

March 24, 1992

Docket No. 50-395

LICENSEE: SOUTH CAROLINA ELECTRIC & GAS COMPANY

FACILITY: VIRGIL C. SUMMER NUCLEAR STATION, UNIT NO. 1

SUBJECT: MEETING SUMMARY - IST AND LICENSING ACTION STATUS

On February 27, 1992, members of the staff met with representatives of South Carolina Electric & Gas Company (SCE&G or the licensee) in Rockville, Maryland, to discuss the licensee's proposed response to the staff's Safety Evaluation of the licensee's Inservice Testing (IST) Program. The status of licensing actions was also discussed.

A meeting summary is provided as Enclosure 1, a list of those in attendance is provided as Enclosure 2, and a copy of the licensee's handout used in the meeting is provided as Enclosure 3.

/S/

George F. Wunder, Project Manager
Project Directorate II-1
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

cc: See next page

Enclosures:

1. Meeting Summary
2. Attendance List
3. Meeting Handout

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MEETING SUMMARY

VIRGIL C. SUMMER NUCLEAR STATION, UNIT NO. 1

On February 27, 1992, members of the staff met with representatives of South Carolina Electric & Gas Company (SCE&G or the licensee) to discuss the licensee's proposed response to the staff's Safety Evaluation of the licensee's Inservice Testing (IST) Program.

In general, the staff agreed with the licensee's proposed responses. There was some disagreement as to the interpretation of position 9 of Generic Letter 89-04 as it related to the testing of a charging pump during power operations; however, the staff agreed to review the licensee's proposed response.

There was also a brief discussion of the status of licensing issues.

MEETING WITH SCE&G

February 27, 1992

Name

Organization

E. Adensam
G. Wunder
K. Dempsey
A. Koon
J. Loignin

NRR/PDII-1
NRR/PDII-1
NRR/EMEB
SCE&G
SCE&G

AGENDA FOR NRC MEETING ABOUT IST PROGRAM

- I. Background
 - A. Submittals were made in August 88 and July 89.
 - B. Program revisions were put on hold pending issuance of SER after NRC comment that revision submittals were holding up the review.
 - C. VCS was included on Table 1 of GL 89-04.
- II. SER Anomaly Responses - See Attached Handout!
- III. Other IST Program Issues
 - A. Code update for next 10 year interval
 - 1) ASME Section XI, 1989 with no addenda
 - 2) Independent review of ISI and IST program to be conducted this year to identify outstanding items to be completed for the 1st interval and to identify program changes required by the code update for the 2nd interval.
 - B. Plant Modifications required to comply with GL 89-04 but not addressed in the SER

IST SER APPENDIX B ANOMALY NUMBER 1 RESPONSE

VCS cannot meet the accuracy requirement of Table IWP-4110-1 for the calculated flow rate of the DG fuel oil transfer pumps with the current plant configuration. A modification which will enable the calculated flow rate to meet the accuracy requirement will be implemented before cycle 8.

Flow rate reference values and acceptance criteria will be established in accordance with Section XI, Table IWP-3100-2.

IST SER APPENDIX 5 ANOMALY NUMBER 2 RESPONSE

Pump curves and vibration data are or will be developed, as outlined in the SER.

IST SER APPENDIX B ANOMALY NUMBER 3 RESPONSE

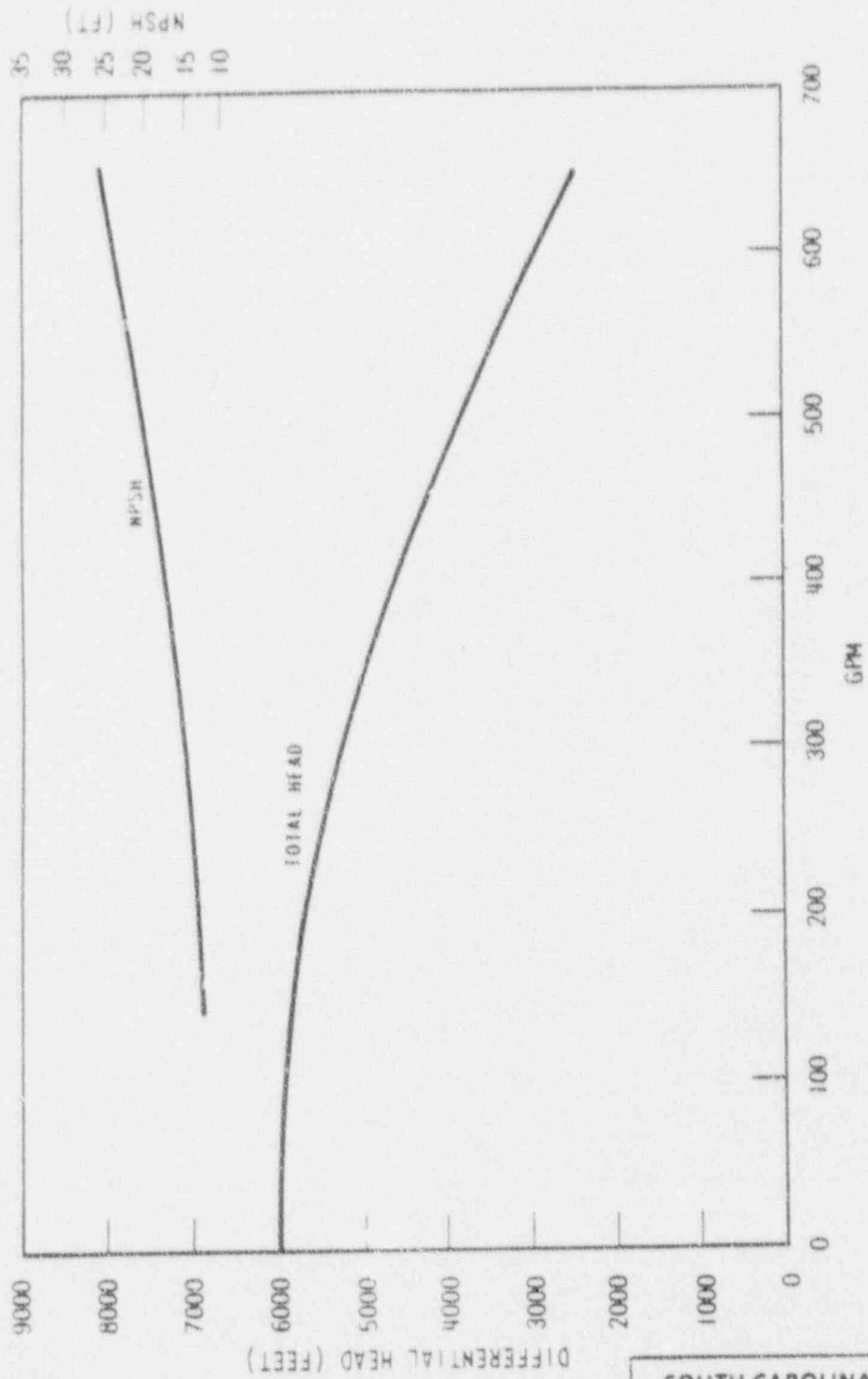
VCS withdraws Relief Request Pump E.2. The modification to add flow elements IFE-4586 and IFE-4587 has made it unnecessary.

1ST SER APPENDIX B ANOMALY NUMBER 4 RESPONSE

VCS is presently in compliance with GL 89-04, Position 9 which specifically addresses testing pumps on mini-flow.

Clarification of Arguments for Anomaly No. 4

1. Testing via the normal charging path requires manual operation of charging flow and poses some risk of causing a plant trip as a result of either a self induced transient or inadequate operator response to a plant transient.
2. Testing via normal charging requires closing the charging pump mini-flow valve which poses some risk of damaging the pump if there were an SI actuation resulting from a transient which increases RCS pressure.
3. As indicted by the attached curves from the FSAR and the pump manufacturer, there is very little change in DP in the 100-200 gpm range which would indicate that a test in this flow range may not detect minor pump degradation.
4. Testing in the above fashion requires installing smart transmitters in posted High Radiation areas.
5. Testing via normal charging requires testing the "on service" pump - a departure from present plant philosophy.



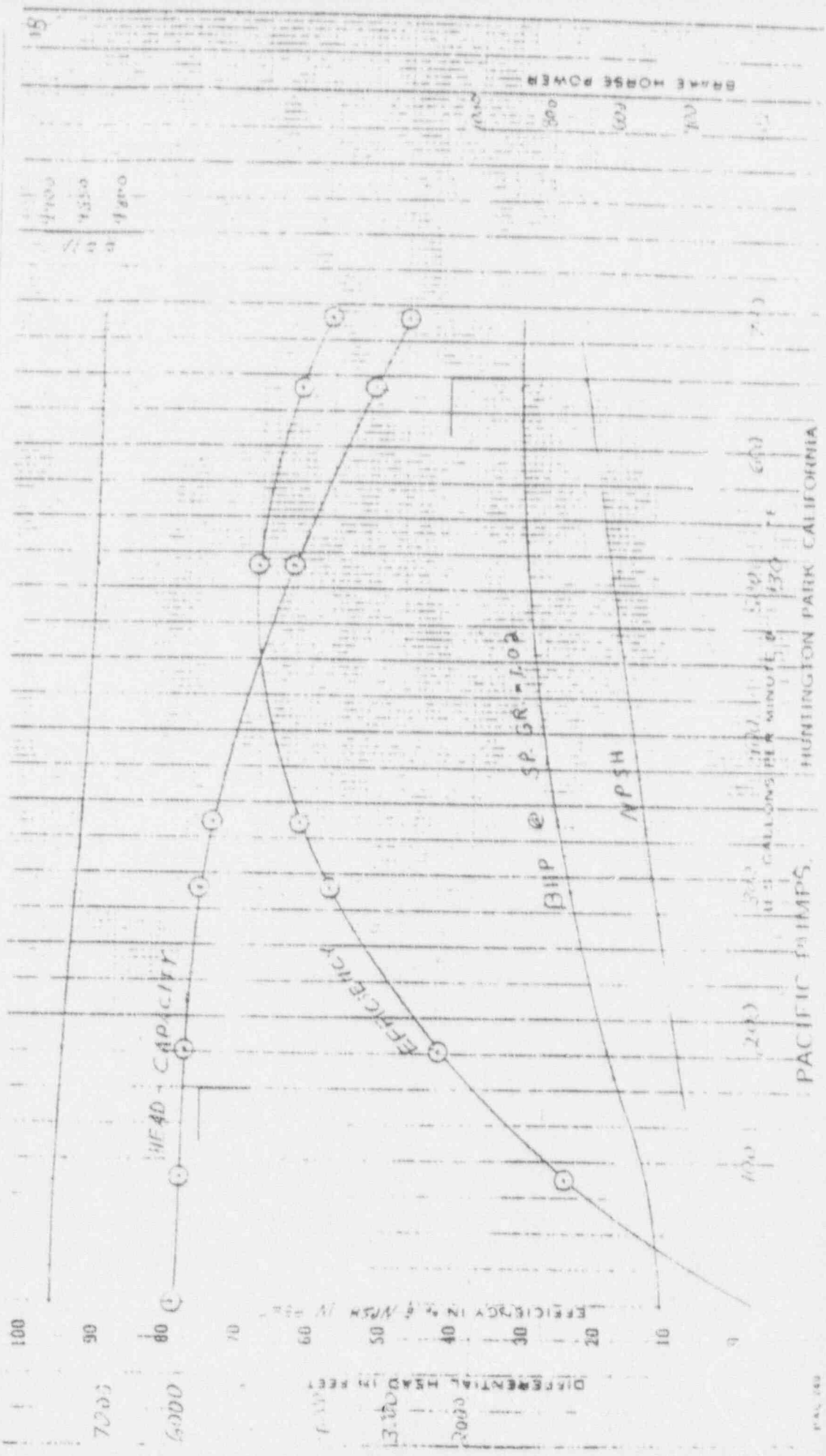
SOUTH CAROLINA ELECTRIC & GAS CO.
 VIRGIL C. SUMMER NUCLEAR STATION

Performance Curve for Centrifugal
 Charging Pump

Figure 6.3-4

TEST PERFORMANCE CURVE NO 30877 A
 SIZE 2 1/2 RI TYPE 11 STAGES 11
 R P M FIELD DATE 1-13-75
 PUMP NUMBER 11118
 PERFORMANCE ALSO APPLICABLE TO PUMP NUMBER

CONTRACTOR WESTWASHOCCO ALES
 CUSTOMER CGE OI PO 5 1/2 GAL - CAL - 137501
 ITEM NO M 7278 AT 1112
 IMPELLER PATTERN 8 5/16
 MAXIMUM DIAMETER 8 5/16
 RATED DIAMETER 8 3/16
 MINIMUM DIAMETER 7 5/16



TEST PERFORMANCE CURVE NO 36897 B

SIZE 3 1/2 RL TYPE IJ STAGES II

R P M FIELD DATE 1-15-75

PUMP NUMBER 49179

PERFORMANCE ALSO APPLIES TO PUMP NUMBER _____

CONTRACTOR _____

CUSTOMER WESTINGHOUSE NES

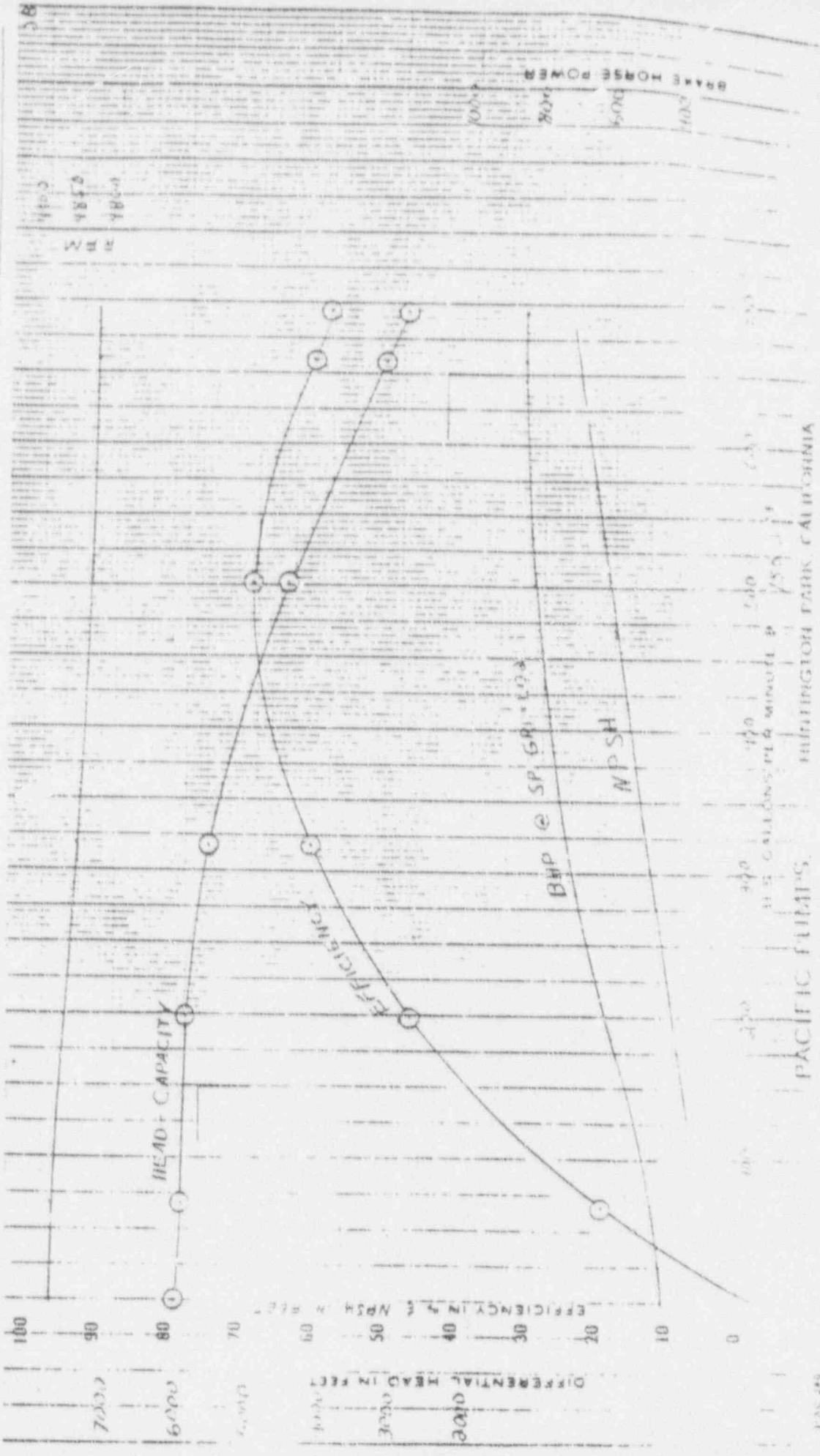
ITEM NO CGE 02 PD 5 1/2 - CAL - 184501

IMPELLER PATTERN M-7278 M-7475

MAXIMUM DIAMETER 8 5/16

RATED DIAMETER 8 5/16

MINIMUM DIAMETER 7 5/16

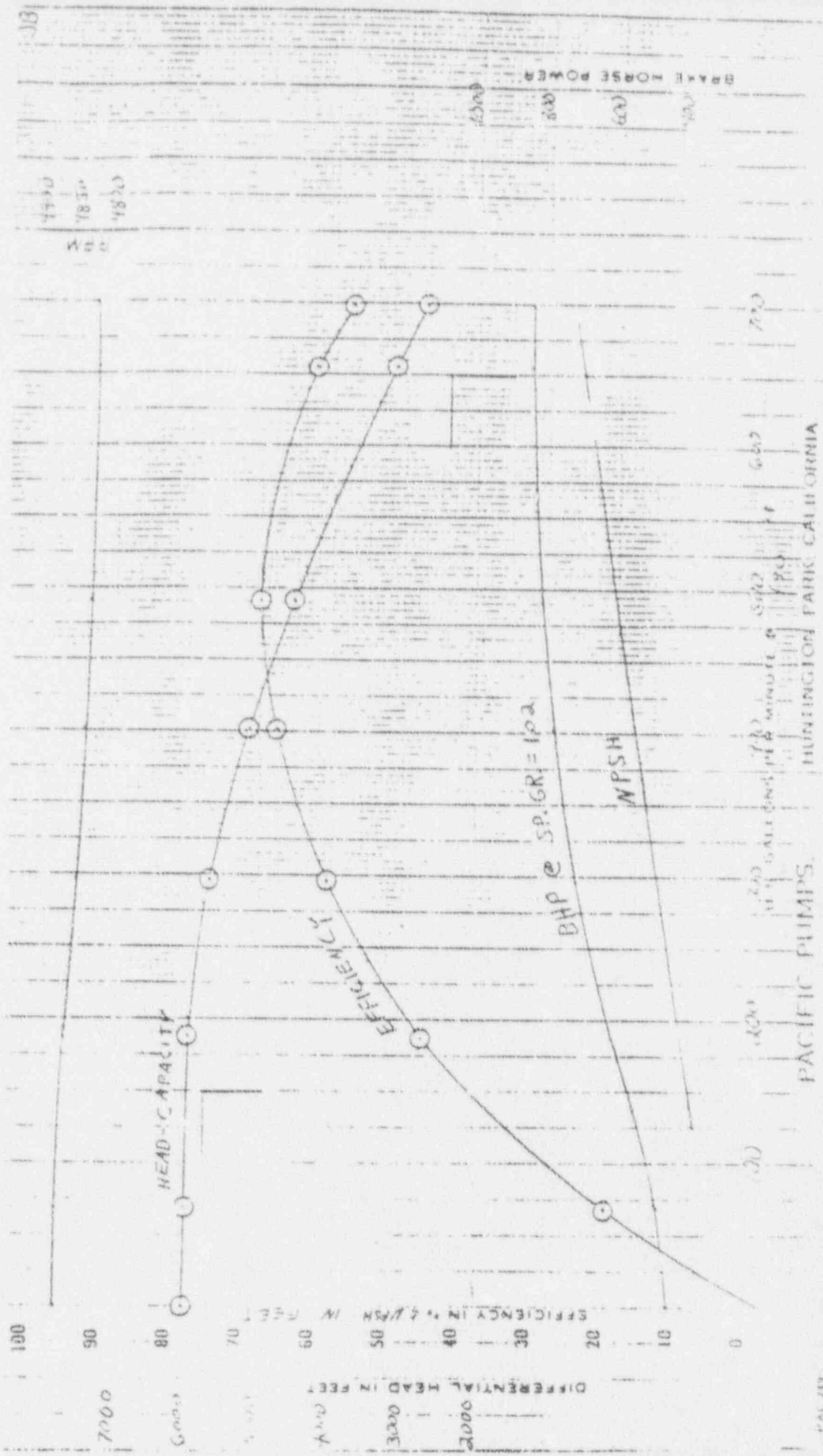


PACIFIC PUMPS
HUNTINGTON PARK CALIFORNIA

TEST PERFORMANCE CURVE NO 36897C
 SIZE 2 1/2" RI TYPE F3 STAGES II
 R P M FIELD DATE 1-24-75
 PUMP NUMBER 49180

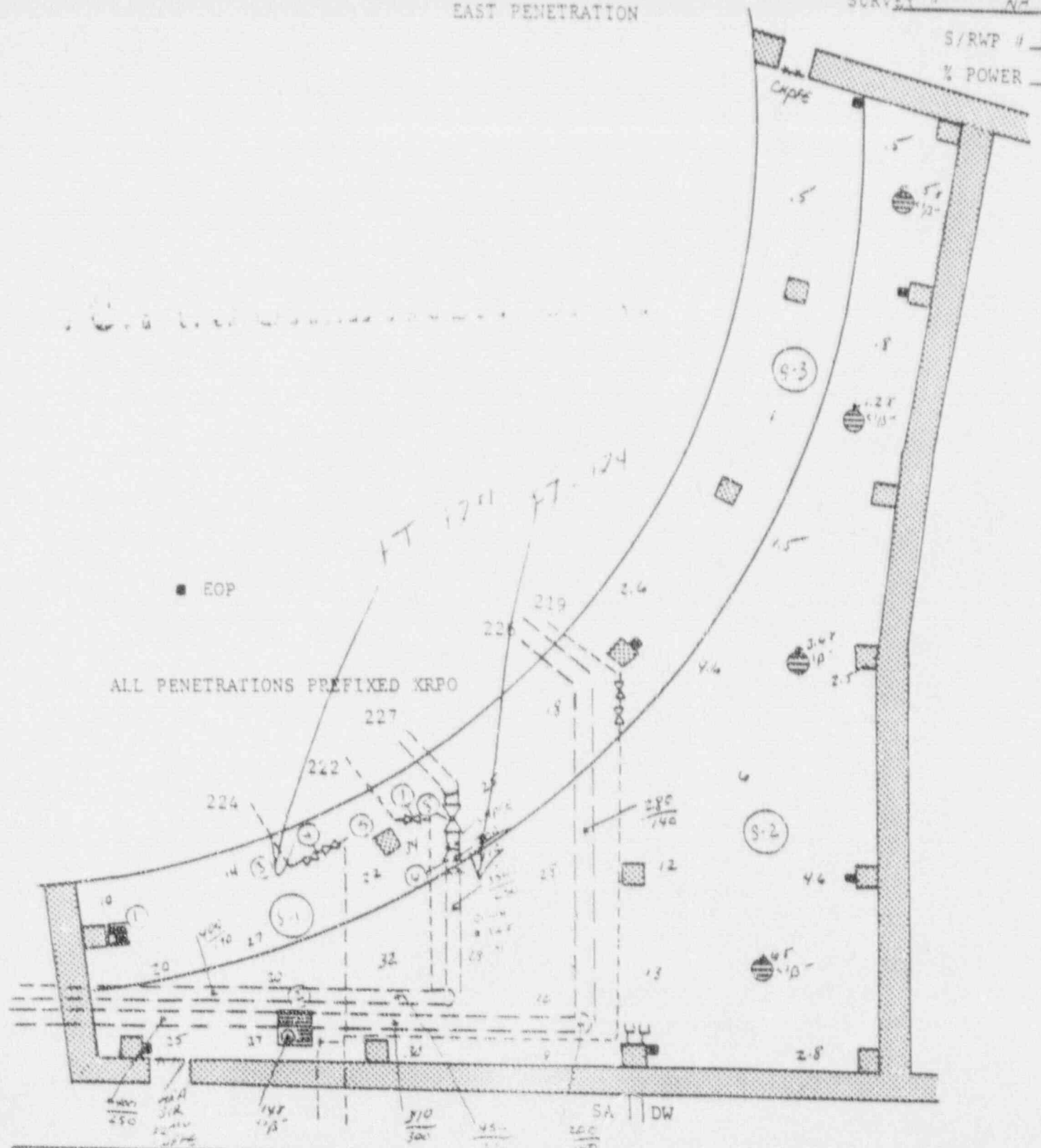
PERFORMANCE ALSO APPLIES TO PUMP NUMBER _____

CONTRACTOR _____
 CUSTOMER WESTINGHOUSE A/E3
 ITEM NO CGE 03 P D 516-CAL-181501
 IMPELLER PATTERN M-7278 M-7975
 MAXIMUM DIAMETER 8 5/16 8 5/16
 RATED DIAMETER 3 5/16 8 5/16
 MINIMUM DIAMETER 7 5/16 7 5/16



EAST PENETRATION

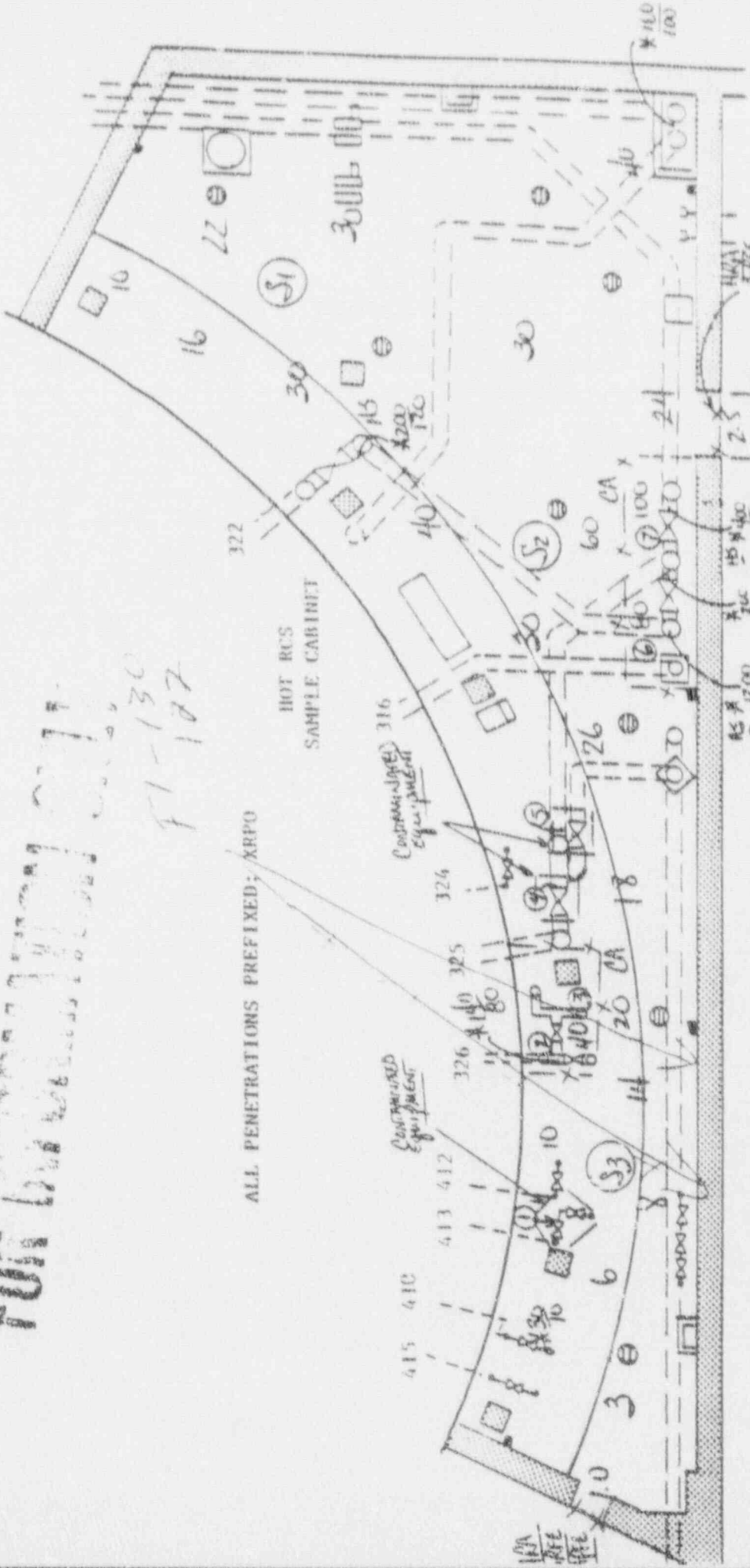
SURVEY # NA
 S/RWP # 92-01
 % POWER 100



CONTAMINATION IN DPM/100 CM ² :				COUNT	SER.# 3433	INST. TYPE: TCC	SER.# 1012
1	220	9	17	COUNT	SER.# 2	INST. TYPE: R-2	SER.# 1013
2		10	18	COMMENT			
3		11	19				
4		12	20				
5		13	21				
6		14	22				
7		15	23				
8		16	24				

* DENOTES CONTACT READINGS, ALL OTHERS ARE AIRBORNE UNLESS OTHERWISE NOTED.

FOR [unclear]
 71-130
 71-107



ALL PENETRATIONS PREFIXED; XRP0

HOT RCS SAMPLE CABINET

CONFIRMED Equipment

CONFIRMED Equipment

CONTAMINATION IN DPM/100 CM²:

1K	8	15	22	29
2K	9	16	21	30
4K	10	17	24	31
21K	11	18	25	32
11K	12	19	26	33
8K	13	20	27	34
40K	14	21	28	35

COURT: RM-14 SER. F. 3700

COURT: SER. F. -

COURT: SER. F. -

BKGS = 60-80 cpm

Sweeps = BKGD

M-246

DES. DATE: RO-2 SER. 2614

DES. DATE: SER. 2614

DES. DATE: SER. 2614

DES. DATE: SER. 2614

DES. DATE: SER. 2614

DES. DATE: SER. 2614

DES. DATE: SER. 2614

* DPM/100 CONTACT READER

IST SER APPENDIX B ANOMALIES RESPONSE

5. ANOMALY NO. 5

REPLY:

GTP 302 ~~has been~~ ^{is to be} changed to eliminate the 24 hour delay and a statement will be added which requires an unacceptable valve to be declared inoperable upon recognition of unacceptable performance.

IST SER APPENDIX B ANOMALY NUMBER 5 RESPONSE

GTP 302 will be changed to eliminate the 24 hour delay and a statement will be added which requires an unacceptable valve to be declared inoperable upon recognition of unacceptable performance.

IST SER APPENDIX B ANOMALY NUMBER 6 RESPONSE

GTP 302 Attachment VII, including Table C, will be revised to reflect GL 89-04, Position 5. A review and update of all affected valve acceptance criteria will be completed as part of the update for the second 10 year interval.

IST SER APPENDIX B ANOMALY NUMBER 7 RESPONSE

VCS withdraws Relief Request Valve E.2. Cold shutdown justifications will be developed in accordance with Section XI, Paragraphs IWV-3412 and IWV-3522.

IST SER APPENDIX B ANOMALY NUMBER 8 RESPONSE

- A. A relief request is not required for XVC-7541 and XVC-7544. These valves are passive and require only leak tests at 24 month intervals.
- B. Valve XVC8046 will be re-classified as a passive valve which eliminates the need for a cold shutdown relief request. (Note: This valve is the inside containment isolation for reactor make up water to the PRT. It is used less than 1% of the time and it does not change position to perform its function.)
- C. XVC8861 and XVC8947 have been classified as active. These valves receive a closure test each quarter and a local leak rate test each refueling.

IST SER APPENDIX B ANOMALY NUMBER 9 RESPONSE

Relief request is withdrawn. VCS is in compliance with GL 89-04, Position 10.

IST SER APPENDIX B ANOMALY NUMBER 10 RESPONSE

The cold shutdown justifications will be revised to remove the 1/2 pipe reference. Compliance will then be achieved by referencing cold shutdown intervals.

IST SER APPENDIX B ANOMALY NUMBER 11 RESPONSE

ANOMALY NO. 11 states that XVC-8377 is not in the program and needs to be.
This was corrected in Revision 4 of the ISI Valve List.

1ST SER APPENDIX B ANOMALY NUMBER 12 RESPONSE

This was corrected in Revision 4 of the ISI Valve List by deleting XVC-8440 from the program.

IST SER APPENDIX B ANOMALY NUMBER 13 RESPONSE

The typo in the ISI valve list was corrected in Revision 4.

1ST SER APPENDIX B ANOMALY NUMBER 14 RESPONSE

VCS is in compliance with GL 89-04, Position 2. The program will be revised to more clearly state the required corrective actions if a valve fails the inspection as part of the second 10 year interval update.

1ST SER APPENDIX B ANOMALY NUMBER 15 RESPONSE

VCS is in compliance with GL 89-04, Position 1.

IST SER APPENDIX B ANOMALY NUMBER 16 RESPONSE

VCS has not met GL 89-04, Position 1 in full-stroke exercising of these check valves due to the parallel flow paths. The test procedure will be revised, with a preference toward non-intrusive testing methods, by Refuel 7 or the valves will be disassembled in accordance with GL 89-04, Position 2.

IST SER APPENDIX B ANOMALY NUMBER 17 RESPONSE

These valves are constructed as relief valves, not simple check valves. The testing requirements of IWV-3410 are correctly specified in the program.

ISI SER APPENDIX B ANOMALY NUMBER 18 RESPONSE

- a. XVC06489B was removed by MRF 34096.
- b. Corrected CS-AC-2 Category C to Category A/C.
- c. Relief Request A-5 corrected from Category A/C to Category C.
- d. Valve Location corrected in Revision 4 of the ISI Valve List.
- e. Valve Location corrected in Revision 4 of the ISI Valve List.
- f. Relief Request B2 corrected from Category B to Category C.
- g. CV-CVCS-10 corrected from Category B to Category C.
- h.
 - 1. Corrected ISI Valve List for Valve 6799 from Category C to Category A/C.
 - 2. The check valve has been classified as passive because its normal and accident positions are closed. The upstream motor operated valve has been classified active because it is a normally open valve whose accident position is closed.
- i. These valves are non-nuclear safety class (reference DBD 2.2.2.2.3 and 2.2.2.2.4). Code class and category are correct in the ISI Valve List. They are however tested in accordance with the requirements for Category B valves.
- j. Corrected CS-FW-4 from Category B to Category C.
- k. Corrected per Revision 4 of the ISI Valve List.
- l. Corrected CS-IA-1 from A to Category A and A/C.
- m. Corrected CS-MS-2 from B to Category C.
- n. Corrected per Revision 4 of GTP 302.
- o. To be corrected per Revision 5, Change A of GTP 302.