	5		
-3-730	C-13	2	B	6.000	GATE	A	MO	NO	YES	FAI	EC	2	5	
											V	5		
MOV-3-749A	D-5	3	B	16.000	GATE	A	MO	NC	YES	FAI	EO	3		
											V	5		
MOV-3-749B	C-6	3	B	16.000	GATE	A	MO	NC	YES	FAI	EO	3		
											V	5		

P. & ID: 5610-M-480-1 SYSTEM: SAMPLING (SS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
CV-3-951	H-12	2	A	0.375	GLOBE	P	A/O	NC	YES	FC	SLT	5		
											V	5		
CV-3-953	H-12	2	A	0.375	GLOBE	P	A/O	NC	YES	FC	SLT	5		
											V	5		
CV-3-955C	F-12	2	A	0.375	GLOBE	P	A/O	NC	YES	FC	SLT	5		
											V	5		
CV-3-955D	F-12	2	A	0.375	GLOBE	P	A/O	NC	YES	FC	SLT	5		
											V	5		
CV-3-955E	F-12	2	A	0.375	GLOBE	P	A/O	NC	YES	FC	SLT	5		
											V	5		
CV-3-956A	H-11	2	A	0.375	GLOBE	A	A/O	NC	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-3-956B	H-11	2	A	0.375	GLOBE	A	A/O	NC	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-3-956D	F-11	2	A	0.375	GLOBE	A	A/O	NC	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
SV-3-6427A	G-12	2	A	0.375	GLOBE	A	SO	NC	YES	FC	EC	3	2	
											FS	3		
											SLT	5		
											V	5		
SV-3-6427B	G-12	2	A	0.375	GLOBE	A	SO	NC	YES	FC	EC	3	2	
											FS	3		
											SLT	5		
											V	5		
SV-3-6428	G-11	2	A	0.375	GLOBE	A	SO	NC	YES	FC	EC	3	2	
											FS	3		
											SLT-	5		
											V	5		

P & ID: 5610-M-5 SYSTEM: INTAKE COOL WATER

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
3-50-311	F-3	3	C	24.000	CHECK	A	S/A	NO	NO	----	EC	3		
3-50-321	F-5	3	C	24.000	CHECK	A	S/A	NO	NO	----	EC	3		
3-50-331	F-5	3	C	24.000	CHECK	A	S/A	NO	NO	----	EC	3		

P & ID: 5610-M-500-27 SYSTEM: WASTE DISPOSAL-LIQUID

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
CV-3-4658A	C-7	2	A	0.750	DIAPH	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-3-4658B	C-6	2	A	0.750	DIAPH	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-3-4659A	C-7	2	A	0.750	DIAPH	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-3-4659B	C-6	2	A	0.750	DIAPH	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-3-4668A	B-7	2	A	3.000	DIAPH	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-3-4668B	B-6	2	A	3.000	DIAPH	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
PCV-3-1014	D-6	2	A	1.000	GLOBE	P	A/O	NC	NO	FC	SLT	5		

P & ID: 5610-M-7 SYSTEM: DIESEL OIL

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
70-006A	B-4	3	C	2.000	CHECK	A	S/A	NC	NO	----	EO	3		
CV-2046A	C-3	3	B	2.000	GLOBE	A	A/O	NC	NO	FC	EO	3	2	
SV-2051A	B-3	3	B	2.000	GLOBE	A	SO	NC	NO	FC	EO	3	3	
SV-3522A	D-4	3	B	1.500	GLOBE	A	SO	NC	NO	----	EO	3	1	

P & ID: VARIOUS SYSTEM: TEST CONNECTION

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
3-2023		2	A	0.375	GLOBE	P	MAN	NC	NO	FAI	SLT	5		
3-2024		2	A	0.375	GLOBE	P	MAN	NC	NO	FAI	SLT	5		
3-2025		2	A	0.375	GLOBE	P	MAN	NC	NO	FAI	SLT	5		
3-2026		2	A	0.375	GLOBE	P	MAN	NC	NO	FAI	SLT	5		

P & ID: 5177-074-M-2 SYSTEM: BREATHING AIR SYSTEM (BA)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
4-BA-201	B-3	2	AC	2.500	CHECK	P	S/A	NC	NO	----	SLT	5		IWV-3700-1
CV-4-6165	B-4	2	A	2.500	GATE	P	A/O	LC	YES	FAI	SLT	5		IWV-3700-1
											V	5		IWV-3700-1

P & ID: 5610-M-1 SYSTEM: STEAM SYSTEM

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
4-10-004	B-9	2	C	26.000	S/CHK	A	S/A	NO	NO	----	INSP	7	2	
4-10-005	B-10	2	C	26.000	S/CHK	A	S/A	NO	NO	----	INSP	7	2	
4-10-006	B-11	2	C	26.000	S/CHK	A	S/A	NO	NO	----	INSP	7	2	
4-10-083	E-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		
4-10-085	E-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	6		
4-10-087	F-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	6		
4-10-375	C-12	3	C	3.000	CHECK	A	S/A	NC	NO	----	EO	3		
4-10-376	D-12	3	C	3.000	CHECK	A	S/A	NC	NO	----	EO	3		
4-10-377	D-12	3	C	3.000	CHECK	A	S/A	NC	NO	----	EO	3		
4-10-381	C-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		
4-10-382	D-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		
4-10-383	D-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		
AFSS-003A	D-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		TRAIN 2
AFSS-003B	D-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		TRAIN 2
AFSS-003C	D-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		TRAIN 2
AFSS-4-005	C-12	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		
MOV-4-1400	B-3	2	B	2.000	GLOBE	A	MO	NC	YES	FAI	EC	3		
											V	5		
MOV-4-1401	B-2	2	B	2.000	GLOBE	A	MO	NC	YES	FAI	EC	3		
											V	5		
MOV-4-1402	B-1	2	B	2.000	GLOBE	A	MO	NC	YES	FAI	EC	3		
											V	5		
MOV-4-1403	C-12	2	B	3.000	GATE	A	MO	NC	YES	FAI	EO	3		
											V	5		

P & ID: 5610-M-1 (cont) SYSTEM: STEAM SYSTEM

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
MOV-4-1404	D-12	2	B	3.000	GATE	A	MO	NC	YES	FAI	EO	3		
											V	5		
MOV-4-1405	D-12	2	B	3.000	GATE	A	MO	NC	YES	FAI	EO	3		
											V	5		
POV-4-2604	B-9	2	C	26.000	PA/CHK	A	A/O	NO	YES	FC	EC	2	1	
											FS	2		
											V	5		
POV-4-2605	B-10	2	C	26.000	PA/CHK	A	A/O	NO	YES	FC	EC	2	1	
											FS	2		
											V	5		
POV-4-2606	B-11	2	C	26.000	PA/CHK	A	A/O	NO	YES	FC	EC	2	1	
											FS	2		
											V	5		
RV-4-1400	C-10	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-1	8		
RV-4-1401	C-9	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-2	8		
RV-4-1402	C-10	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-3	8		
RV-4-1403	C-9	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-4	8		
RV-4-1405	B-10	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-1	8		
RV-4-1406	B-10	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-2	8		
RV-4-1407	B-11	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-3	8		
RV-4-1408	B-10	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-4	8		
RV-4-1410	C-11	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-1	8		
RV-4-1411	C-11	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-2	8		
RV-4-1412	C-11	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-3	8		
RV-4-1413	C-10	2	C	6.000	SAFE	A	S/A	NC	NO	----	TF-4	8		

P & ID: 5610-M-10 SYSTEM: PRIMARY MAKEUP & CONT. COOL.

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
4-10-567	D-6	2	AC	2.000	CHECK	P	S/A	NC	NO	----	SLT	5		
4-10-582	D-6	2	A	2.000	GATE	P	MAN	NC	NO	FAI	SLT	5		
CV-4-2810	A-11	2	B	6.000	GLOBE	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											V	5		
CV-4-2812	B-11	2	B	6.000	GLOBE	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											V	5		
CV-4-2814	B-11	2	B	6.000	GLOBE	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											V	5		
CV-4-2903	A-8	2	B	10.000	BUTFY	P	A/O	NO	YES	FO	V	5		IWV-3700-1
CV-4-2904	B-8	2	B	10.000	BUTFY	P	A/O	NO	YES	FO	V	5		IWV-3700-1
CV-4-2905	B-8	2	B	10.000	BUTFY	P	A/O	NO	YES	FO	V	5		IWV-3700-1
CV-4-2906	A-11	2	B	10.000	BUTFY	A	A/O	NC	YES	FO	EO	3		
											FS	3		
											V	5		
CV-4-2907	B-11	2	B	10.000	BUTFY	A	A/O	NC	YES	FO	EO	3		
											FS	3		
											V	5		
CV-4-2908	C-11	2	B	10.000	BUTFY	A	A/O	NC	YES	FO	EO	3		
											FS	3		
											V	5		
MOV-4-1417	B-8	2	B	10.000	GATE	A	MO	NO	YES	FAI	EC	2	1	
											V	5		
MOV-4-1418	C-10	2	B	10.000	GATE	A	MO	NO	YES	FAI	EC	2	1	
											V	5		

P & ID: 5610-M-11 SYSTEM: CONTAINMENT VENTILATION

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
4-11-003	F-13	2	A/C	1.000	CHECK	A	S/A	NO	NO	----	EC	5	3	
											SLT	5		
4-40-204	D-11	2	A	2.000	GATE	A	MAN	LC	NO	FAI	EO	2	6	
											SLT	5		
4-40-205	E-13	2	AC	2.000	CHECK	A	S/A	NC	NO	----	EO	2	7	
											SLT	5		
CV-4-2819	D-2	2	A	2.000	GLOBE	A	A/O	NC	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-4-2826	D-1	2	A	2.000	GLOBE	A	A/O	NC	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
[illegible]-1	F-10	2	A	2.000	DIAPH	A	MAN	LC	NO	FAI	EO	2	1	
											SLT	5		
HV-4-17	D-11	2	A	2.000	GLOBE	P	MAN	NC	NO	FAI	EO	2	6	
											SLT	5		
HV-4-2	F-10	2	A	2.000	DIAPH	A	MAN	LC	NO	FAI	EO	2	1	
											SLT	5		
HV-4-3	F-10	2	A	2.000	DIAPH	A	MAN	LC	NO	FAI	EO	2	2	
											SLT	5		
HV-4-4	F-10	2	A	2.000	DIAPH	A	MAN	LC	NO	FAI	EO	2	2	
											SLT	5		
PAHM-4-001A	F-13	2	A	0.750	GLOBE	A	MAN	NC	NO	FAI	EO	2	4	
											SLT	5		
PAHM-4-001B	F-13	2	A	0.750	GLOBE	A	MAN	NC	NO	FAI	EO	2	4	
											SLT	5		
PAHM-4-002A	F-11	2	A	0.750	GLOBE	A	MAN	NC	NO	FAI	EO	2	1	
											SLT	5		
[illegible]4-002B	E-12	2	A	0.750	GLOBE	A	MAN	NC	NO	FAI	EO	2	2	
											SLT	5		

P & ID: 5610-M-11 (cont) SYSTEM: CONTAINMENT VENTILATION

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
POV-4-2600	B-2	2	A	48.000	BUTFY	A	A/O	NC	YES	FC	EC	2	8	
											FS	2		
											SLT	5		
											V	5		
POV-4-2601	B-3	2	A	48.000	BUTFY	A	A/O	NC	YES	FC	EC	2	8	
											FS	2		
											SLT	5		
											V	5		
POV-4-2602	D-2	2	A	54.000	BUTFY	A	A/O	NC	YES	FC	EC	2	8	
											FS	2		
											SLT	5		
											V	5		
POV-4-2603	D-3	2	A	54.000	BUTFY	A	A/O	NC	YES	FC	EC	2	8	
											FS	2		
											SLT	5		
											V	5		
SV-4-2911	D-8	2	A	1.000	GLOBE	A	SO	NO	YES	FC	EC	3	5	
											FS	3		
											SLT	5		
											V	5		
SV-4-2912	D-8	2	A	1.000	GLOBE	A	SO	NO	YES	FC	EC	3	5	
											FS	3		
											SLT	5		
											V	5		
SV-4-2913	C-8	2	A	1.000	GLOBE	A	SO	NO	YES	FC	EC	3	5	
											FS	3		
											SLT	5		
											V	5		

P & ID: 5610-M-12 SYSTEM: CONT. & RAD. DRAINS & VENTS

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
CV-4-2821	C-9	2	A	3.000	GLOBE	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-4-2822	C-9	2	A	3.000	GLOBE	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		

P & ID: 5610-M-2 SYSTEM: CONDENSATE AND FEEDWATER

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
20-143	B-12	3	C	6.000	CHECK	A	S/A	NC	NO	----	EO	3		COMMON
20-243	C-12	3	C	6.000	CHECK	A	S/A	NC	NO	----	EO	3		COMMON
20-343	D-12	3	C	6.000	CHECK	A	S/A	NC	NO	----	EO	3		COMMON
4-20-140	B-10	2	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		
4-20-240	B-10	2	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		
4-20-340	C-11	2	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		
4-20-401	A-11	3	C	8.000	CHECK	A	S/A	NC	NO	----	EO	3		
AFPD-4-009	F-4	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		TRAIN 2
AFPD-4-011	F-4	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		TRAIN 2
[illegible]-4-013	F-4	3	C	4.000	CHECK	A	S/A	NC	NO	----	EO	3		TRAIN 2
CV-4-2816	B-10	2	B	4.000	GLOBE	A	A/O	NC	NO	FC	EO	3	4	
											FS	3		
CV-4-2817	B-11	2	B	4.000	GLOBE	A	A/O	NC	NO	FC	EO	3	4	
											FS	3		
CV-4-2818	C-11	2	B	4.000	GLOBE	A	A/O	NC	NO	FC	EO	3	4	
											FS	3		
CV-4-2831	B-10	2	B	4.000	GLOBE	A	A/O	NC	NO	FC	EO	3	4	
											FS	3		
CV-4-2832	B-11	2	B	4.000	GLOBE	A	A/O	NC	NO	FC	EO	3	4	
											FS	3		
CV-4-2833	C-11	2	B	4.000	GLOBE	A	A/O	NC	NO	FC	EO	3	4	
											FS	3		
CV-4-2900	D-7	2	C	14.000	CHECK	A	A/O	NO	NO	----	EC	2	3	
CV-4-2901	D-8	2	C	14.000	CHECK	A	A/O	NO	NO	----	EC	2	3	
[illegible]-2902	D-9	2	C	14.000	CHECK	A	A/O	NO	NO	----	EC	2	3	

P & ID: 5610-M-2 (cont) SYSTEM: CONDENSATE AND FEEDWATER

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
CV-4-6275A	C-10	2	B	6.000	GLOBE	A	A/O	NO	YES	FAI	EC	3		
											V	5		
CV-4-6275B	C-10	2	B	6.000	GLOBE	A	A/O	NO	YES	FAI	EC	3		
											V	5		
CV-4-6275C	C-11	2	B	6.000	GLOBE	A	A/O	NO	YES	FAI	EC	3		
											V	5		
FCV-4-478	C-3	2	B	14.000	GLOBE	A	A/O	NO	YES	FC	EC	2		
											FS	2	5	
											V	5		
FCV-4-479	C-4	2	B	4.000	GLOBE	A	A/O	NC	YES	FC	EC	2		
											FS	2	5	
											V	5		
FCV-4-488	C-5	2	B	14.000	GLOBE	A	A/O	NO	YES	FC	EC	2		
											FS	2	5	
											V	5		
FCV-4-489	C-6	2	B	4.000	GLOBE	A	A/O	NC	YES	FC	EC	2		
											FS	2	5	
											V	5		
FCV-4-498	C-8	2	B	14.000	GLOBE	A	A/O	NO	YES	FC	EC	2		
											FS	2	5	
											V	5		
FCV-4-499	C-8	2	B	4.000	GLOBE	A	A/O	NC	YES	FC	EC	2		
											FS	2	5	
											V	5		
MOV-4-1425	E-11	2	B	1.000	GATE	A	MO	NO	YES	FAI	EC	3		
											V	5		
MOV-4-1426	F-11	2	B	1.000	GATE	A	MO	NO	YES	FAI	EC	3		
											V	5		
MOV-4-1427	C-5	2	B	1.000	GATE	A	MO	NO	YES	FAI	EC	3		
											V	5		
[illegible]-6275A-1	E-4	2	B	0.750	GLOBE	A	SO	NC	YES	FC	EC	3		
											FS	3	6	
											V	5		

P & ID: 5610-M-2 (cont) SYSTEM: CONDENSATE & FEEDWATER

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
SV-4-6275B-1	D-4	2	B	0.750	GLOBE	A	SO	NC	YES	FC	EC	3		
											FS	3	6	
											V	5		
SV-4-6275C-1	C-4	2	B	0.750	GLOBE	A	SO	NC	YES	FC	EC	3		
											FS	3	6	
											V	5		

P & ID: 5610-M-4 SYSTEM: LUBE OIL, SERVICE & INSTR. AIR

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
4-40-336	C-8	2	AC	2.000	CHECK	A	S/A	NO	NO	----	EC	5	1	
											SLT	5		
4-40-340A	C-8	2	AC	2.000	S/CHK	A	S/A	NO	NO	----	EC	5	1	
											SLT	5		
CV-4-2803	C-8	2	B	2.000	GLOBE	P	A/O	NO	YES	FO	V	5		IWV-3700-1

P & ID: 5610-M-410-91 SYSTEM: REACTOR COOLANT (RCS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
4-518	A-11	2	AC	0.750	CHECK	A	S/A	NC	NO	----	EO	2	2	
											SLT	5		
4-519	A-11	2	AC	0.750	S/CHK	A	S/A	NC	NO	----	EO	2	2	
											SLT	5		
CV-4-516	A-12	2	A	0.375	GLOBE	A	A/O	NC	YES	FC	EC	2		
											FS	2		
											SLT	5		
											V	5	8	
CV-4-519A	A-12	2	A	3.000	DIAPH	A	A/O	NC	YES	FC	EC	2	1	
											FS	2		
											SLT	5		
											V	5		
CV-4-519B	B-11	2	A	3.000	DIAPH	P	A/O	NC	YES	FC	SLT	5		
											V	5		
[illegible]-522A	B-12	2	A	0.750	DIAPH	P	A/O	NC	YES	FC	SLT	5		
											V	5		
CV-4-522B	B-12	2	A	0.750	DIAPH	P	A/O	NC	YES	FC	SLT	5		
											V	5		
CV-4-522C	B-11	2	A	0.750	DIAPH	P	A/O	NC	YES	FC	SLT	5		
											V	5		
MOV-4-535	A-5	1	B	3.000	GATE	A	MO	NO	YES	FAI	EC	3		
											V	5		
MOV-4-536	A-5	1	B	3.000	GATE	A	MO	NO	YES	FAI	EC	3		
											V	5		
PCV-4-455C	A-5	1	B	2.000	GLOBE	A	A/O	NC	YES	FC	EO	4	6	
											FS	4		
											V	5		
PCV-4-456	A-5	1	B	2.000	GLOBE	A	A/O	NC	YES	FC	EO	4	6	
											FS	4		
											V	5		
[illegible]4-551A	A-7	1	C	4.000	SAFE	A	S/A	NC	NO	----	TF-5	8		

P & ID: 5610-M-410-91 (cont) SYSTEM: REACTOR COOLANT (RCS))

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
RV-4-551B	A-7	1	C	4.000	SAFE	A	S/A	NC	NO	----	TF-5	8		
RV-4-551C	A-6	1	C	4.000	SAFE	A	S/A	NC	NO	----	TF-5	8		
SV-4-6318A	A-8	2	B	1.000	GLOBE	A	SO	LC	YES	FC	EC	4	5	
											FS	4		
											V	5		
SV-4-6318B	A-8	2	B	1.000	GLOBE	A	SO	LC	YES	FC	EC	4	5	
											FS	4		
											V	5		
SV-4-6319A	A-9	2	B	1.000	GLOBE	A	SO	LC	YES	FC	EC	4	4	
											FS	4		
											V	5		
SV-4-6319B	A-9	2	B	1.000	GLOBE	A	SO	LC	YES	FC	EC	4	4	
											FS	4		
											V	5		
SV-4-6320A	A-9	2	B	1.000	GLOBE	A	SO	LC	YES	FC	EC	4	5	
											FS	4		
											V	5		
SV-4-6320B	A-9	2	B	1.000	GLOBE	A	SO	LC	YES	FC	EC	4	5	
											FS	4		
											V	5		
SV-4-6385	A-12	2	A	0.375	GLOBE	A	SO	NC	YES	FC	EC	2	3	
											FS	2		
											SLT	5		
											V	5	8	

P & ID: 5610-M-420-3 SYSTEM: CHEM. VOL. CONT. (CVCS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
4-298A	A-20	1	AC	2.000	CHECK	A	S/A	NO	NO	----	EC	5	13	
											SLT	5		
4-298B	A-19	1	AC	2.000	CHECK	A	S/A	NO	NO	----	EC	5	13	
											SLT	5		
4-298C	A-19	1	AC	2.000	CHECK	A	S/A	NO	NO	----	EC	5	13	
											SLT	5		
4-312A	C-19	1	C	3.000	CHECK	A	S/A	NC	NO	----	EO	2	10	
4-312B	C-19	1	C	3.000	CHECK	A	S/A	NC	NO	----	EO	2	10	
4-312C	C-17	1	AC	3.000	CHECK	A	S/A	NO	NO	----	EC	5	14	
											SLT	5		
4-333	C-17	2	A	3.000	GLOBE	P	MAN	NC	NO	FAI	SLT	5		
[illegible]1	A-12	2	C	2.000	CHECK	A	S/A	NC	NO	----	EO	2	11	
4-357	A-13	2	C	4.000	CHECK	A	S/A	NC	NO	----	EO	2	12	
4-397C	A-7	2	A	2.000	CHECK	A	S/A	NC	NO	----	EO	2	15	
4-397D	A-7	2	A	2.000	CHECK	A	S/A	NC	NO	----	EO	2	15	
CV-4-200A	D-19	1	A	2.000	GLOBE	A	A/O	NC	YES	FC	EC	2	1	
											FS	2		
											SLT	5		
											V	5		
CV-4-200B	D-18	1	A	2.000	GLOBE	A	A/O	NC	YES	FC	EC	2	1	
											FS	2		
											SLT	5		
											V	5		
CV-4-200C	D-18	1	A	2.000	GLOBE	A	A/O	NO	YES	FC	EC	2	1	
											FS	2		
											SLT	5		
											V	5		

P & ID: 5610-M-420-3 (cont) SYSTEM: CHEM. VOL. CONT. (CVCS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
CV-4-204	D-17	2	A	2.000	GLOBE	A	A/O	NO	YES	FC	EC	2	2	
											FS	2		
											SLT	5		
											V	5		
CV-4-310A	C-19	1	B	3.000	GLOBE	A	A/O	NO	YES	FO	EO	2	6	
											FS	2		
											V	5		
CV-4-310B	C-19	1	B	3.000	GLOBE	A	A/O	NC	YES	FO	EO	2	6	
											FS	2		
											V	5		
HCV-4-121	C-17	2	A	3.000	GLOBE	A	A/O	NO	NO	FO	EO	2	5	
											FS	2		
											SLT	5		
LCV-4-115B	A-14	2	B	4.000	BUTFY	A	A/O	NC	YES	FC	EO	2	8	
											FS	2		
											V	5		
LCV-4-115C	C-14	2	B	4.000	GATE	A	MO	NO	YES	FAI	EC	2	7	
											V	5		
MOV-4-350	A-12	2	B	2.000	GATE	A	MO	NC	YES	FAI	EO	3		
											V	5		
MOV-4-381	B-16	2	A	3.000	GATE	A	MO	NO	YES	FAI	EC	4	3	
											SLT	5		
											V	5		
MOV-4-6386	B-16	2	A	3.000	GATE	A	MO	NO	YES	FAI	EC	4	3	
											SLT	5		
											V	5		

P & ID: 5610-M-450-53 SYSTEM: AUX. COOL. RES. HEAT REM.

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
4-753A	F-7	2	C	10.000	CHECK	A	S/A	NC	NO	----	EO	2	2	
4-753B	H-7	2	C	10.000	CHECK	A	S/A	NC	NO	----	EO	2	2	
HCV-4-758	G-11	2	B	12.000	BUTFY	P	A/O	LO	NO	FO	---	--		IWV-3700-1
MOV-4-744A	B-12	2	B	10.000	GATE	A	MO	NC	YES	FAI	EO	2		
											V	5	1	
MOV-4-744B	B-12	2	B	10.000	GATE	A	MO	NC	YES	FAI	EO	2	1	
											V	5		
MOV-4-750	B-5	1	A	14.000	GATE	A	MO	LC	YES	FAI	EO	2	3	
											SLT	5		
											V	5		
MOV-4-751	C-5	1	A	14.000	GATE	A	MO	LC	YES	FAI	EO	2	3	
											SLT	5		
											V	5		

P & ID: 5610-M-450-54 SYSTEM: SPENT FUEL PIT COOLING

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
4-911	F-5	3	C	8.000	CHECK	A	S/A	NO	NO	----	EO	3		
4-914	E-5	3	C	8.000	CHECK	A	S/A	NO	NO	----	EO	3		

P & ID: 5610-M-470-5 SYSTEM: SAFETY INJECTION SYSTEM (SIS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
4-2918	B-10	2	C	2.000	CHECK	A	S/A	NC	NO	----	INSP	7	14	
4-2919	B-9	2	C	2.000	CHECK	A	S/A	NC	NO	----	INSP	7	14	
4-2920	B-9	2	C	2.000	CHECK	A	S/A	NC	NO	----	INSP	7	14	
4-2921	B-10	2	C	2.000	CHECK	A	S/A	NC	NO	----	INSP	7	14	
4-2922	B-9	2	C	2.000	CHECK	A	S/A	NC	NO	----	INSP	7	14	
4-2923	B-9	2	C	2.000	CHECK	A	S/A	NC	NO	----	INSP	7	14	
4-873A	C-15	1	AC	2.000	CHECK	A	S/A	NC	NO	----	EO	1	16	
											SLT	5		
4-873B	C-15	1	AC	2.000	CHECK	A	S/A	NC	NO	----	EO	1	16	
											SLT	5		
4-873C	C-14	1	AC	2.000	CHECK	A	S/A	NC	NO	----	EO	1	16	
											SLT	5		
4-874A	D-17	1	AC	2.000	CHECK	A	S/A	NC	NO	----	EO	1	15	
											INSP	7	22	
											SLT	5		
4-874B	D-17	1	AC	2.000	CHECK	A	S/A	NC	NO	----	EO	1	15	
											INSP	7	22	
											SLT	5		
4-875A	A-16	1	AC	10.000	CHECK	A	S/A	NC	NO	----	EO	2	9	
											INSP	7	22	
											SLT	5		
4-875B	A-17	1	AC	10.000	CHECK	A	S/A	NC	NO	----	EO	2	9	
											INSP	7	22	
											SLT	5		
4-875C	A-17	1	AC	10.000	CHECK	A	S/A	NC	NO	----	EO	2	9	
											INSP	7	22	
											SLT	5		
4-875D	B-15	1	C	10.000	CHECK	A	S/A	NC	NO	----	EO	1	17	
											INSP	7	22	

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P & ID: 5610-M-470-5 (cont) SYSTEM: SAFETY INJECTION SYSTEM (SIS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
4-875E	B-13	1	C	10.000	CHECK	A	S/A	NC	NO	----	EO	1	17	
											INSP	7	22	
4-875F	B-11	1	C	10.000	CHECK	A	S/A	NC	NO	----	EO	1	17	
											INSP	7	22	
4-876A	B-15	1	AC	8.000	CHECK	A	S/A	NC	NO	----	EO	2	7	
											SLT	5		
4-876B	A-13	1	AC	8.000	. ECK	A	S/A	NC	NO	----	EO	2	7	
											INSP	7	22	
											SLT	5		
4-876C	A-11	1	AC	8.000	CHECK	A	S/A	NC	NO	----	EO	2	7	
											INSP	7	22	
											SLT	5		
4-876D	A-13	1	AC	8.000	CHECK	A	S/A	NC	NO	----	EO	4	8	
											INSP	7	22	
											SLT	5		
4-876E	A-11	1	AC	8.000	CHECK	A	S/A	NC	NO	----	EO	4	8	
											INSP	7	22	
											SLT	5		
4-879C	C-7	2	C	3.000	CHECK	A	S/A	NC	NO	----	EO	1	19	
4-879D	C-7	2	C	3.000	CHECK	A	S/A	NC	NO	----	EO	1	19	
4-890A	B-8	2	AC	6.000	CHECK	A	S/A	NC	NO	----	INSP	7	14	
											SLT	5		
4-890B	B-8	2	AC	6.000	CHECK	A	S/A	NC	NO	----	INSP	7	14	
											SLT	5		
4-895V	D-12	2	A	0.750	GLOBE	P	MAN	LC	NO	FAI	SLT	5		
4-945E	C-9	2	AC	1.000	S/CHK	A	S/A	NC	NO	----	EC	2	5	
											SLT	5		
CV-4-855	C-9	2	A	1.000	GLOBE	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		

P & ID: 5610-M-470-5 (cont) SYSTEM: SAFETY INJECTION SYSTEM (SIS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
CV-4-855	C-9	2	A	1.000	GLOBE	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
MOV-4-843A	C-13	2	B	4.000	GATE	A	MO	NC	YES	FAI	EO	3		
											V	5		
MOV-4-843B	C-13	2	B	4.000	GATE	A	MO	NC	YES	FAI	EO	3		
											V	5		
MOV-4-856A	C-3	2	B	2.000	GLOBE	A	MO	NO	YES	FAI	EC	1	21	
											V	5		
MOV-4-856B	C-3	2	B	2.000	GLOBE	A	MO	NO	YES	FAI	EC	1	21	
											V	5		
MOV-4-860A	A-9	2	A	14.000	GATE	A	MO	NC	YES	FAI	EO	3		
											SLT	5		
											V	5		
MOV-4-860B	A-9	2	A	14.000	GATE	A	MO	NC	YES	FAI	EO	3		
											SLT	5		
											V	5		
MOV-4-861A	A-8	2	A	14.000	GATE	A	MO	NC	YES	FAI	EO	3		
											SLT	5		
											V	5		
MOV-4-861B	A-8	2	A	14.000	GATE	A	MO	NC	YES	FAI	EO	3		
											SLT	5		
											V	5		
MOV-4-862A	A-5	2	B	14.000	GATE	A	MO	LO	YES	FAI	EC	2	12	
											V	5		
MOV-4-862B	A-5	2	B	14.000	GATE	A	MO	LO	YES	FAI	EC	2	12	
											V	5		
MOV-4-863A	B-8	2	B	8.000	GATE	A	MO	LC	YES	FAI	EO	4	3	
											V	5		
[illegible]-4-863B	B-8	2	B	8.000	GATE	A	MO	LC	YES	FAI	EO	4	3	
											V	5		

P&ID: 5610-M-470-5 (cont) SYSTEM: SAFETY INJECTION SYSTEM (SIS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
MOV-4-864A	D-2	2	B	16.000	GATE	A	MO	LO	YES	FAI	EC	1	11	
											V	5		
MOV-4-864B	D-2	2	B	16.000	GATE	A	MO	LO	YES	FAI	EC	1	11	
											V	5		
MOV-4-865A	B-15	2	B	10.000	GATE	P	MO	LO	YES	FAI	V	5		IWV-3700-1
MOV-4-865B	B-13	2	B	10.000	GATE	P	MO	LO	YES	FAI	V	5		IWV-3700-1
MOV-4-865C	B-11	2	B	10.000	GATE	P	MO	LO	YES	FAI	V	5		IWV-3700-1
MOV-4-866A	D-15	1	B	2.000	GLOBE	A	MO	LC	YES	FAI	EO	2	6	
											V	5		
MOV-4-866B	D-15	1	B	2.000	GLOBE	A	MO	LC	YES	FAI	EO	2	6	
											V	5		
MOV-4-869	D-12	2	B	3.000	GATE	A	MO	NC	YES	FAI	EO	3		
											V	5		
MOV-4-872	A-7	2	A	8.000	GATE	A	MO	NC	YES	FAI	EO	4	4	
											SLT	5		
											V	5		
MOV-4-880A	B-7	2	A	6.000	GATE	A	MO	NC	YES	FAI	EO	3		
											SLT	5		
											V	5		
MOV-4-880B	B-7	2	A	6.000	GATE	A	MO	NC	YES	FAI	EO	3		
											SLT	5		
											V	5		
MOV-878B	C-7	2	B	4.000	GATE	A	MO	NO	YES	FAI	EC	2	10	
											V	5		
SV-4-2905	C-10	2	B	2.000	GLOBE	A	SO	NC	YES	FC	EO	1	13	
											FS	1		
											V	5		
SV-4-2906	C-10	2	B	2.000	GLOBE	A	SO	NC	YES	FC	EO	1	13	
											FS	1		
											V	5		

P & ID: 5610-M-470-5 (cont) SYSTEM: SAFETY INJECTION SYSTEM (SIS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
SV-4-2907	C-9	2	B	2.000	GLOBE	A	SO	NC	YES	FC	EO	1	13	
											FS	1		
											V	5		
SV-4-2908	C-9	2	B	2.000	GLOBE	A	SO	NC	YES	FC	EO	1	13	
											FS	1		
											V	5		
SV-4-2909	C-9	2	B	2.000	GLOBE	A	SO	NC	YES	FC	EO	1	13	
											FS	1		
											V	5		
SV-4-2910	C-9	2	B	2.000	GLOBE	A	SO	NC	YES	FC	EO	1	13	
											FS	1		
											V	5		

P & ID: 5610-M-470-57 SYSTEM: AUX. COOL. COMP. COOL. (ACCC)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
4-702A	C-11	3	C	16.000	CHECK	A	S/A	NO	NO	----	EC	3		
4-702B	B-11	3	C	16.000	CHECK	A	S/A	NO	NO	----	EC	3		
4-702C	B-11	3	C	16.000	CHECK	A	S/A	NO	NO	----	EC	3		
CV-4-739	G-7	3	B	3.000	GLOBE	A	A/O	NO	NO	FC	EC	3		
											FS	3		
FCV-4-626	B-13	2	B	3.000	GATE	A	MO	NO	YES	FAI	EC	2	6	
											V	5		
MOV-4-716A	B-18	2	B	6.000	GATE	A	MO	NO	YES	FAI	EC	2	3	
											V	5		
MOV-4-716B	B-17	2	B	6.000	GATE	A	MO	NO	YES	FAI	EC	2	3	
											V	5		
MOV-4-730	C-13	2	B	6.000	GATE	A	MO	NO	YES	FAI	EC	2	5	
											V	5		
MOV-4-749A	D-5	3	B	16.000	GATE	A	MO	NC	YES	FAI	EO	3		
											V	5		
MOV-4-749B	C-6	3	B	16.000	GATE	A	MO	NC	YES	FAI	EO	3		
											V	5		

P & ID: 5610-M-480-1 SYSTEM: SAMPLING (SS)

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
CV-4-951	H-12	2	A	0.375	GLOBE	P	A/O	NC	YES	FC	SLT	5		
											V	5		
CV-4-953	H-12	2	A	0.375	GLOBE	P	A/O	NC	YES	FC	SLT	5		
											V	5		
CV-4-955C	F-12	2	A	0.375	GLOBE	P	A/O	NC	YES	FC	SLT	5		
											V	5		
CV-4-955D	F-12	2	A	0.375	GLOBE	P	A/O	NC	YES	FC	SLT	5		
											V	5		
CV-4-955E	F-12	2	A	0.375	GLOBE	P	A/O	NC	YES	FC	SLT	5		
											V	5		
CV-4-956A	H-11	2	A	0.375	GLOBE	A	A/O	NC	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-4-956B	H-11	2	A	0.375	GLOBE	A	A/O	NC	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-4-956D	F-11	2	A	0.375	GLOBE	A	A/O	NC	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
SV-4-6427A	G-12	2	A	0.375	GLOBE	A	SO	NC	YES	FC	EC	3	2	
											FS	3		
											SLT	5		
											V	5		
SV-4-6427B	G-12	2	A	0.375	GLOBE	A	SO	NC	YES	FC	EC	3	2	
											FS	3		
											SLT	5		
											V	5		
SV-4-6428	G-11	2	A	0.375	GLOBE	A	SO	NC	YES	FC	EC	3	2	
											FS	3		
											SLT	5		
											V	5		

P & ID: 5610-M-5 SYSTEM: INTAKE COOL WATER

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
4-50-311	F-3	3	C	24.000	CHECK	A	S/A	NO	NO	----	EC	3		
4-50-321	F-5	3	C	24.000	CHECK	A	S/A	NO	NO	----	EC	3		
4-50-331	F-5	3	C	24.000	CHECK	A	S/A	NO	NO	----	EC	3		

P & ID: 5610-M-500-27 SYSTEM: WASTE DISPOSAL-LIQUID

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
CV-4-4658A	C-7	2	A	0.750	DIAPH	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-4-4658B	C-6	2	A	0.750	DIAPH	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-4-4659A	C-7	2	A	0.750	DIAPH	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-4-4659B	C-6	2	A	0.750	DIAPH	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-4-4668A	B-7	2	A	3.000	DIAPH	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
CV-4-4668B	B-6	2	A	3.000	DIAPH	A	A/O	NO	YES	FC	EC	3		
											FS	3		
											SLT	5		
											V	5		
PCV-4-1014	D-6	2	A	1.000	GLOBE	P	A/O	NC	NO	FC	SLT	5		

P & ID: 5610-M-7 SYSTEM: DIESEL OIL

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
70-006B	B-4	3	C	2.000	CHECK	A	S/A	NC	NO	----	EO	3		
CV-2046B	C-3	3	B	2.000	GLOBE	A	A/O	NC	NO	FC	EO	3	2	
SV-2051B	B-3	3	B	2.000	GLOBE	A	SO	NC	NO	FC	EO	3	3	
SV-3522B	D-5	3	B	1.500	GLOBE	A	SO	NC	NO	----	EO	3	1	

P & ID: VARIOUS SYSTEM: TEST CONNECTION

VALVE NUMBER	COORD.	CL	CAT.	SIZE	TYPE	A/P	ACT. TYPE	NORM POS.	REM IND	FAIL MODE	EXAM	TEST FREQ	RELIEF REQ.	REMARKS
4-2023		2	A	0.375	GLOBE	P	MAN	NC	NO	FAI	SLT	5		
4-2024		2	A	0.375	GLOBE	P	MAN	NC	NO	FAI	SLT	5		
4-2025		2	A	0.375	GLOBE	P	MAN	NC	NO	FAI	SLT	5		
4-2026		2	A	0.375	GLOBE	P	MAN	NC	NO	FAI	SLT	5		

ENCLOSURE 1

LIST OF ATTENDEES

NRC

H. N. Berkow, Director, Project Directorate II-2, NRR
R. W. Borchardt, Regional Coordinator, OEDO
R. C. Butcher, Senior Resident Inspector, Turkey Point
S. D. Ebneter, Regional Administrator, RII
G. E. Edison, Licensing Project Manager, NRR
B. K. Grimes, Deputy Regional Administrator (Acting), RII
C. W. Hehl, Deputy Director, Division of Reactor Projects, RII
G. A. Schnebli, Resident Inspector, Turkey Point
M. V. Sinkule, Branch Chief, Division of Reactor Projects, RII
S. A. Varga, Director, Division of Reactor Projects I/II, NRR

FP&L

R. J. Acosta, Acting Vice President, Nuclear Energy
J. Arias, Jr., Technical Assistant to Plant Manager
K. E. Beatty, Training Superintendent
L. W. Bladow, Quality Assurance Superintendent
D. A. Chaney, Director, Nuclear Licensing
J. E. Cross, Plant Manager
R. J. Earl, Quality Control Supervisor
S. T. Hale, Engineering Project Manager
K. N. Harris, Site Vice President, PTN
J. B. Hosmer, Director, Nuclear Engineering
V. A. Kaminskas, Technical Department Supervisor
L. W. Pearce, Operations Superintendent
O. F. Pearson, Vice President
C. A. Pell, Assistant to Senior VP - Nuclear Operations
D. R. Powell, Supervisor - Regulation Compliance (effective 8/1/89)
G. M. Smith, Services Manager - Nuclear
R. J. Stevens, Manager, Plant Licensing
R. E. Tallon, President
M. Wayland, Assistant Maintenance Superintendent
J. G. West, Manager, Nuclear Security
C. O. Woody, Acting Senior Vice President - Nuclear
H. T. Young, Project Site Manager

ENCLOSURE 2

AGENDA

NRC/FPL SENIOR MANAGEMENT MEETING

JULY 19, 1989

12:30 PM
TRAINING BUILDING - ROOM 123

INTRODUCTION	
Plant Status Operating Events	J. E. Cross
MANAGEMENT ISSUES	
General IMA Status	K. N. Harris
QA's IMA Assessment	L. W. Bladow
INPO Exit Overview	C. A. Pell
MAINTENANCE	
MTI Findings, Status of Implementation and Improvements	J. E. Cross/M. Wayland
ENGINEERING	
Drawing Update Progress and Controls PRA	S. T. Hale
TRAINING	
Fifth Shift of Operators	K. E. Beatty
SECURITY	
Turnover Overtime Maintenance Support Software Refurbishment	J. G. West

(Adjourn by 4:00 pm)

ENCLOSURE 3

MEETING SUMMARY

This meeting was the twelfth in a series of management meetings between the NRC and Florida Power and Light following the issuance of Confirmatory Order 87-85 in October 1987. The previous meeting was held on May 10, 1989.

A plant tour was conducted by the Resident Inspectors to update NRC management on plant conditions. The formal meeting was opened by Mr. K. Harris. Mr. J. Cross gave a brief summary of plant status and recent operational events. He emphasized the demonstration of cooldown from outside the control room, the pressure binding of the residual heat removal suction valves, 4-750/4-751, a 100 percent pass rate for the operations fundamentals test conducted at Atlanta, Georgia, and two inadvertent safety injection actuations due to switch labeling and post maintenance testing deficiencies. Mr. Harris discussed the IMA status. Mr. Bladow discussed QA's assessment of the IMA implementation and Mr. Pell discussed the INPO exit in terms of major concerns and good practices. Mr. Cross addressed improvement in several key indicators in maintenance. Mr. Wayland discussed maintenance indicators in general and assessed progress. Mr. Hale discussed the drawing update progress and the PRA status. Mr. Beatty discussed training issues and efforts to improve the training program. Mr. Beatty is now the Training Superintendent. Mr. West discussed key indicators in the security area and actions taken to stabilize the security force.

Mr. Ebneter made the following closing remarks regarding impressions gained during this meeting period:

- The physical condition of the plant has improved.
- The NRC has confidence in Mr. Harris and Mr. Cross.
- Engineering is vital to helping improve Turkey Point.
- Incentive programs appear to be well planned/developed.
- FP&L has a good drug program. The recent drug allegations were proven inaccurate by the extensive actions taken by FP&L.
- NRC needs to see more progress to justify confidence.
- Encouraged by what we see.

TABLE 1

OVERALL EFFECTIVENESS INDICATORS OF IMA ACTIVITY

I. Automatic Trip Rate
II. Unplanned Days Off Line
III. Equivalent Availability
IV. Personnel Exposure
V. NRC Violations
VI. Lost Time Injury Rate
VII. O&M Budget Variance
VIII. Safety System Activations
IX. Significant Events
X. Safety System Failures
XI. Forced Outage Rate
XII. Equipment Forced Outages/ 1000 Critical Hours

TABLE 2

ROUTINELY MONITORED LOWER LEVEL IMA INDICATORS

NOTE: THIS LIST OF INDICATORS MAY CHANGE DUE TO NEW CHALLENGES, CHANGES IN PRIORITY OR PROCESS.

CORPORATE AND SITE INDICATORS

LCO HOURS AT POWER
LER'S
UNPLANNED SHUTDOWNS PER OPERATING MONTH
MEAN TIME BETWEEN FAILURE
PERSONNEL CONTAMINATION
CONTAMINATED FLOOR SPACE
OVERTIME

SECURITY

SECURITY FORCE OVERTIME
SECURITY FORCE TURNOVER
MANNING LEVEL
TOTAL LOGGABLE EVENTS
TASK CERTIFICATION
COMPENSATORY HOURS

MAINTENANCE

CONTROL ROOM DEFICIENCY TAGS
CORRECTIVE MAINTENANCE BACKLOG
PM/CM RATIO (PM/PM+CM)

OPERATIONS

FUEL RELIABILITY
SOLID (RADIOACTIVE) WASTE DISPOSED

TECHNICAL SUPPORT

LCO HOURS BY SYSTEM
PC/M'S
SAFETY SYSTEM UNAVAILABILITY (D/G, AFW, SI)
HEAT RATE (THERMAL EFFICIENCY)

ENGINEERING

TOTAL DRAWING UPDATE WORK-OFF
PLANT OPERATING DOCUMENT STATUS
INPO SCHEDULE INDICATOR

TRAINING

LICENSED OPERATOR REQUAL EXAM PASS RATE
NON-LICENSED OPERATOR EXAM PASS RATE
INITIAL OPERATOR LICENSE EXAM PASS RATE
NRC SRO UPGRADE EXAM PASS RATE
NRC REQUAL EXAM PASS RATE
TRAINING ATTENDANCE RATES
NUMBER OF QUALIFIED RO'S/SRO'S
INITIAL LICENSE OPERATOR COMPLETION RATE
OVERTIME

QUALITY ASSURANCE DEPARTMENT
ASSESSMENT OF IMA COUNTERMEASURES

0 INDEPENDENT CHECK MECHANISM

0 TOP PRIORITY JOB

0 OBJECTIVES
- IMPLEMENTATION
- QUALITY
- EFFECTIVENESS

0 PERFORMED TWO ASSESSMENTS
- MARCH 22, 1989
- JULY 12, 1989

- DO YOU KNOW OF, OR ARE YOU FAMILIAR WITH YOUR DEPARTMENT'S GOALS AND ASSOCIATED TARGETS?

- DO YOU KNOW WHERE TO FIND THE STATUS OF EACH OF YOUR DEPARTMENT'S GOALS?

- DO YOU BELIEVE THAT THEY ARE MEANINGFUL?

- DURING DEPARTMENT MEETINGS, ARE GOALS AND TARGETS DISCUSSED?

- IS YOUR INPUT SOLICITED?

- DO YOU BELIEVE THAT YOU CAN CONTRIBUTE TO MEETING YOUR DEPARTMENT'S GOALS?

- ARE YOU SATISFIED WITH THE AMOUNT OF INFORMATION YOU RECEIVE REGARDING DEPARTMENTAL AND SITE GOALS?

- DO YOU KNOW WHAT YOUR SUPERVISOR EXPECTS FROM YOU REGARDING THESE GOALS?

- DO YOU KNOW WHAT DIRECTION YOUR DEPARTMENT IS GOING (BETTER OR WORSE)?

Appendix 1: MAJO[illegible]A ACTIVITIES REMAINING ESTIMATED COMPLETION DATES

Rev. 4/27/89

AREAS	Activity	Completion date
	1989: 2Q, 3Q, 4Q — **1990:** 1Q, 2Q, 3Q, 4Q — **1991:** 1Q, 2Q, 3Q, 4Q — **1992:** 1Q, 2Q, 3Q, 4Q	
Leadership	Effort to enhance goals, indicators and performance measures down through the departmental level, completed	July 31
Corporate Staff	Actions in place which improve mechanisms for transfer of knowledge between plants	June 1
Maintenance	Vacant supervisory/management positions filled	October 2
	Implement further systematic material condition upgrades	October 31
Training	Long term requalification recovery plan developed	May 15
	Simulator certification	December 31
	Simulator engineers on board	September 30
	Special training for Maintenance Job Planners complete	June 30
	Special training for Technical Specifications complete	December 31
	Special training for Instructor Development and Certification Program (IDCP) Pilot (SAT Courses) complete	December 31
	Special training for System Engineers and Engineering Staff complete	June 30
	Actions to reduce backlog of training material changes complete	July 30

Appendix I: MAJO... ACTIVITIES REMAINING
ESTIMATED COMPLETION DATES

Rev. 4/27/89

AREAS	Activity	Date
Engineering	Design Basis Reconstitution work on currently selected systems complete	June 30 (1989)
	Design Basis Reconstitution work on additional selected systems complete	December 31 (1990)
	PRA in place and utilized	June 30 (1991)
	Drawing Update Backlog eliminated	December 31 (1992)
Technical Support	Implement PC/M process improvements	December 31 (1989)
	Complete procedures for Root Cause Analysis Program	June 30 (1989)
	Drawing Change Request Process standardized	June 30 (1989)
	Complete Technical Support staffing (including System Engineers)	December 31 (1989)
Security	Reduction achieved in contractor security force turnover to less than or equal to 20%	December 31 (1990)
	Complete Security System Upgrades	December 31 (1991)
	Recommendations from SPEE analyzed and responsive action implemented	October 31 (1989)

Timeline quarters: 1989 (2Q, 3Q, 4Q); 1990 (1Q, 2Q, 3Q, 4Q); 1991 (1Q, 2Q, 3Q, 4Q); 1992 (1Q, 2Q, 3Q, 4Q)

Appendix I: MAJOR ACTIVITIES REMAINING
ESTIMATED COMPLETION DATES

AREAS	1989			1990				1991				1992			
	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q

Licensing

Actions in place which improve internal organization for a unified approach to NRC interface
June 15

New Technical Specifications submitted to NRC
June 5

Expected issuance of new Technical Specifications by NRC
October 2

Resource Management

Plant staffed up to authorized complement, allowing for FPL's historical Dade County personnel turnover rate
December 31

Analyze and initiate actions to effectively prioritize on-site work activities, including actions to improve Integrated Schedule System performance
July 31

Analysis and countermeasures in place to achieve a reduction of overtime
August 31

Nuclear Computerized Data Management System (NIMS) completed
December 31

Position of Security Operations Manager filled
June 1

PRIMARY REASONS OF IMPLEMENTATION INADEQUACY
NRC – MAINTENANCE INSPECTION
DEC 88

1 – HIGH EQUIPMENT FAILURE RATES

2 – POOR PLANT APPEARANCE & EQUIPMENT CONDITION

3 – ALLOCATION OF RESOURCES, PARTS, PERMANENT STAFF

4 – INADEQUATE ENGINEERING SUPPORT

5 – INSUFFICIENT QC INSPECTORS

6 – WORK ORDER CONTROLS & JOB PLANNING

7 – PROCEDURE DEVELOPMENT

8 – PARTS CONTROL

9 – TURNOVER, OVERTIME & PERFORMANCE APPRAISALS

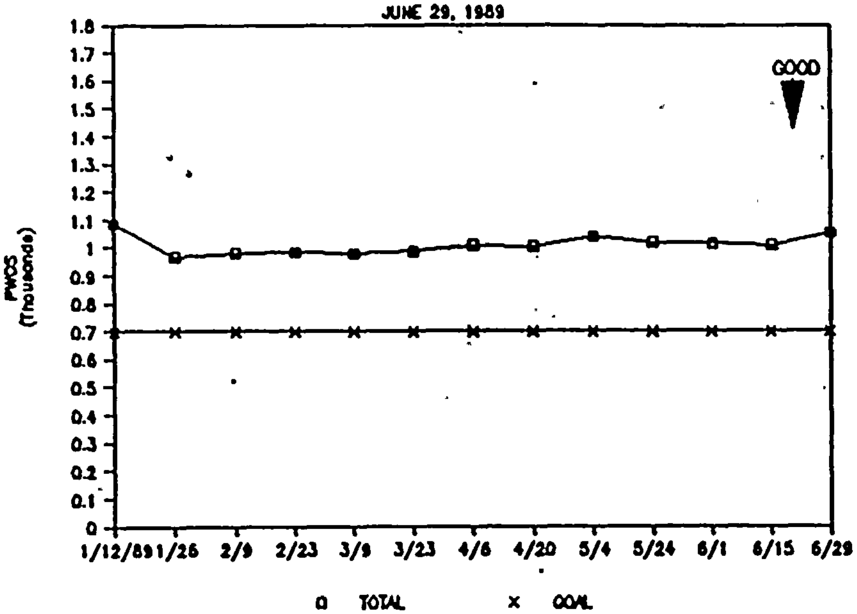
INDICATORS

- KEY INDICATORS FOR MAINTENANCE
  - UNPLANNED DAYS OFF LINE
  - BACKLOG PLANT WORK ORDERS (PWO)
  - CONTROL ROOM DEFICIENCY TAGS
  - REWORK
  - PM/PM+CM RATIO
  - VIOLATIONS
  - PERSONNEL EXPOSURE
  - INJURY RATE
  - BUDGET vs ACTUAL

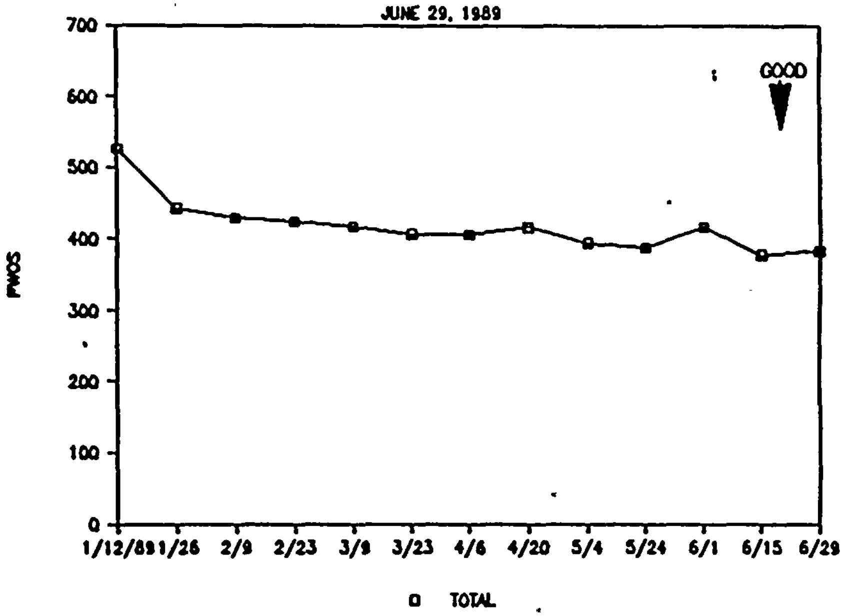
PRESENTATION OVERVIEW

- MAINTENANCE STATUS UPDATE/INDICATORS
  - UNPLANNED DAYS OFF LINE
  - BACKLOG
    - STAFFING
    - MATERIAL
    - PLANNING
    - SCHEDULING
  - REWORK
    - TECHNICAL SUPPORT
  - PM/PM+CM RATIO
  - PROCEDURES
  - PEOPLE ISSUES
    - INJURY RATE
    - EXPOSURE
    - TURNOVER
    - OVERTIME
  - MAINTENANCE MONITORING
    - MATERIAL CONDITION
    - ACCOUNTABILITY

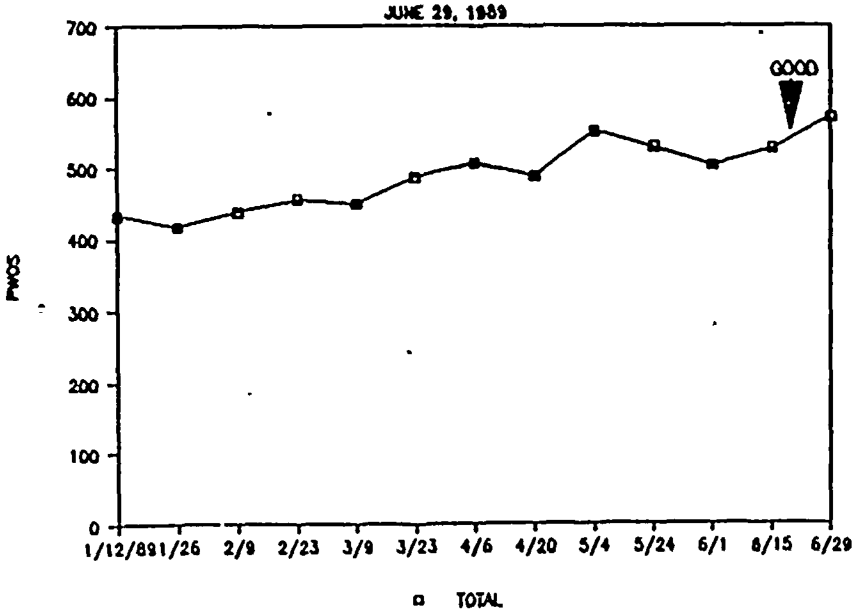
PLANT CM BACKLOG TREND CURVE



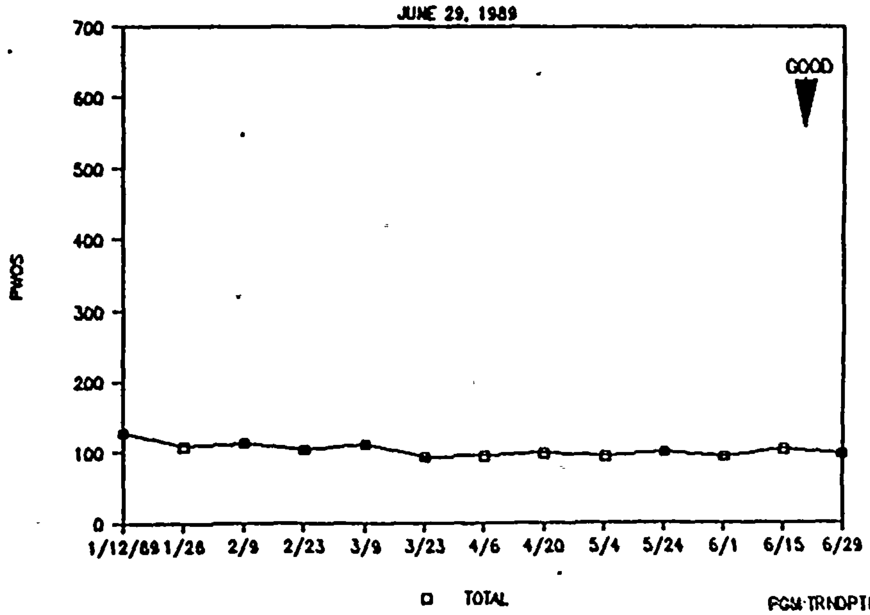
MECHANICAL CM BACKLOG TREND CURVE



I&C CM BACKLOG TREND CURVE



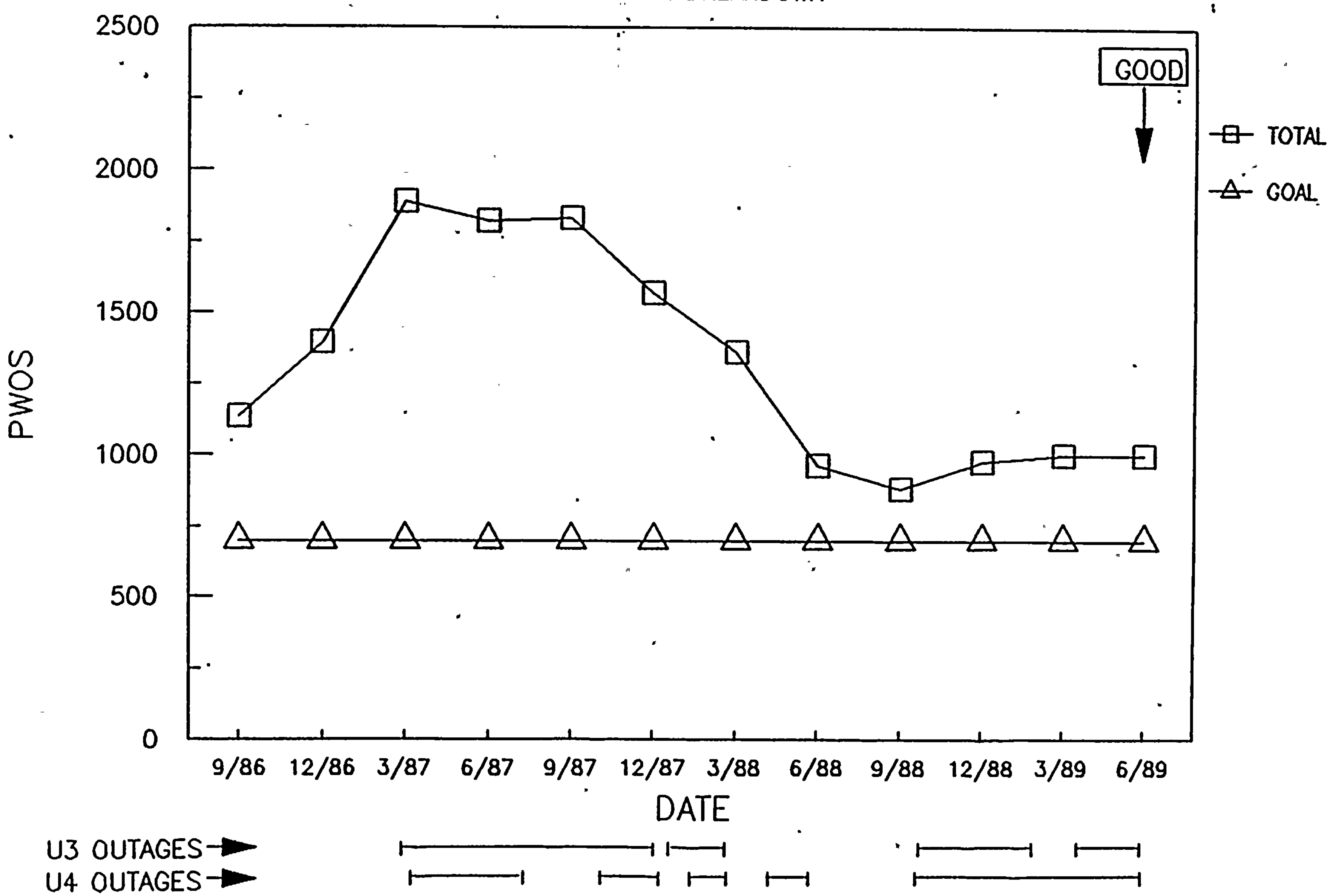
ELECTRICAL CM BACKLOG TREND CURVE



FGM:TRNDPTN

PLANT CM BACKLOG TREND CURVE

TROUBLE & BREAKDOWN



PCM:TRND88

F

6

I&C STAFFING

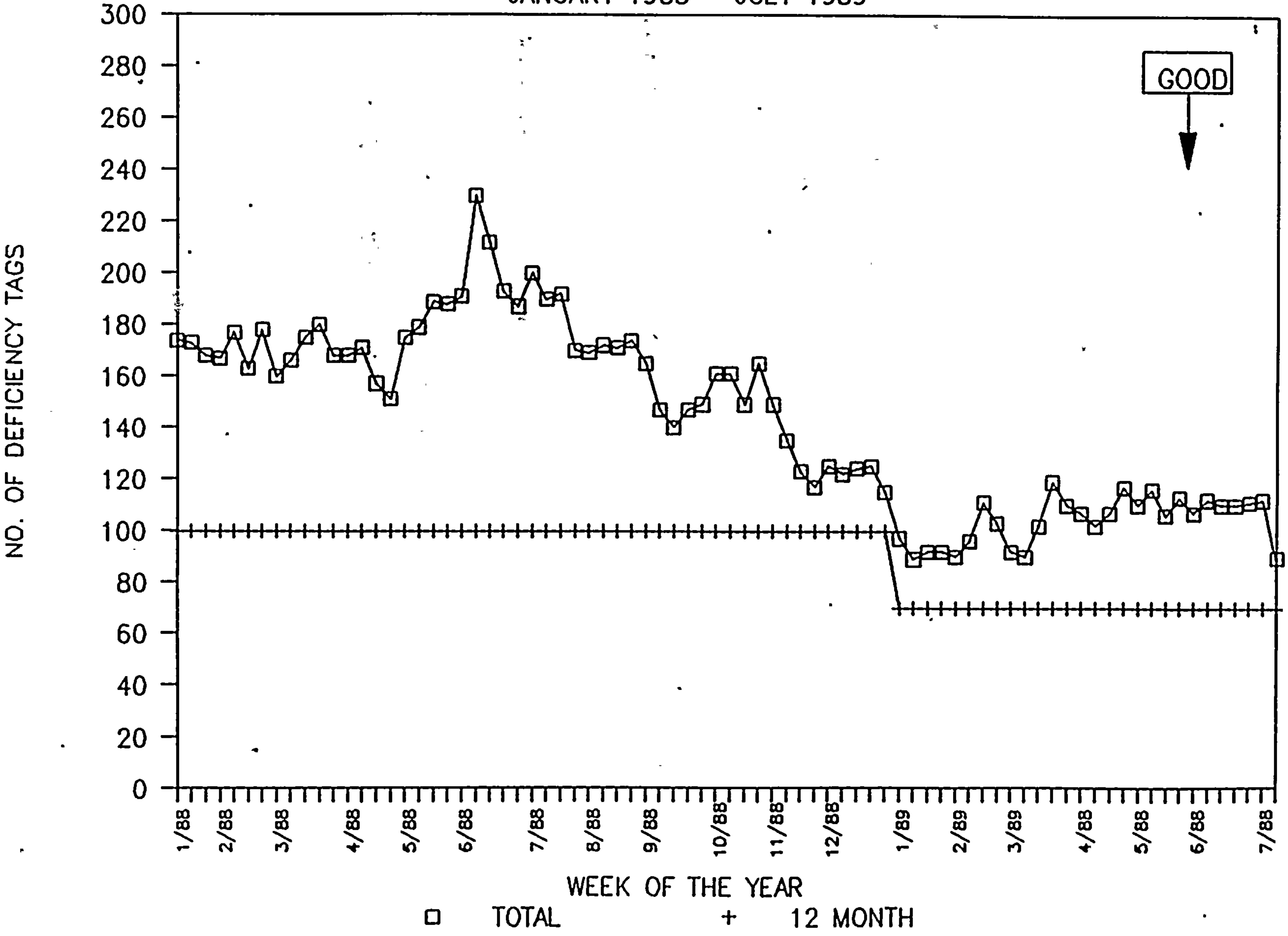
AUTHORIZED I&C SPECIALISTS	–	65
I&C SPECIALISTS ASSIGNED TO SIMULATOR	–	3
I&C POSITIONS AVAILABLE FOR PLANT MAINTENANCE	–	62

STATUS OF 62 AUTHORIZED POSITIONS

42	–	QUALIFIED I&C SPECIALISTS
4	–	NOT QUALIFIED
2	–	APPRENTICES
48	**-**	**TOTAL FP&L**
10	–	CONTRACT TECHNICIANS WORKING
58	**-**	**TOTAL WORKING - 7/19/89**
8	–	ADDITIONAL CONTRACT COMPLEMENT
66	**-**	**TARGET POSITIONS AVAILABLE TO WORK BACKLOG & EMERGENT WORK**

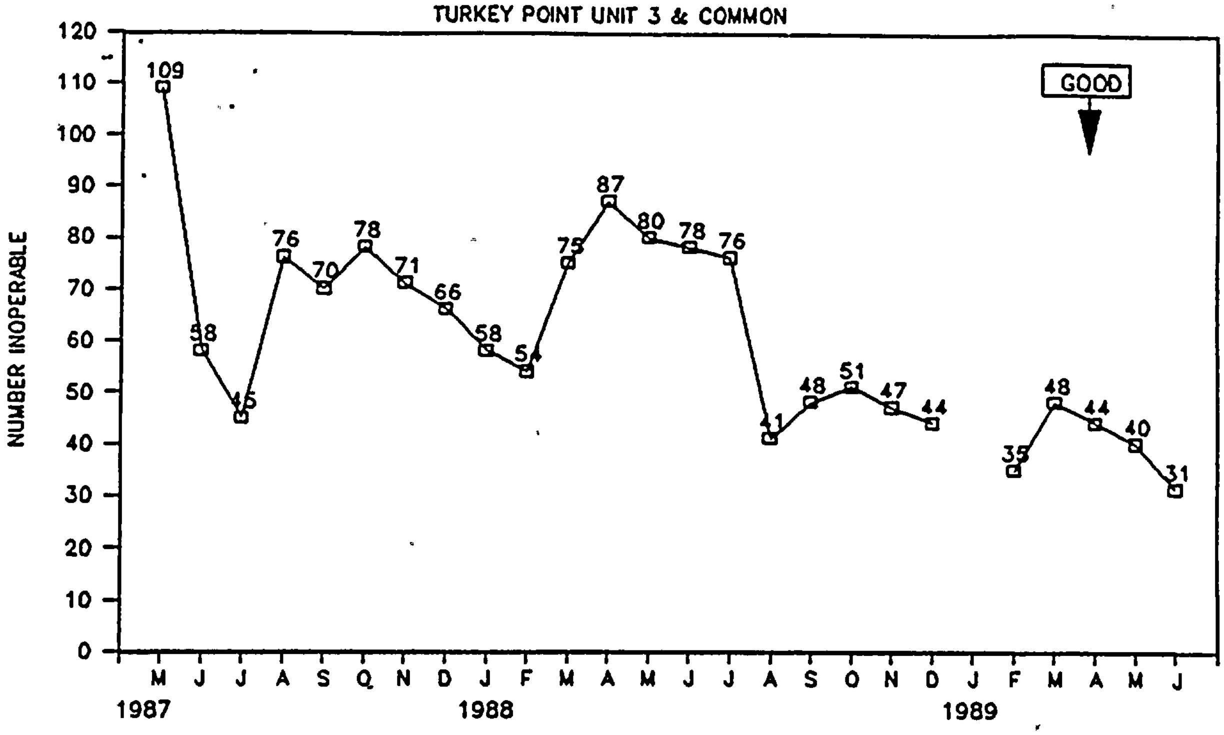
CONTROL ROOM DEFICIENCY TAGS

JANUARY 1988 – JULY 1989

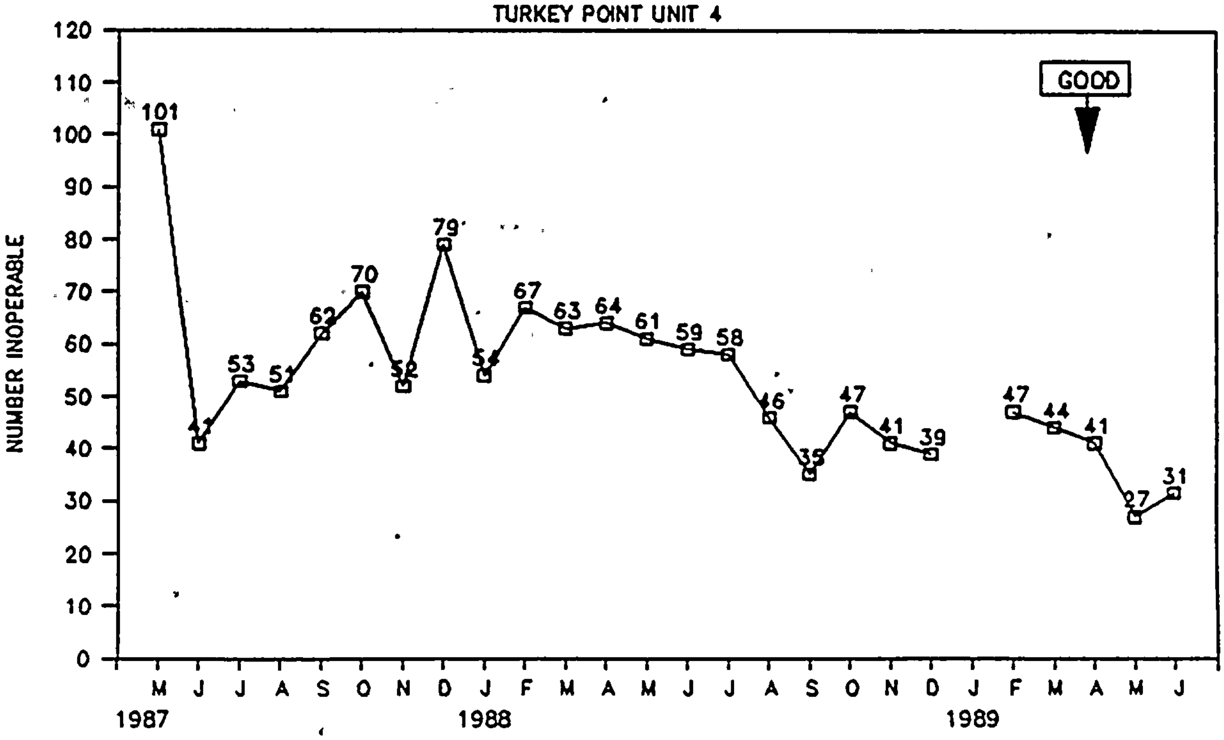


PCM:TRNDTAG

CONTROL ROOM INSTRUMENT OUT OF SERVICE

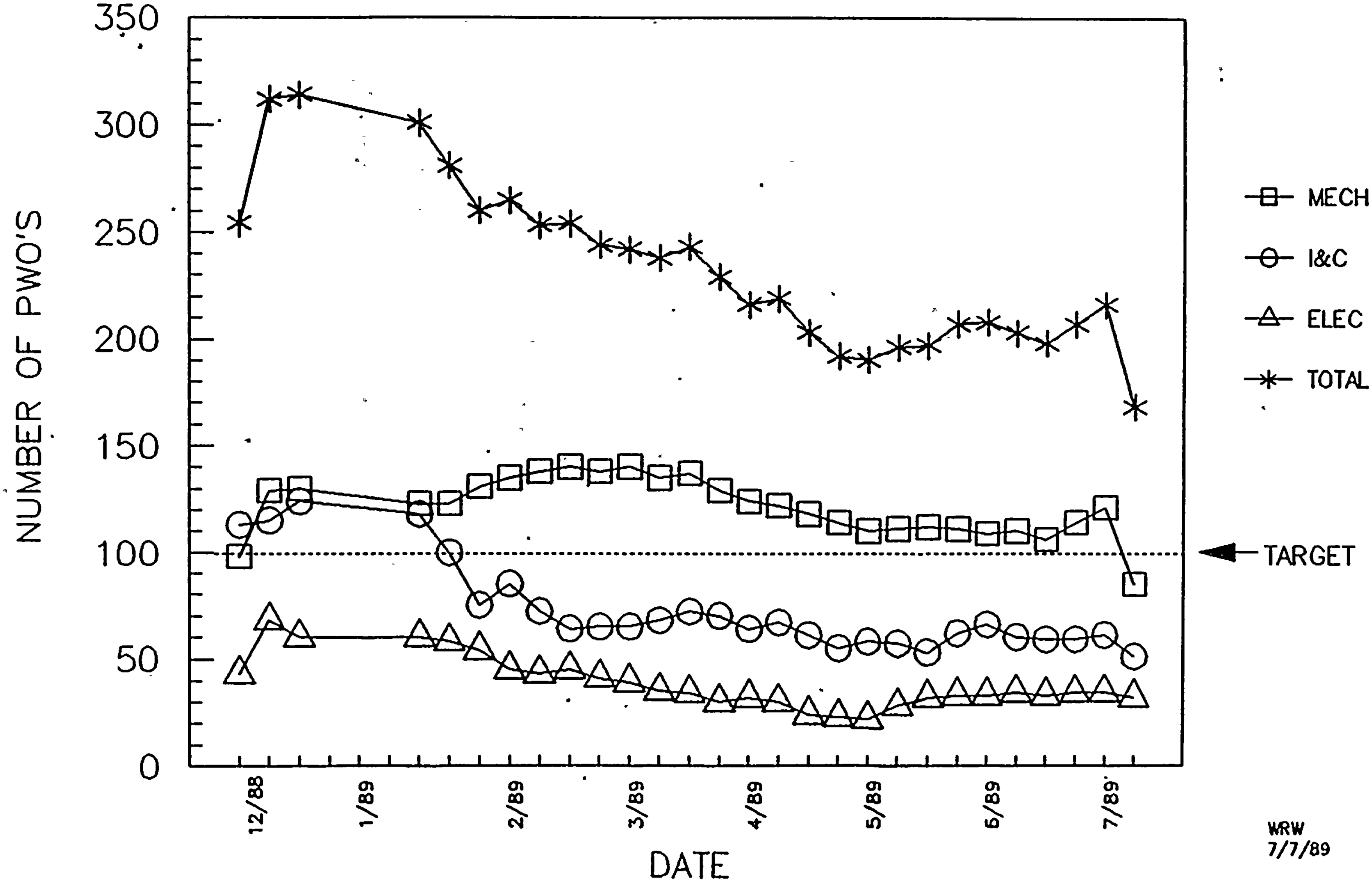


CONTROL ROOM INSTRUMENT OUT OF SERVICE



PGM-CRINOP

PWO'S AWAITING PARTS
AS OF 7/7/89



WRW
7/7/89

PGM:PWOLINE1

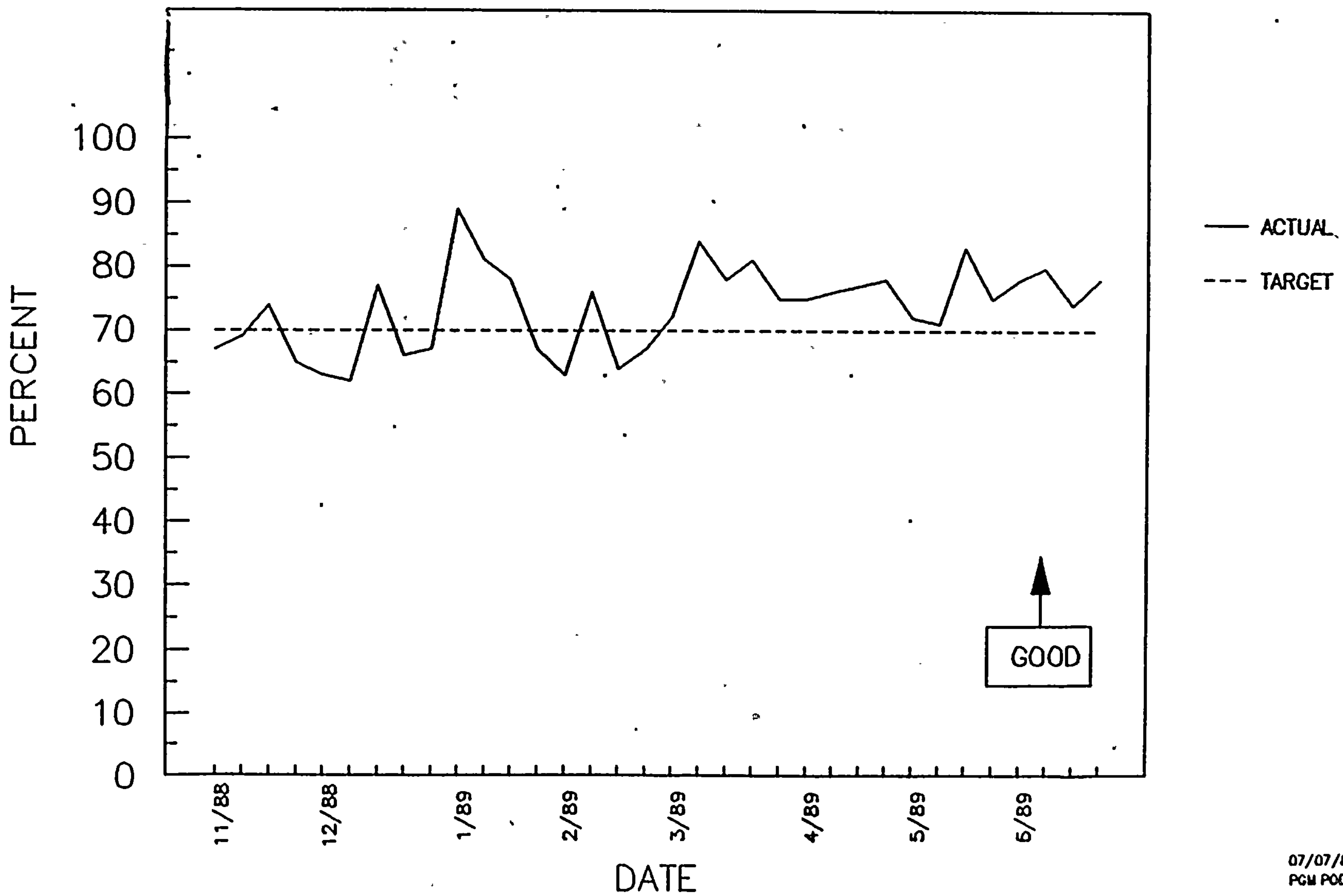
PLANNING

- NEED FOR BETTER INDICATORS

- PLANNING & WORK CONTROL REVIEW

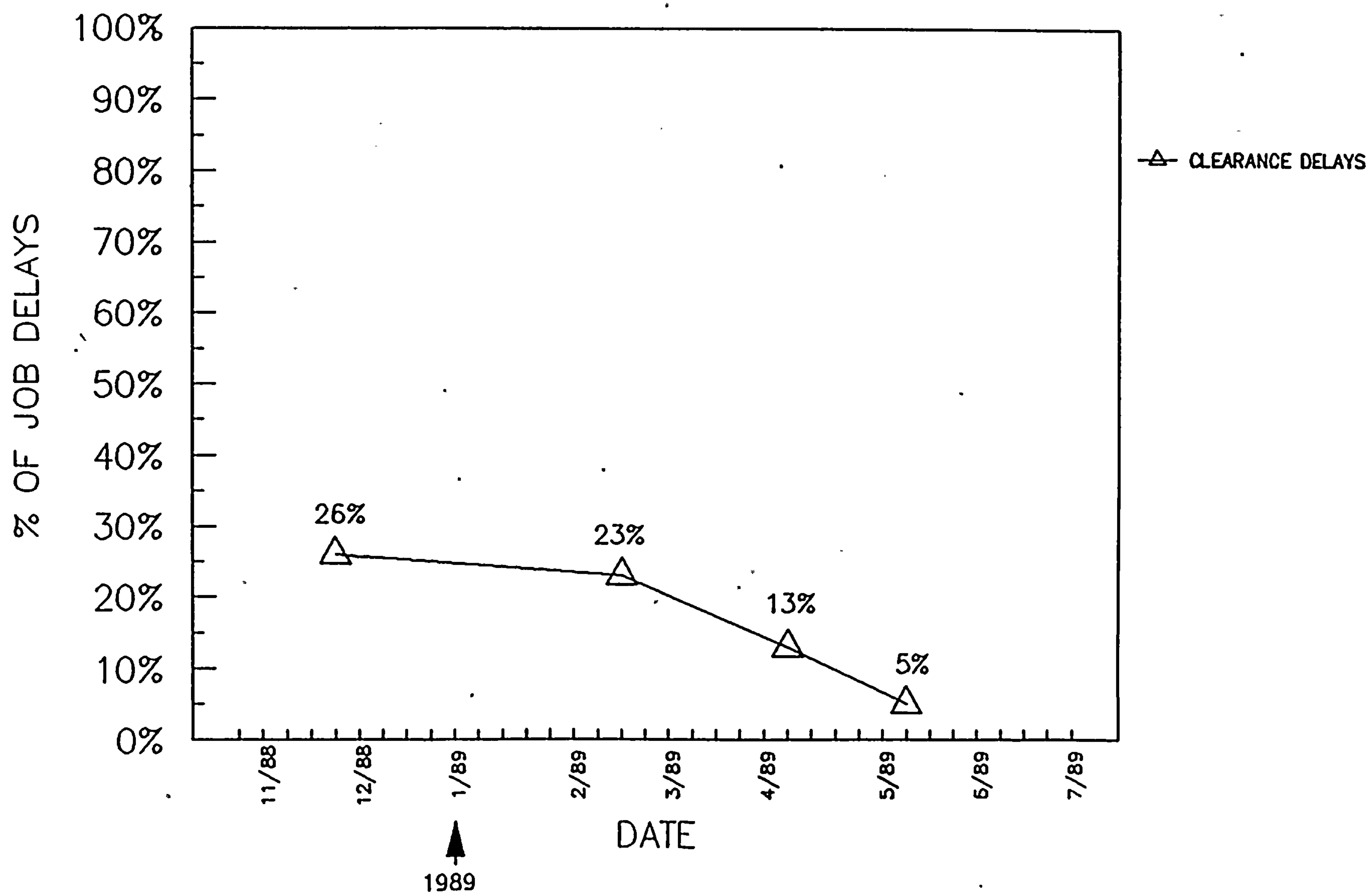
- EVALUATING TRAINING ADEQUACY

TURKEY POINT NUCLEAR PLANT
TOTAL JOB STARTS ON PLAN OF THE DAY



07/07/89 - EGK
PGM PODEFFEC

TURKEY POINT NUCLEAR PLANT
SCHEDULE START CLEARANCE DELAYS



PGM-CLRDELAY

12

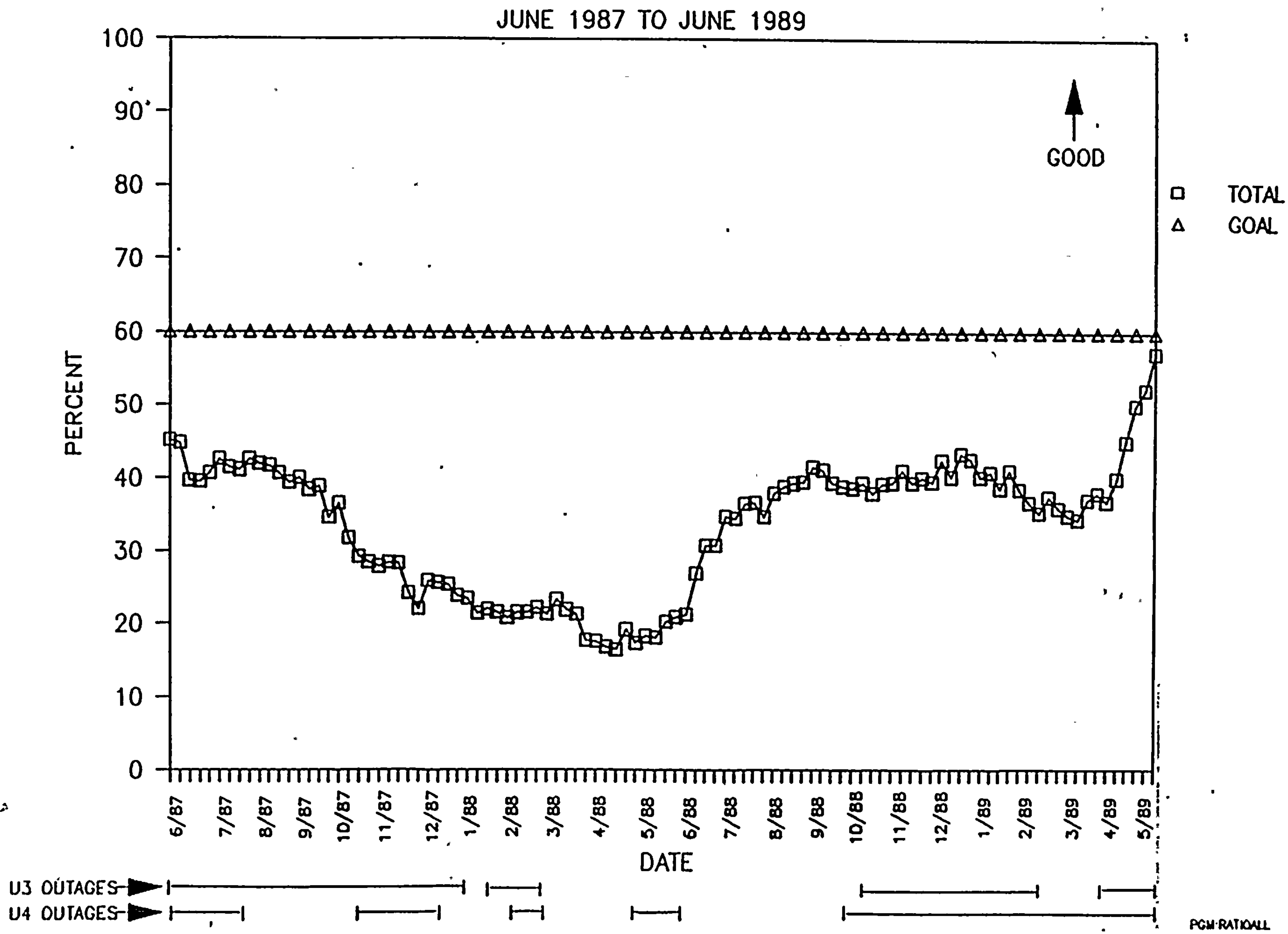
SYSTEM ENGINEERS

- PERMANENT FP&L STAFFING
- CONTRIBUTIONS

  EMERGENCY DIESEL GENERATORS
  RHR PUMP SEALS
  CCW HEAT EXCHANGERS

- LCO ANALYSIS
- SYSTEM ENGINEER / MAINTENANCE TEAMWORK

PLANT MAINTENANCE PM/PM+CM RATIO



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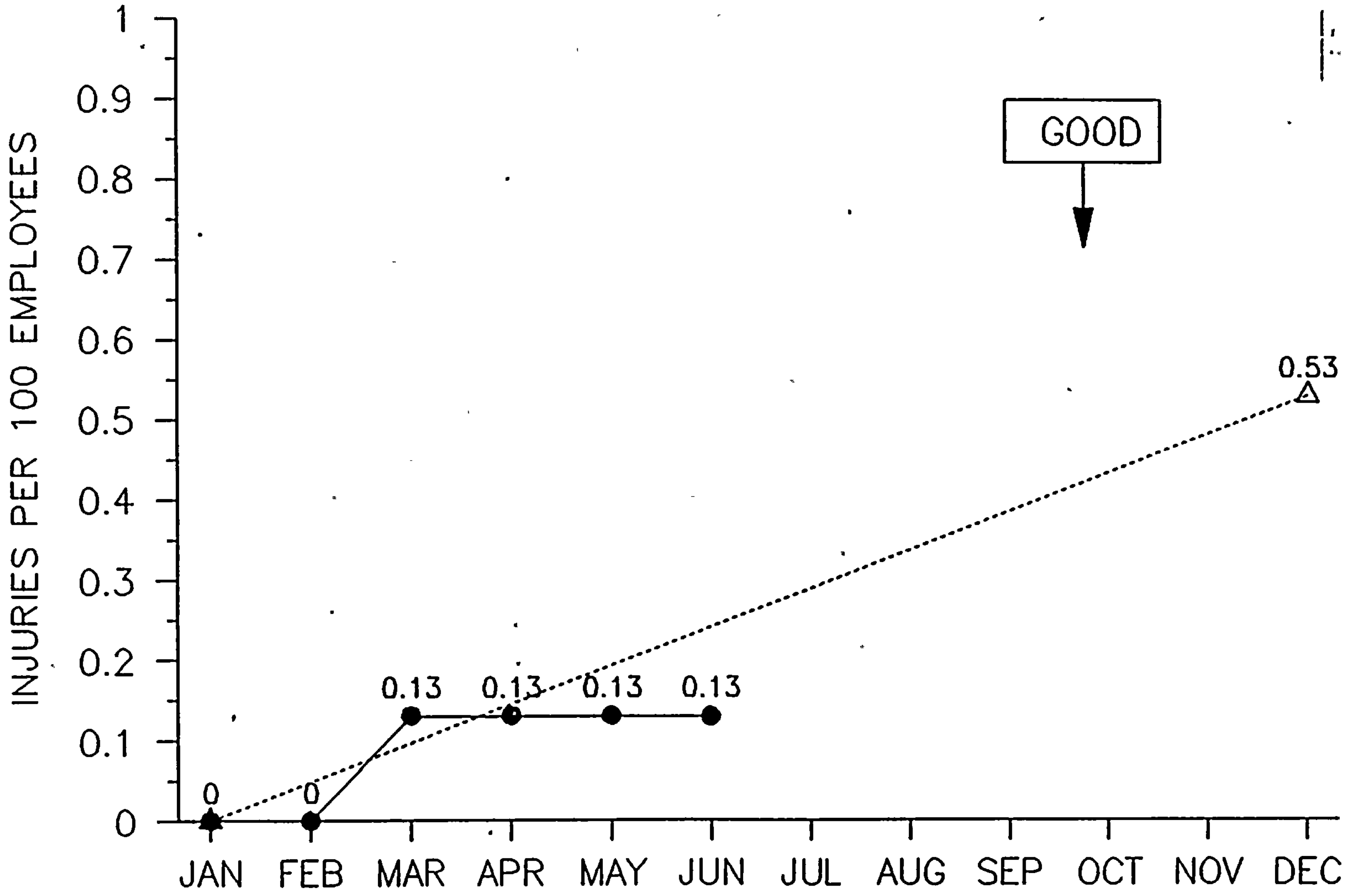
PROCEDURES

- PREPARATION CHECKLIST
- PLANT CHANGE UPDATE PROCESS
- FIRST USE VALIDATION
- MAINTENANCE FEEDBACK SESSIONS / REVIEW OF "PROBLEM" PROCEDURES

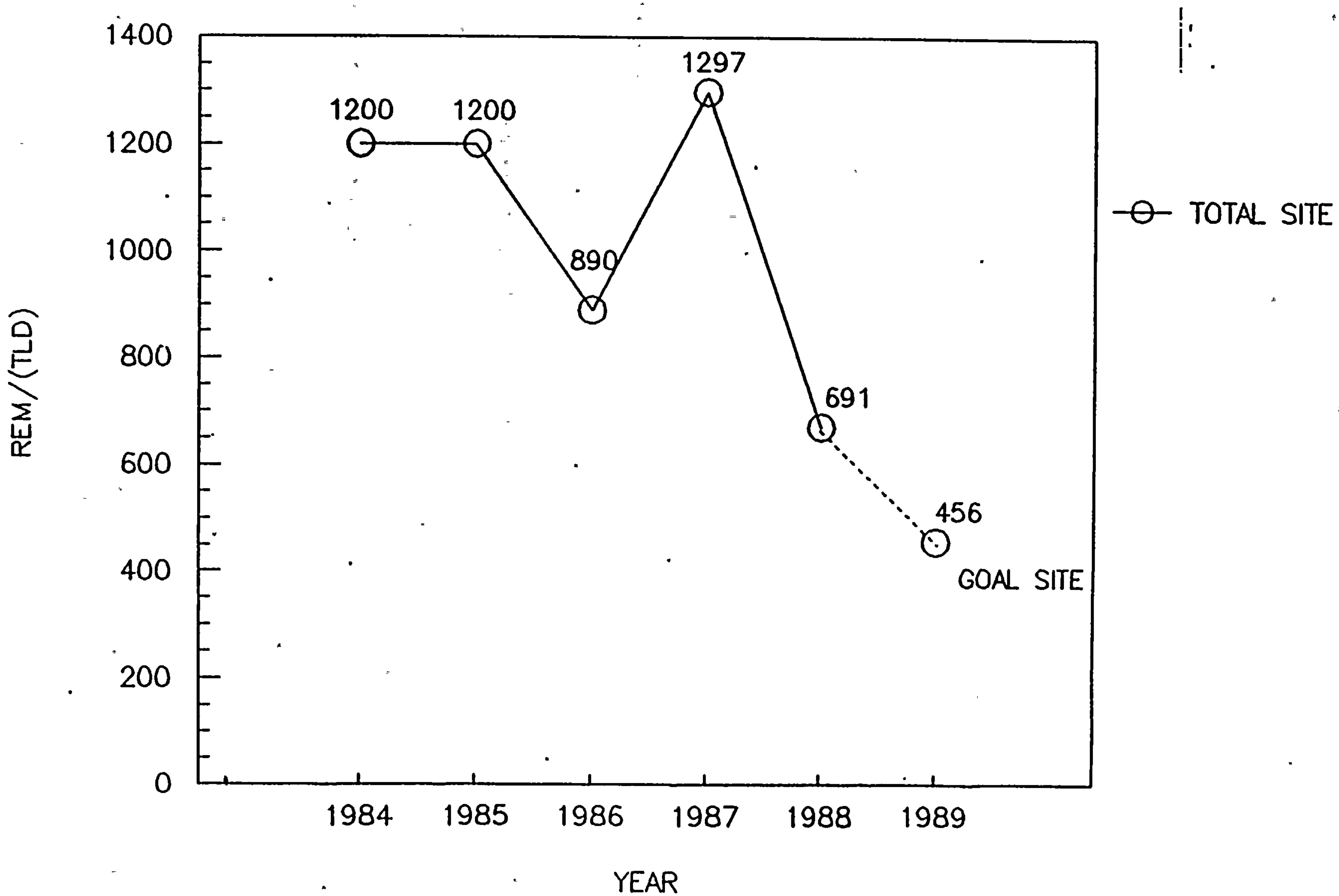
TURKEY POINT NUCLEAR
1989 LOST TIME INJURIES



DATE: 6/30/89
BY: J. Pizzolelli
SOURCE: STAFF

PGM1.TI89ALL

TURKEY POINT PLANT
MAN REM BY YEAR

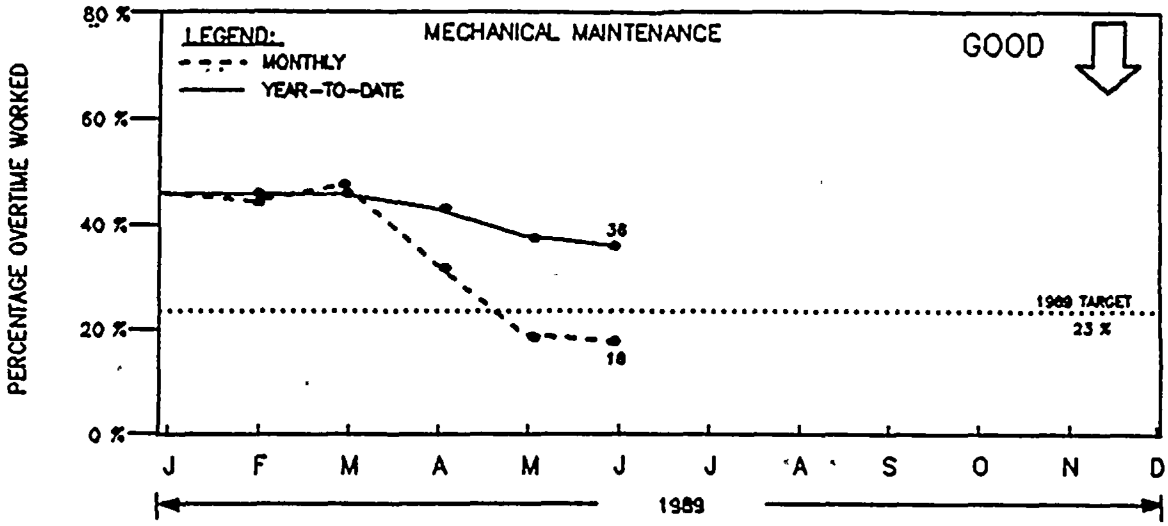


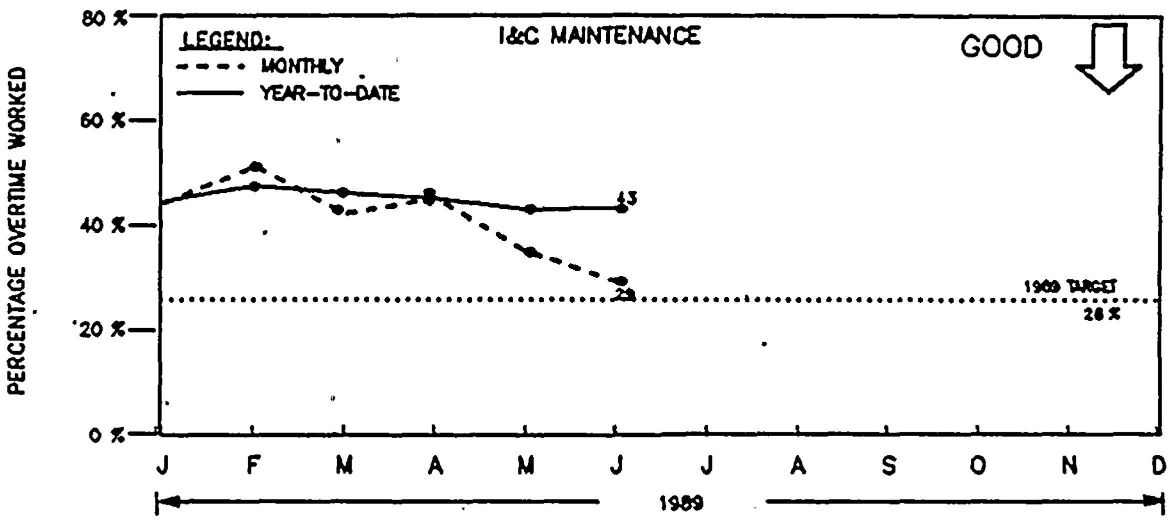
PGM:MANREM

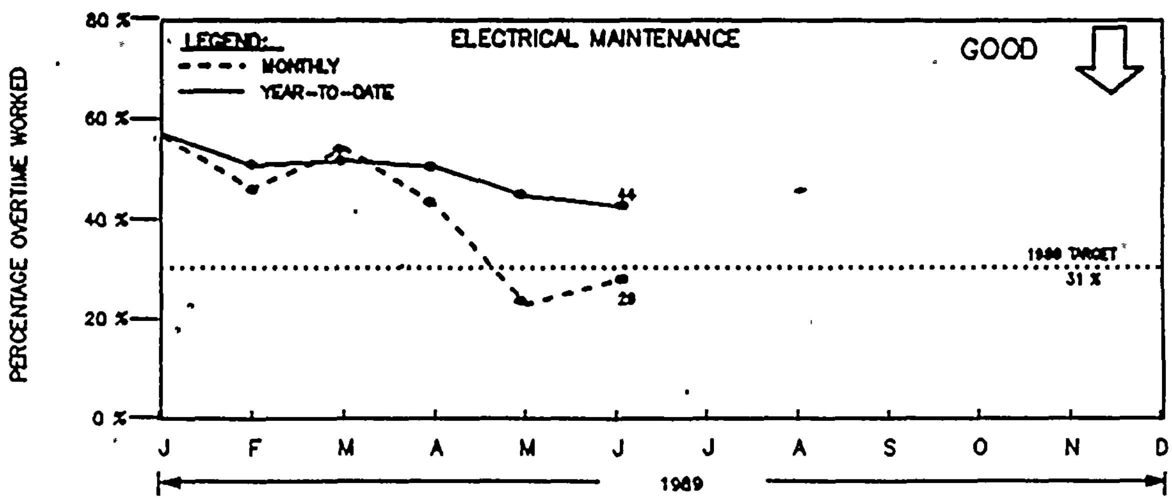
TURNOVER

- I&C TROUBLE SPOT
- STAFFING VARIANCES APPROVED
- OVERTIME MODERATED
- OPERATOR RETENTION COUNTERMEASURES

TURKEY POINT NUCLEAR UNITS 3 & 4
MONTHLY OVERTIME PERCENTAGES BY DEPARTMENT





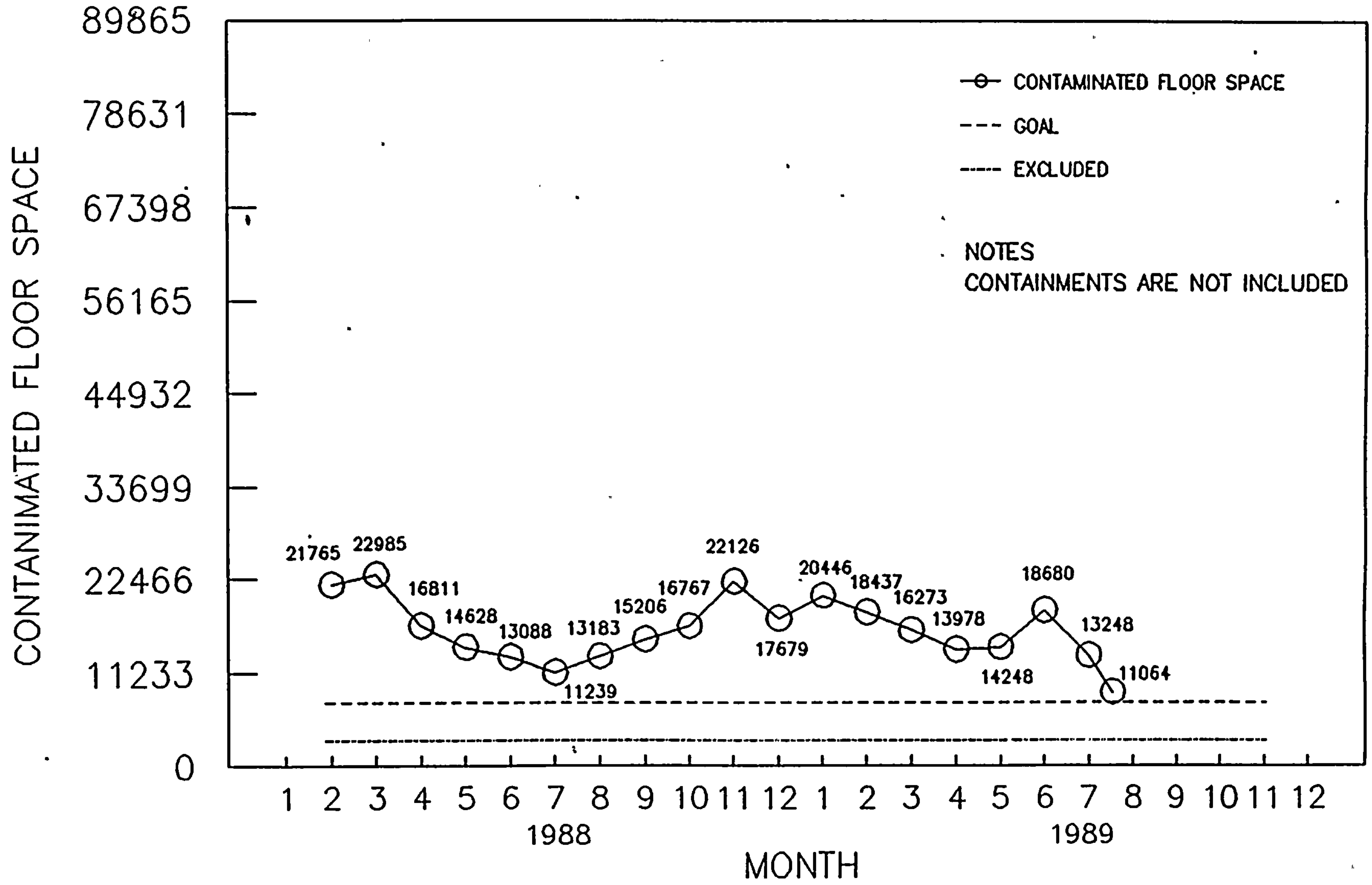


PGM-OTCOM689

MATERIAL CONDITION

- SYSTEM WALKDOWNS
- CONTAMINATED FLOOR SPACE
- EQUIPMENT IDENTIFICATION
- APPEARANCE
  - PAINT UP, FIX UP
  - ACCOUNTABILITY STANDARDS

TURKEY POINT UNITS 3 & 4
CONTAMINATED FLOOR SPACE



PGM·CONFLRSP

MATERIAL CONDITION

- SYSTEM WALKDOWNS
- CONTAMINATED FLOOR SPACE
- EQUIPMENT IDENTIFICATION
- APPEARANCE
  - PAINT UP, FIX UP
  - ACCOUNTABILITY STANDARDS

ACCOUNTABILITY

- COMMUNICATE RESPONSIBILITIES
- MEASURE PERFORMANCE
  INDIVIDUALS
  MANAGERS
- SELF EVALUATION
- EXTERNAL ASSISTANCE IN EVALUATIONS

ENGINEERING

0 MAINTENANCE SUPPORT

0 DRAWING PROGRAM UPDATE

0 PRA UPDATE

0 IMA INDICATORS

0 OTHER ACTIVITIES

MAINTENANCE SUPPORT

0 FEEDBACK/PARTICIPATION OF MAINTENANCE IN TECHNICAL DEPARTMENT/NUCLEAR ENGINEERING PRIORITIZATION OF ENGINEERING WORK REQUESTS.

0 GREEN TAG REDUCTION EFFORTS

0 SPARE PARTS

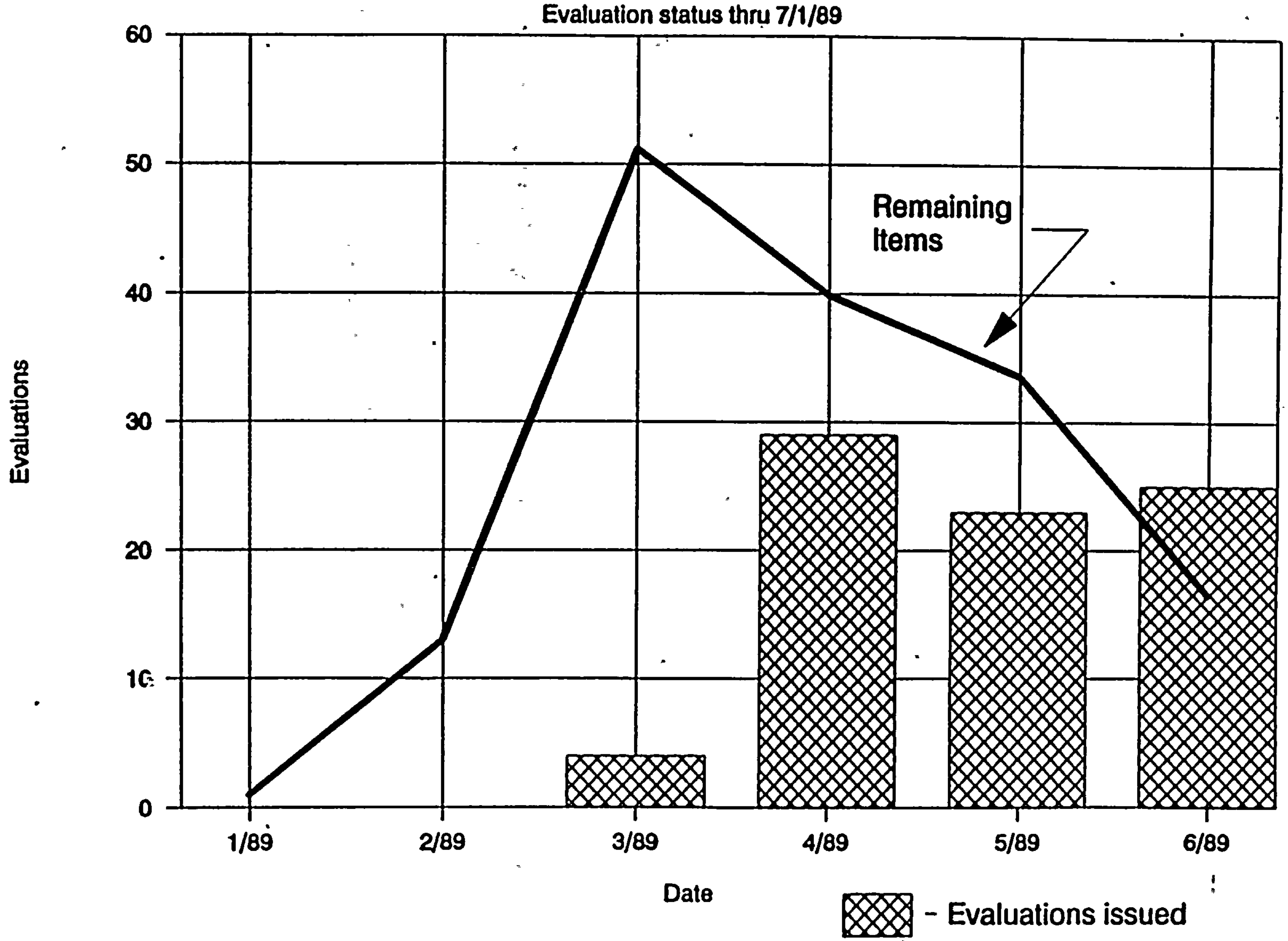
CONTROL ROOM GREEN TAGS

- Daily Interface with Maintenance
- Dedicated Design Engineering Resources
- Support Procurement Activities

SPARE PARTS

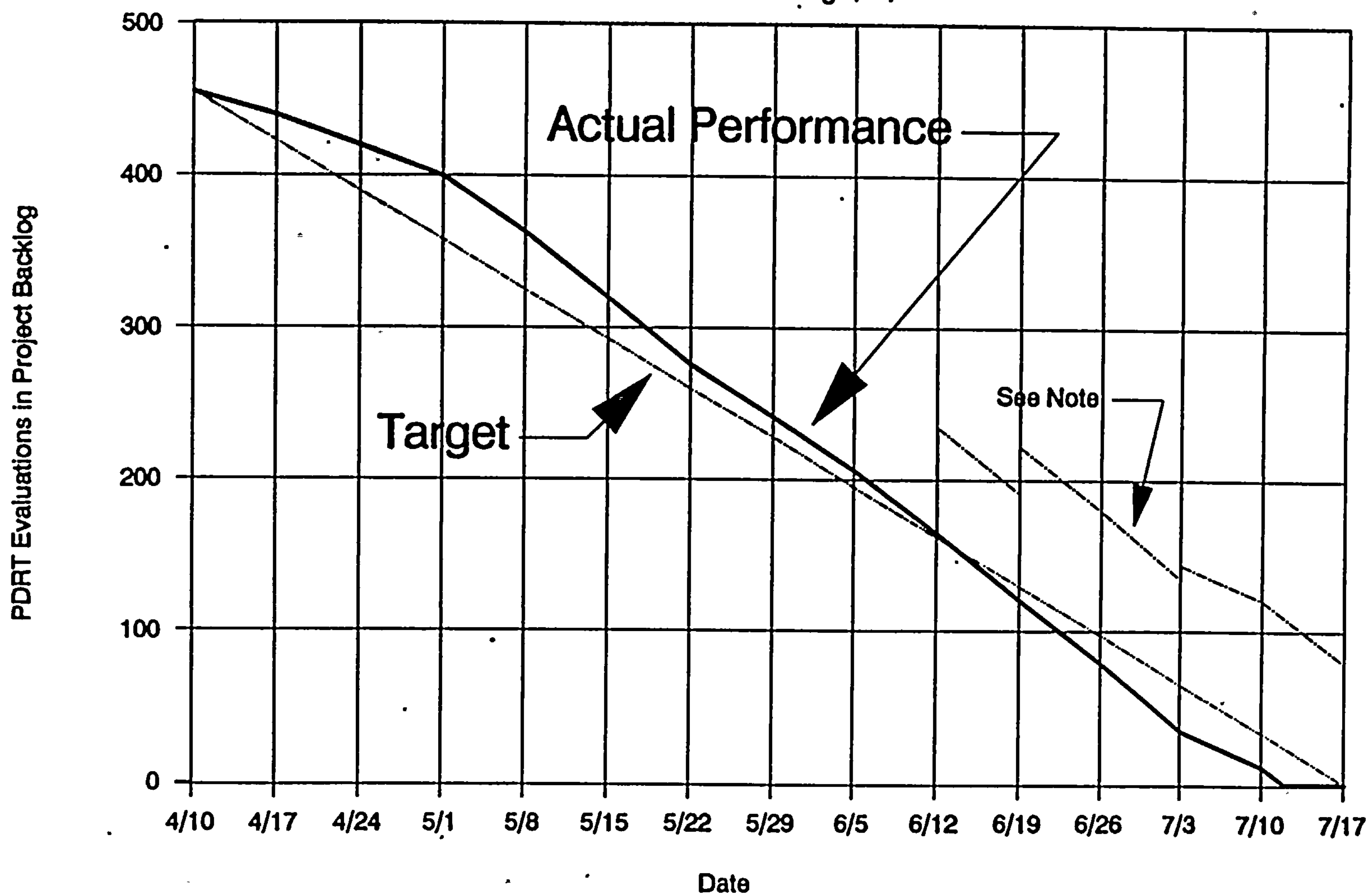
- Commercial Grade Dedication
- Backlog Reduction
- Standardization of Process
- Development of Screening Criteria
- Daily Procurement Coordination Meetings

Unit 3 Outage Committed Material



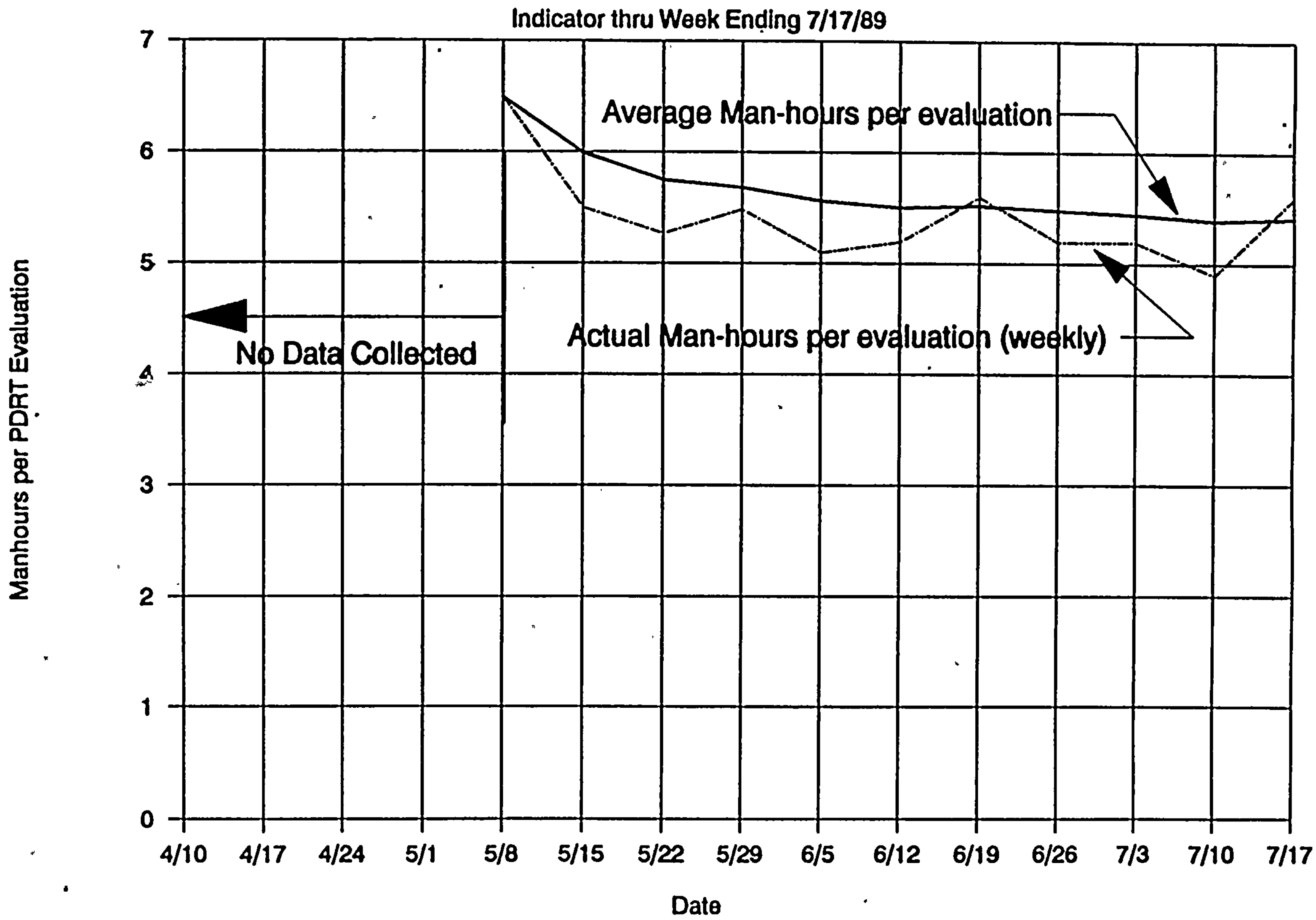
PDRT Backlog Reduction Project Status

Indicator thru Week Ending 7/17/89



Note: Actual evaluations remaining in project scope. An additional 110 items assigned to backlog project after scope defined.

PDRT Backlog Reduction Project Manhours per Evaluation



DRAWING PROGRAM UPDATE

0 COMPLETED COMMITMENTS

0 INDICATORS

- DRAWING WORKOFF CURVE
- STAFFING

<u>COMPLETED COMMITMENTS</u>

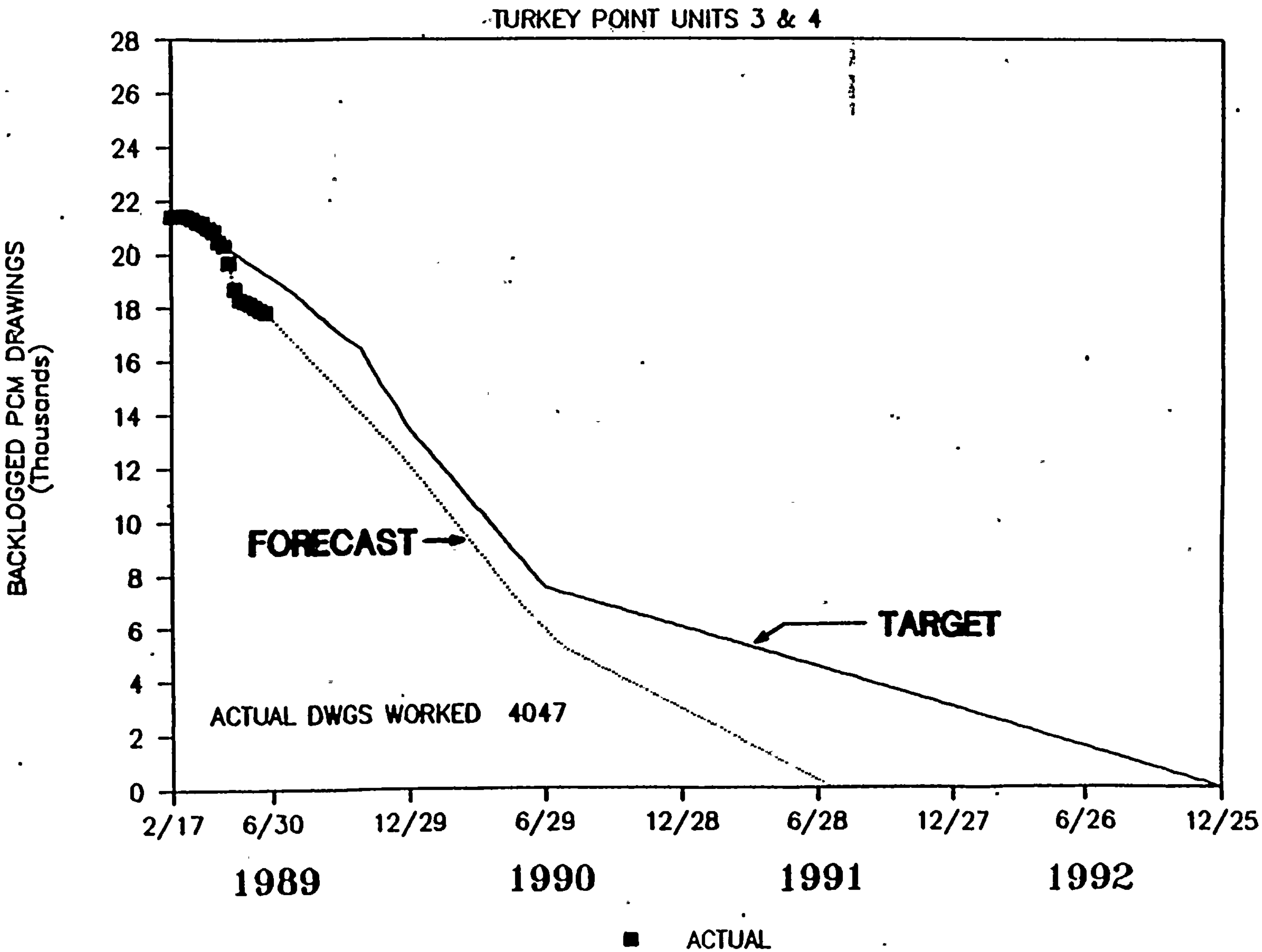
0 MANAGER NAMED

0 DEDICATED BECHTEL GROUP CONTRACTED

0 DRAWING CHANGE TRACKING SYSTEM IMPLEMENTED ON MAINFRAME COMPUTER. ON-LINE TRACKING OF <u>ALL</u> CHANGE PAPER AGAINST PLANT RECORD DRAWINGS (EP, DEEP, DCR, CRN). RESPONSIBLE DEPARTMENTS INPUT DATA TO TRACK PROGRESS FROM DESIGN THROUGH UPDATING.

0 PROCEDURE ISSUED TO IDENTIFY RESPONSIBILITIES, INTERFACES, AND INSURE ON-GOING PROCESS AFTER COMPLETION OF BACKLOG WORKOFF. IMPROVED COMMUNICATION, TEAMWORK.

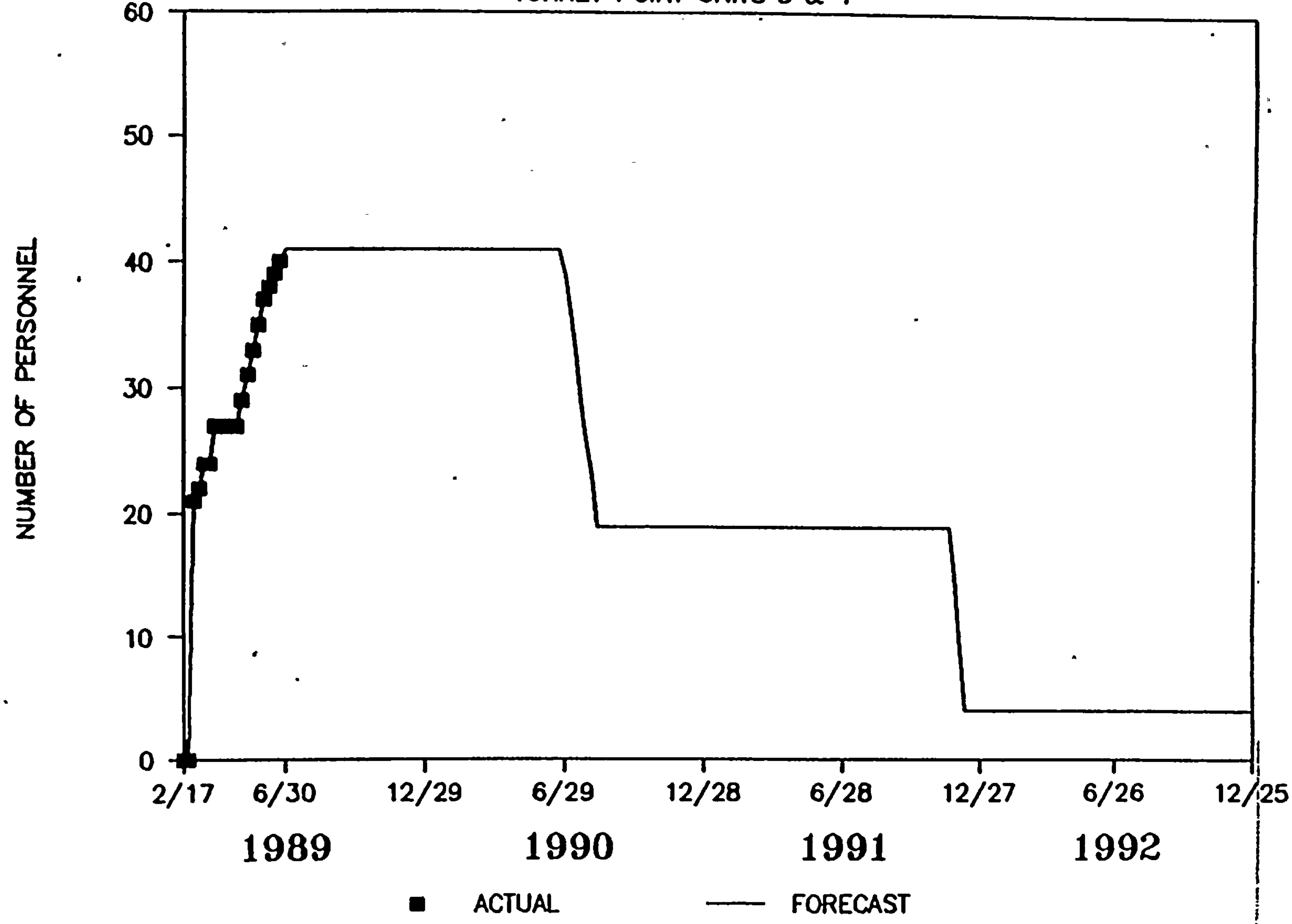
TOTAL DRAWING UPDATE WORKOFF



Report Date 06/29/89
Report Number 7

DRAWING UPDATE GROUP PROPOSED STAFFING

TURKEY POINT UNITS 3 & 4



PRA UPDATE

- 0 CONTRACT AWARDED TO SAIC ON 6/23/89
- 0 DETAILED SCHEDULE DUE FIRST WEEK IN AUGUST
- 0 MANAGEMENT DECISION TO INCLUDE FIRE PROTECTION AND HURRICANES OVER AND ABOVE PRESENT NRC REQUIREMENTS (GENERIC LETTER 88-20)
- 0 PERMANENT GROUP WITHIN ENGINEERING BEING FORMED TO:
  - USE AND MAINTAIN THE TURKEY POINT PRA
  - CONDUCT, USE AND MAINTAIN THE ST. LUCIE PRA
- 0 MEETING WITH NRC IN APPROXIMATELY TWO MONTHS TO DISCUSS DETAILS
- 0 PRA USEAGE AND BENEFITS

PRA USEAGE AND BENEFITS

0 WILL ASSIST IN FOCUSING AND PRIORITIZING MAINTENANCE ACTIVITIES

0 WILL IMPROVE OUR ABILITY TO EVALUATE AND PRIORITIZE ENGINEERING WORK REQUESTS

0 WILL SIGNIFICANTLY IMPROVE OUR ABILITY TO ADDRESS KEY REGULATORY ISSUES

0 MOST IMPORTANTLY, WILL PROVIDE A CONSISTANT LEVEL OF UNDERSTANDING THROUGHOUT NUCLEAR ENERGY OF THE SYSTEMS AND EQUIPMENT IMPORTANT TO SAFETY

IMA INDICATORS

- 0 TURKEY POINT DRAWING UPDATE WORK-OFF (SHOWN PREVIOUSLY)
- 0 EP OUTAGE INDICATOR (UNIT 3 CYCLE 12 OUTAGE PCM's)

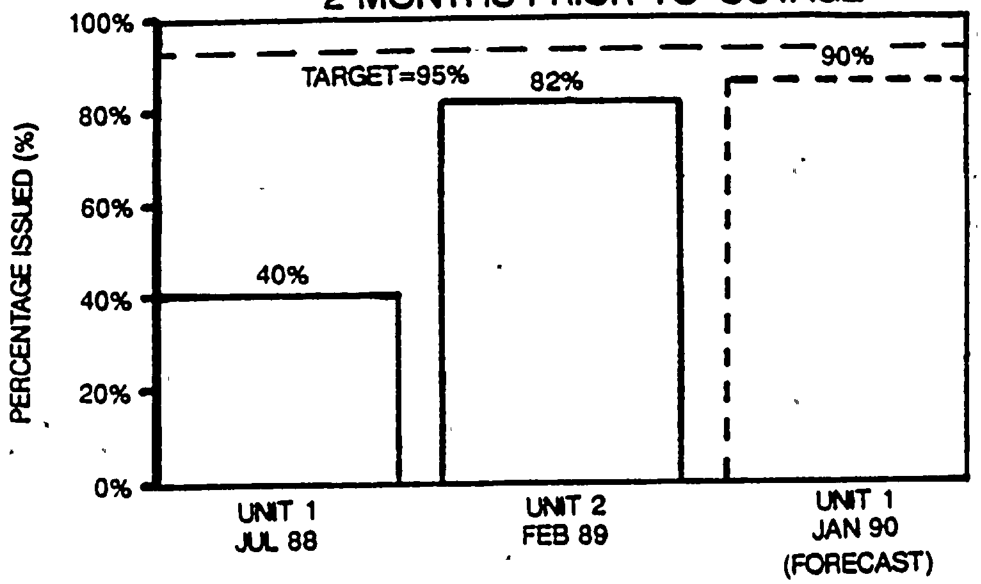
DEPARTMENT PERFORMANCE

&

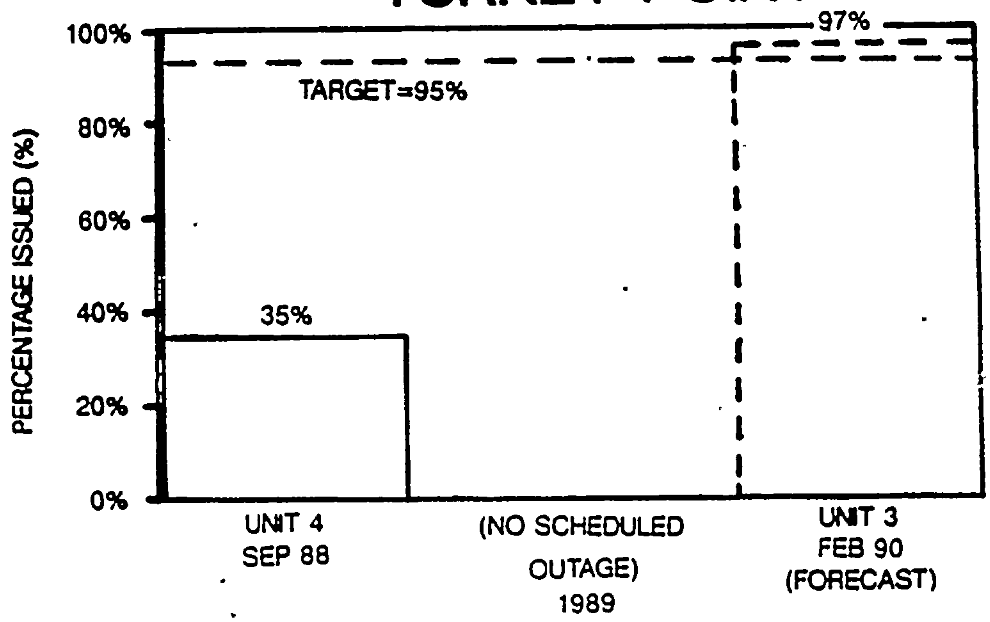
INPO EP OUTAGE INDICATOR

ST. LUCIE

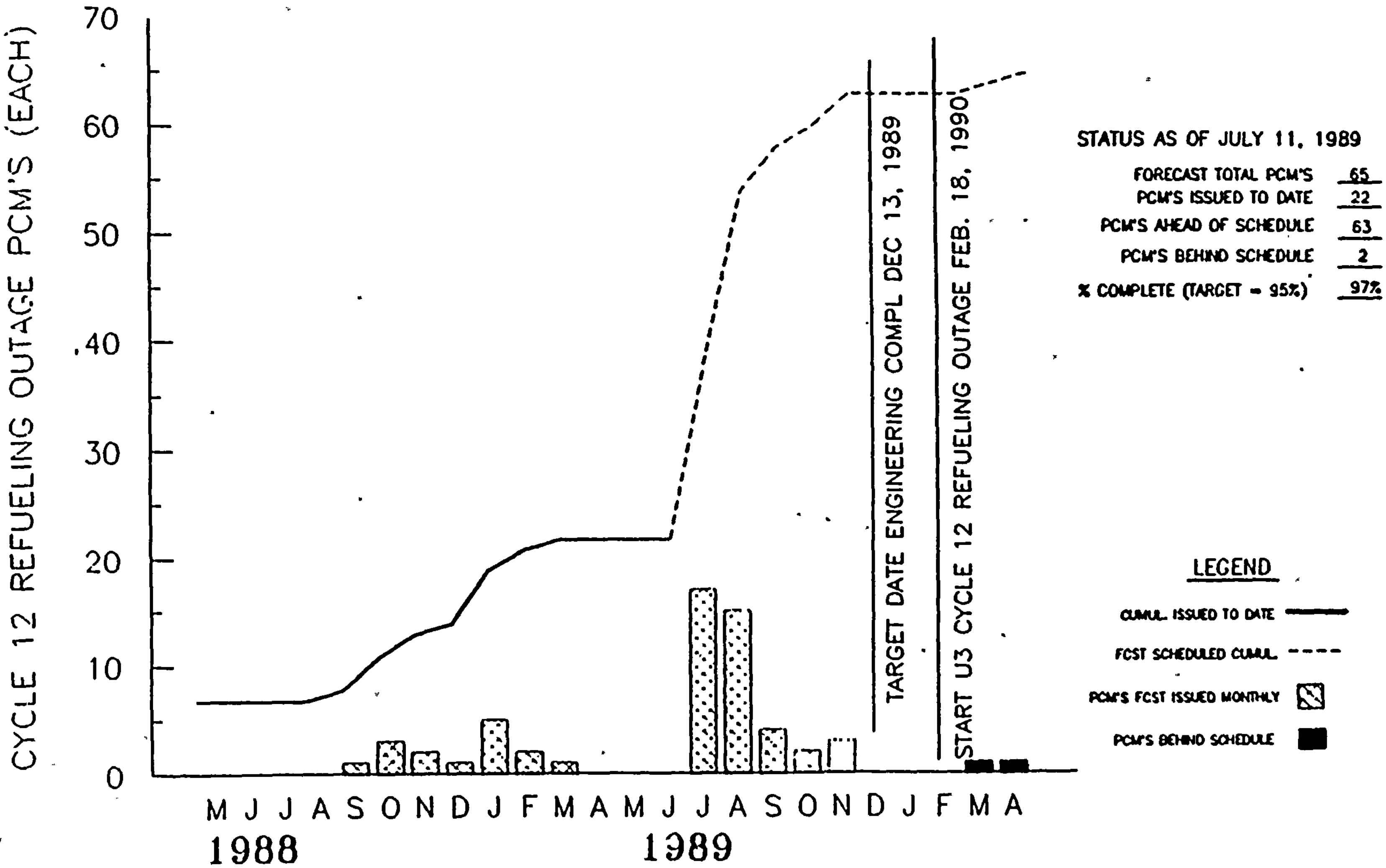
PERCENTAGE OF TOTAL REFUELING OUTAGE PACKAGES ISSUED
2 MONTHS PRIOR TO OUTAGE



TURKEY POINT



UNIT 3 CYCLE 12 OUTAGE RELATED PCM'S LEAD TIME STATUS REPORT
PTN



OTHER ACTIVITIES

- 0 NEW ACCOUNTABILITIES
- 0 STAFFING
- 0 50.59 ACTIVITIES

Turkey Point Nuclear Plant

MONTHLY MANAGEMENT MEETING

Training Overview

July 19, 1989

STAFFING:

- COMMENCED FIFTH SHIFT ROTATION (OPERATIONS) 6/24/89
  - PROVIDED NEW CREW WITH 1 WEEK OF SIMULATOR TEAM TRAINING PRIOR TO SHIFT ASSIGNMENT
  - SENIOR MANAGEMENT PARTICIPATED IN EVALUATIONS OF ALL CREWS
- SIX SHIFT ROTATION SHOULD OCCUR BY MID-DECEMBER
  - LICENSE EXAM SCHEDULED FOR NOVEMBER
    - GROUP 11 1/2; SIX RO's
    - UP-GRADE GROUP; FOUR SRO's

TOTAL: 10 INDIVIDUALS

STAFFING:

- ADDITIONAL LICENSE CLASS ADDED (GROUP 13)

- GOAL → 15-25 OPERATOR CANDIDATES (INSTANT SRO's)

- COMPLETED INTERVIEW PROCESS 6/17/89; 29 CANDIDATES ACCEPTED

- CLASS START DATE: AUGUST 1989

- TENTATIVE LICENSING DATE: OCTOBER 1990

STAFFING:

- IMPROVE NLO SUCCESS RATE IN BECOMING RCO's
  - REFORMATTED AND EXPANDED FUNDAMENTALS TRAINING
    - LATEST RESULTS (NRC FUNDAMENTALS EXAM): 100% (32/32)
    - STUDENT FEEDBACK: "OUR TRAINING PREPARED US WELL FOR BOTH THE COMPANY AND NRC FUNDAMENTALS EXAM"
    - INCREASED "P.O.S.S." APTITUDE CUTOFF SCORE FROM 9 TO 11
    - MONITORING OPERATOR CAREER PATH PROGRAM FOR ADDITIONAL IMPROVEMENT OPPORTUNITIES

REQUALIFICATION REMEDIATION:

- 100% SUCCESSFUL ON NRC ADMINISTERED RE-EXAM

- PROVIDED INCREASED SIMULATOR PRACTICE ON COMPLEX MALFUNCTIONS AND PROCEDURES USAGE . . EMPHASIZED TEAM BEHAVIOR

- TRAINED AND EVALUATED STUDENTS ON ALL NEW JPM's

- PROVIDED $\geq$120 HOURS ADDITIONAL CLASS ROOM TRAINING AND EXAMINED STUDENTS USING "OPEN REFERENCE" EXAM QUESTIONS

REQUALIFICATION REMEDIATION:

- 1989-90 REQUALIFICATION PROGRAM MODIFIED

  - INCREASED SIMULATOR TRAINING TIME

  - ADDED JPM TRAINING AND EVALUATIONS TO EACH CYCLE

  - USING OPEN REFERENCE EXAM FORMAT

  - THIRD PARTY ASSESSMENTS -TRAINING EFFECTIVENESS, WESTINGHOUSE, ENERCON, AND INPO

  - 1989-90 REQUALIFICATION PROGRAM OBJECTIVE: 90% PASS RATE ON NEXT NRC REQUALIFICATION EXAM (MARCH 1990)

  - LICENSE RETENTION COMPENSATION

REQUALIFICATION REMEDIATION:

- INTERMEDIATE PROGRAM INDICATORS
  - ACHIEVE AND MAINTAIN 95% SUCCESS RATE ON WEEKLY EXAMS
  - AT LEAST 95% OF ALL LICENSE HOLDERS PASS THEIR ANNUAL FP&L WRITTEN EXAMS WITHOUT REMEDIATION
  - CREWS MUST PERFORM CRITICAL STEPS WITHOUT ERROR DURING SIMULATOR EVALUATIONS AND BE EVALUATED SATISFACTORY OVERALL
  - INDIVIDUALS SUCCESSFULLY COMPLETE ALL ASSIGNED JPM's
  - IMPROVE/MAINTAIN INSTRUCTOR COMPETENCY

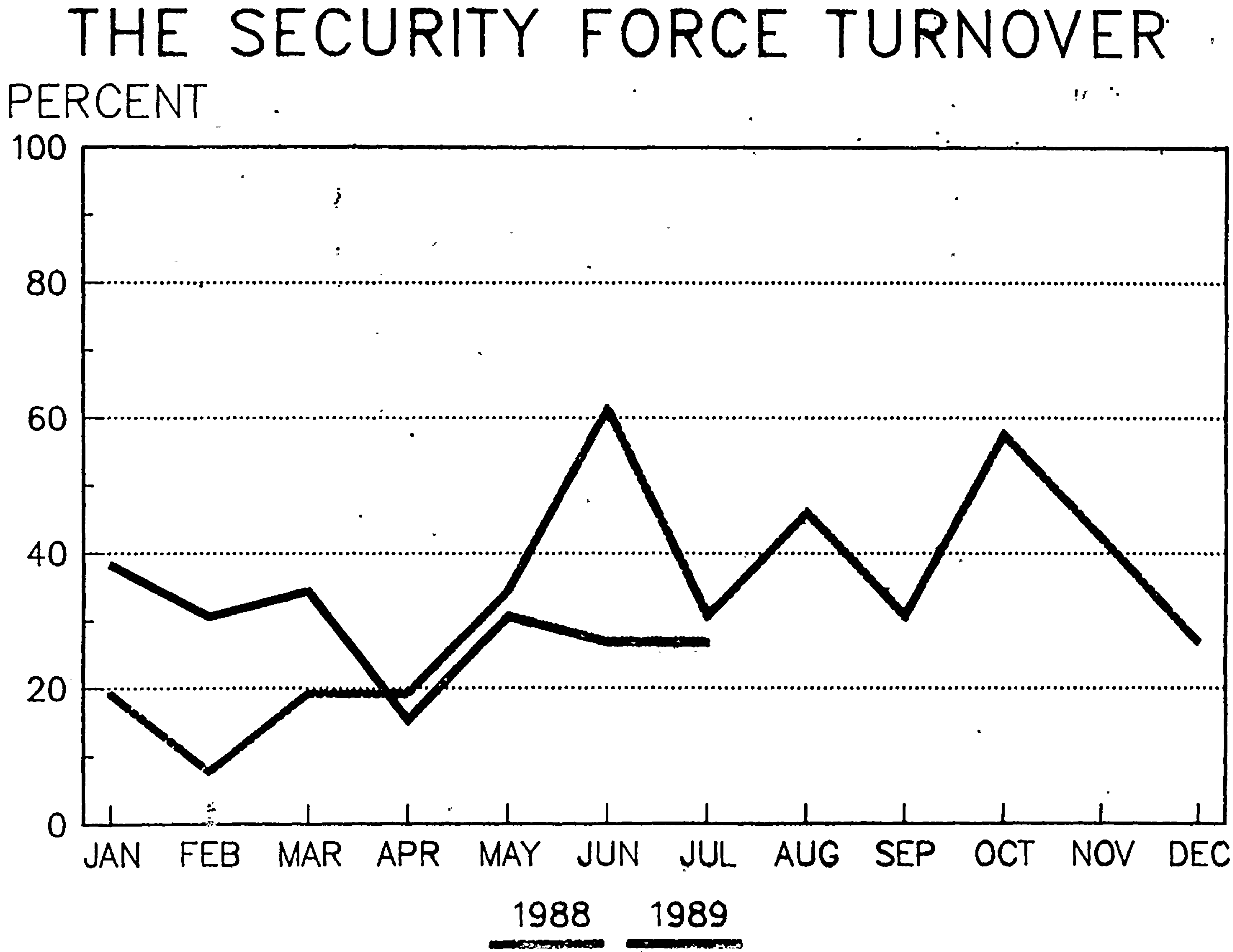
    + INSTRUCTORS GIVEN ADDITIONAL TRAINING IN EVALUATION AND CRITIQUING TECHNIQUES

    + EVALUATE AND DISPOSITION STUDENT FEEDBACK WEEKLY

    + ACTIVE INSTRUCTORS MUST DEMONSTRATE THEIR TECHNICAL AND INSTRUCTIONAL COMPETENCIES AT LEAST ANNUALLY

KEY INDICATORS

- TURNOVER
- OVERTIME
- COMPENSATORY HOURS
- LOGGABLE EVENTS

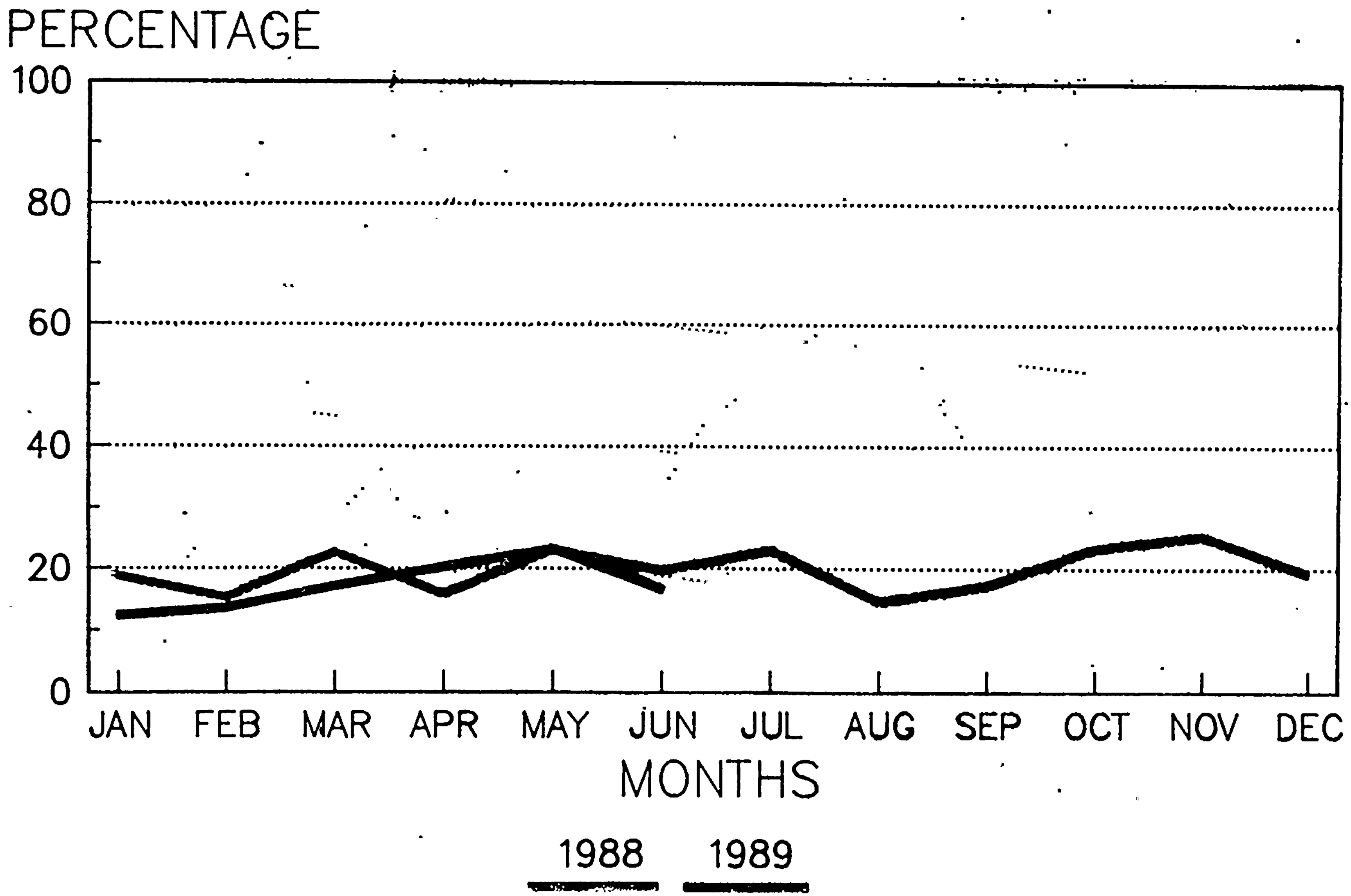

THE SECURITY FORCE TURNOVER
PERCENT
100
80
60
40
20
0
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
1988
1989

ROOT CAUSES OF TURNOVER

- SUPERVISORY INSENSITIVITY
- COMPENSATION/BENEFITS
- PROMOTION POLICY
- OVERTIME
- LACK OF STATUS

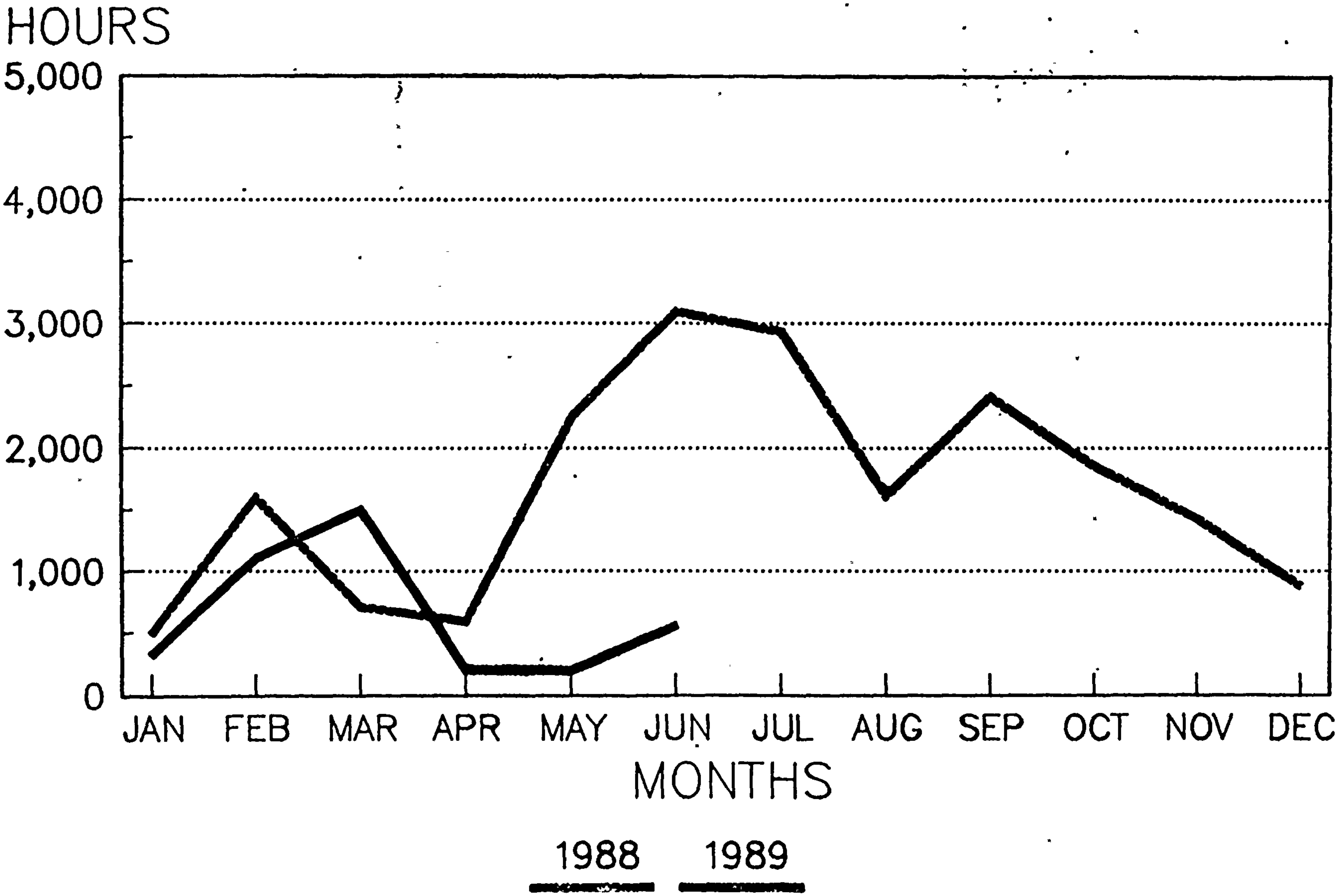
SECURITY FORCE OVERTIME

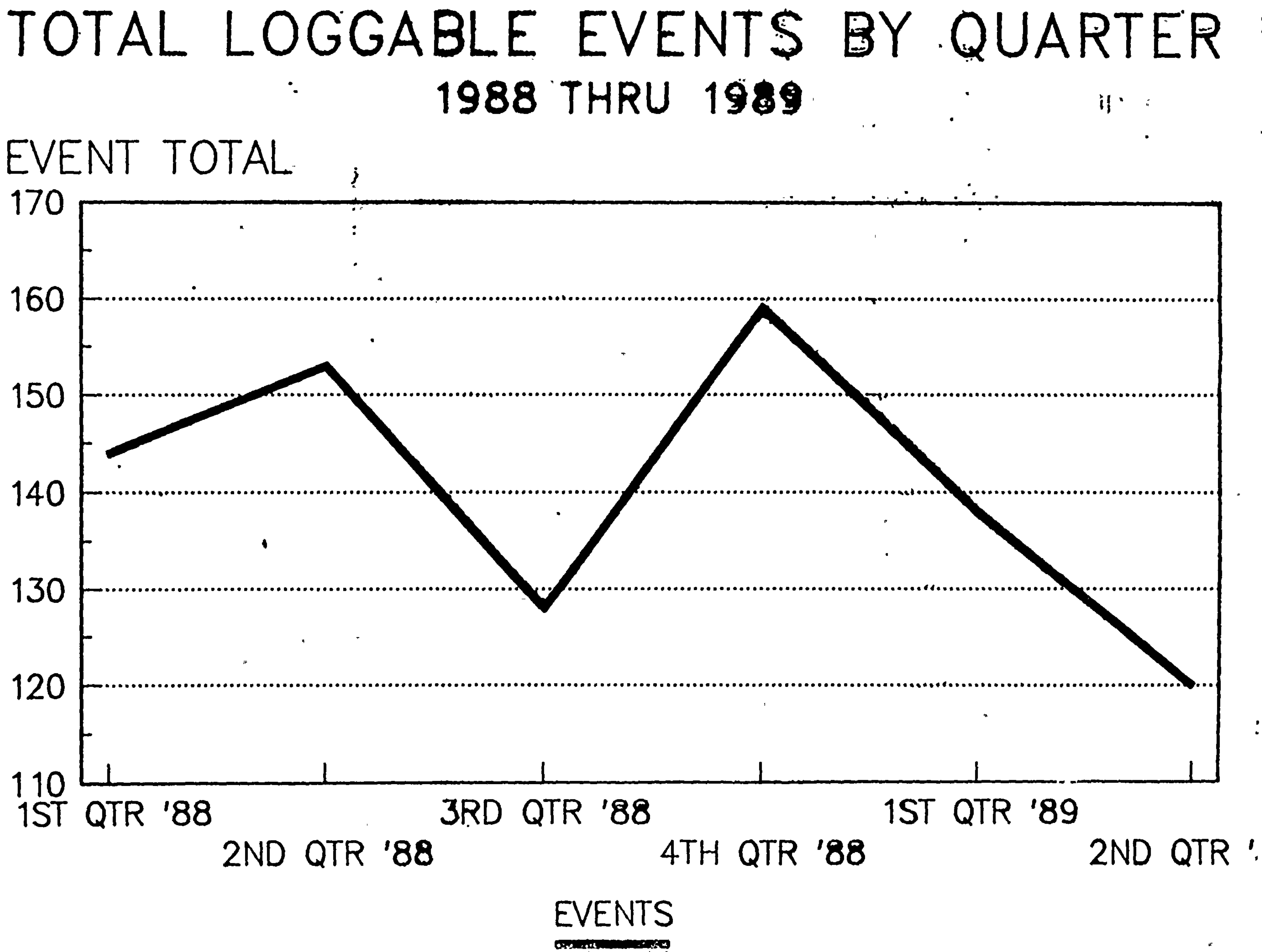
FOR 1988 AND 1989



COMPENSATORY HOURS WORKED BY THE SECURITY FORCE

DUE TO EQUIPMENT FAILURES
FOR 1988 AND 1989




TOTAL LOGGABLE EVENTS BY QUARTER
1988 THRU 1989
EVENT TOTAL
170
160
150
140
130
120
110
1ST QTR '88
2ND QTR '88
3RD QTR '88
4TH QTR '88
1ST QTR '89
2ND QTR '
EVENTS