Calculation No. SC-SE-0002-2
Average Power Range Monitor (APRM)Channels A-F and
Rod Block Monitors (RBM) Channels A and B

(NC.DE-AP.ZZ-0002(Q), Rev. 12, Form 1)

CALCULATION COVER SHEET

CALCULATION NUMBER: SC-SE-0002-2 **REVISION:** 9IR1

TITLE: AVERAGE POWER RANGE MONITOR (APRM) CHANNELS A – F & ROD BLOCK MONITORS (RBM) CHANNELS A & B

#SHTS (CALC): 61 **#ATT/#SHTS:** 5 / 89 **#IDV/50.59/72.48 SHTS:** 4 / 4 **#TOTAL SHTS:** 158

CHECK ONE:

☐ FINAL ☒ INTERIM (Proposed Plant Change) ☐ VOID

☐ FINAL (Future Confirmation Req'd, enter tracking Notification number:) _____

SALEM OR HOPE CREEK: ☒ Q – LIST ☐ IMPORTANT TO SAFETY ☐ NON-SAFETY RELATED

HOPE CREEK ONLY: ☒Q ☐Qs ☐Qsh ☐F ☐R

ISFSI: ☐ IMPORTANT TO SAFETY ☐ NOT IMPORTANT TO SAFETY

☒ ARE STATION PROCEDURES IMPACTED? YES ☒ NO ☐

IF "YES", INTERFACE WITH THE SYSTEM ENGINEER & PROCEDURE SPONSOR. ALL IMPACTED PROCEDURES SHOULD BE IDENTIFIED IN A SECTION IN THE CALCULATION BODY **[CRCA 70038194-0280]**. INCLUDE AN SAP OPERATION FOR UPDATE AND LIST THE SAP ORDERS HERE AND WITHIN THE BODY OF THIS CALCULATION.

HC.IC-CC.SE-0013 CP 80048085, SAP ORDER	HC.IC-CC.SE-0014 CP 80048085, SAP ORDER	HC.IC-CC.SE-0015 CP 80048085, SAP ORDER	HC.IC-CC.SE-0016 CP 80048085, SAP ORDER
HC.IC-CC.SE-0017 CP 80048085, SAP ORDER	HC.IC-CC.SE-0018 CP 80048085, SAP ORDER	HC.IC-FT.SE-0028 CP 80048085, SAP ORDER	HC.IC-FT.SE-0029 CP 80048085, SAP ORDER
HC.IC-FT.SE-0030 CP 80048085, SAP ORDER	HC.IC-FT.SE-0031 CP 80048085, SAP ORDER	HC.IC-FT.SE-0032 CP 80048085, SAP ORDER	HC.IC-FT.SE-0033 CP 80048085, SAP ORDER

☒ CP and ADs INCORPORATED (IF ANY): **DCP 80048085 AD I091**

DESCRIPTION OF CALCULATION REVISION (If applicable.):

Rev. 9IR1: Revise APRM Neutron Flux Upscale, Setdown NTSP and AV to 14% RTP and 19% RTP and Startup NTSP and AV to 11% and 13% RTP.

Rev. 9IR0: Revised the APRM flow-biased flux scram and rod block setpoints.

Rev. 8: Revised the APRM flow-biased flux scram setpoint and the APRM and RBM flow-biased rod block trip setpoints and incorporate new acceptance criteria for the surveillance procedures.

PURPOSE:

Rev. 9IR1: Revise APRM Neutron Flux Upscale, Setdown NTSP and AV to 14% RTP and 19% RTP and Startup NTSP and AV to 11% and 13% RTP per LCR H05-01.

Rev. 9IR0: Revise calculation as a result of the Extended Power Uprate DCP. This DCP implements 3840 MWt power uprate to the Hope Creek. The APRM flow-biased flux scram setpoint and APRM flow-biased rod block trip setpoints would be revised to permit operation in the EPU region.

Rev. 8: Revise calculation as a result of Maximum Extended Load Line Limit Analysis (MELLLA) DCP. This DCP makes the configuration changes to allow HCGS to operate in the MELLLA operating domain. The APRM flow-biased flux scran setpoint and the APRM and RBM flow-biased rod block trip setpoints would be revised to permit operation in the MELLLA region. Revised to incorporate new acceptance criteria, calibration and recalibration tolerances, for the surveillance procedures. The calibration and recalibration tolerances for the APRM and RBM Flow Biased setpoints were adjusted to allow for positive tolerance as well as negative tolerance.

CONCLUSIONS:

Rev. 9IR1: APRM Neutron Flux Upscale, Setdown and Startup NTSPs and AVs changed per LCR H05-01.

Rev. 9IR0: The setpoint changes proposed for APRM flow-biased setpoints maintain sufficient margin between AV and NTSP. Therefore, there was no adverse impact to this calculation.

	Printed Name / Signature	Date
ORIGINATOR/COMPANY NAME:	Brian Yu / PSEG	4/24/06
REVIEWER/COMPANY NAME:	N/A	
VERIFIER/COMPANY NAME:	Andrew Shaul / PSEG Andrew Shaul	4/24/06
CONTRACTOR SUPERVISOR (If applicable)	N/A	
PSEG SUPERVISOR APPROVAL: (Always	John Carey / PSEG John Carey	12/7/06

ORIGINATOR:	DATE:	REVIEWER:	DATE:	VERIFIER:	DATE:
B. Yu	3/10/06	N/A	N/A	A. Shaul	3/10/06

LIST OF EFFECTIVE PAGES

Because of the major scope change, the calculation main body and Attachment 5 page header are revised to reflect either Rev. 9IR0 or Rev. 9IR1. Both Rev. 9IR0 and 9IR1 are denoted with rev bars. Specific Rev. 9IR1 changes are marked "9IR1".

PAGE NO.	REV. NO.	PAGE NO.	REV. NO.	PAGE NO.	REV. NO.
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3	9IR0	33	9IR0		
4	9IR1	34	9IR0	Att.1	6
5	9IR1	35	9IR0	Att.2	6
6	9IR1	36	9IR1	Att.3	6
7	9IR1	37	9IR0	Att.4	8
8	9IR1	38	9IR0	Att.5	9IR1
9	9IR0	39	9IR0		
10	9IR0	40	9IR0		
11	9IR0	41	9IR0		
12	9IR0	42	9IR0		
13	9IR0	43	9IR0		
14	9IR0	44	9IR0		
15	9IR0	45	9IR0		
16	9IR0	46	9IR0		
17	9IR0	47	9IR0		
18	9IR0	48	9IR0		
19	9IR0	49	9IR1		
20	9IR0	50	9IR0		
21	9IR0	51	9IR0		
22	9IR0	52	9IR0		
23	9IR0	53	9IR0		
24	9IR0	54	9IR0		
25	9IR0	55	9IR0		
26	9IR0	56	9IR0		
27	9IR0	57	9IR0		
28	9IR0	58	9IR0		
29	9IR0	59	9IR1		
30	9IR0	60	9IR1		

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1.0 PURPOSE/SCOPE (Reference 3.1, 3.2, 3.9.8, 3.12, 3.13)

The purpose of this calculation is to document the Average Power Range Monitor (APRM) and Rod Block Monitor (RBM) flow-biased and fixed setpoints.

Interim revision 9IR0 is a major scope revision. It addresses the revision of the calculation as a result of DCP 80048085, Extended Power Uprate (EPU) Implementation. This Engineering Change Package 80048085 will make the plant configuration changes required to allow Hope Creek Generating Station to operate in the EPU operating domain.

2.0 FUNCTIONAL DESCRIPTION (Reference 3.1, 3.2, 3.9.8, 3.12, 3.13)

2.1 APRM (Average Power Range Monitor)

Function

The functions of the APRM system are to:

1. Generate trip signals to automatically scram the reactor during core-wide neutron flux transients before the actual core-wide neutron flux level exceeds the safety analysis design bases. This prevents exceeding design bases and licensing criteria from single operator errors or equipment malfunctions.
2. Block control rod withdrawal whenever operation occurs in excess of the APRM flow-biased Rod Block setpoints in the operating map and before core power approaches the scram level.
3. Provide an indication of the core average power level of the reactor in the power range.

The HCGS APRM system calculates an average of the in-core Local Power Range Monitor (LPRM) chamber signals. The LPRMs are averaged such that the APRM signal is proportional to the core average neutron flux and can be calibrated as a means of measuring core thermal power. The APRM signals are compared to a recirculation drive flow-referenced scram trip and a recirculation drive flow-referenced control rod withdrawal block trip.

9IR1

Changes Due to EPU

Although they are part of the HCGS design configuration and Technical Specifications, the APRM flow-biased simulated thermal power scram line and the APRM flow-biased rod block line are not credited in any HCGS safety licensing analyses. The purpose of this section is to discuss the setpoint changes for these systems for operational flexibility purposes.

For the current licensed power/flow map, the APRM flow-biased simulated thermal power - upscale (scram) line is currently defined as:

Nominal Trip Setpoint	0.66 (W – ΔW) + 66%, clamp at 113.5%
Allowable Value	0.66 (W – ΔW) + 69%, clamp at 115.5%

The APRM flow-biased neutron flux - upscale (rod block) line is currently set at:

Nominal Trip Setpoint	0.66 (W – ΔW) + 57%, clamp at 108%
Allowable Value	0.66 (W – ΔW) + 60%, clamp at 111%

where W is the recirculation drive flow in percent of rated and ΔW is 9% for single loop operation (SLO) and 0% for two loop operation (TLO).

The Hope Creek was originally licensed at 3293 MWt. As a result of previous licensing initiatives, Hope Creek is currently licensed at 3339 MWt. An inherent design margin in the BWR Nuclear Steam Supply System (NSSS) allows BWRs to increase generation through additional analysis and plant modifications performed under the EPU. The EPU will increase the licensing power level to 3840 MWt.

The increase in power level due to EPU increases the average flux in the core and at the in-core detectors. The APRM power signals are calibrated to read 100% at the new licensed power. For the APRM, the implementation of EPU requires changes to flow-biased setpoints.

The slope of the AL line is determined by rescaling the slope of the Original License Thermal Power (OLTP) line by the OLTP/EPU ratios of thermal powers. Rescaling does not alter the relationship of the AL line and the rod lines and provides the same operational margin as in the original design. A point on the new AL line is established using the minimum core flow value at EPU and the EPU APRM Scram Clamp thermal power value. This point is selected to conveniently bound EPU operation. The intercept of the new AL line is calculated using the new slope and point. In effect, the APRM flow-biased setpoint rescaling maintains comparable margin between the operating region and the APRM trips. The clamped setpoint retains its value (in percent power).

Reference 3.9.10 used the EPU AL results from Reference 3.9.9 and applied GE's Simplified Delta-AL method to determine AV and NTSP. The simplified method establishes the AV and NTSP by directly incorporating the relative change in the AL.

To accommodate the EPU operating domain, the following setpoints and allowable values (AVs) are redefined:

The APRM flow-biased simulated thermal power - upscale (scram):

Nominal Trip Setpoint	0.57 (W – ΔW) + 58%, clamp at 113.5%
Allowable Value	0.57 (W – ΔW) + 61%, clamp at 115.5%

The APRM flow-biased neutron flux - upscale (rod block) line:

Nominal Trip Setpoint	0.57 (W – ΔW) + 53%, clamp at 108%
Allowable Value	0.57 (W – ΔW) + 56%, clamp at 111%

where W is the recirculation drive flow in percent of rated and ΔW is 9% for SLO and 0% for TLO.

Non-Flow Biased APRM Neutron Flux-Upscale Setdown and Startup Setpoints

Function

The APRM Neutron Flux-Upscale Setdown is adjustable from 10 to 30 percent power at zero recirculation (driving loop) flow. The APRM Neutron Flux-Upscale Startup is adjustable from 7 to 27 percent power at zero recirculation (driving loop) flow.

9IR1

Currently, APRM Neutron Flux-Upscale Setdown settings are:

Nominal Trip Setpoint	15% RTD
Allowable Value	20% RTD

Currently, APRM Neutron Flux-Upscale Startup settings are:

Nominal Trip Setpoint	12% RTD
Allowable Value	14% RTD

Changes Due to EPU

The thermal margin monitoring requirement is reduced for the APRM Neutron Flux-Upscale

Setdown (AV and NTSP). Similarly, the APRM Neutron Flux-Upscale Startup is reduced by the same amount (AV and NTSP).

At EPU, APRM Neutron Flux-Upscale Setdown settings are:

Nominal Trip Setpoint	14% RTD
Allowable Value	19% RTD

9IR1

At EPU, APRM Neutron Flux-Upscale Startup settings are:

Nominal Trip Setpoint	11% RTD
Allowable Value	13% RTD

2.2 RBM (Rod Block Monitor)

Function

The Rod Block Monitor (RBM) System continuously monitors local power levels surrounding a control rod selected for movement. The RBM System will generate signals which permit or inhibit control rod withdrawal in order to prevent localized fuel damage due to overheating. The RBM System will be bypassed until Reactor power reaches 30%, since analyses have shown that overheating damage of the fuel is highly unlikely at power levels less than 30%.

Basis

RBM examines two categories of localized power level. The first category is when the localized power is equal to or greater than the average power. In this case, the control rod worth of the selected rod is assumed to be average and the localized power level can be directly compared to the trip setpoint. The second category of a rod with a lower localized power than average is of more concern. Assuming a group of control rods are all at the same level, a low localized neutron flux or depression around a selected control rod would indicate a high reacitivity worth during rod movement. The withdrawal of this rod could potentially increase the neutron flux at a faster rate than a rod with average reactivity worth.

Changes Due to EPU

No changes to the RBM setpoints are required for EPU (Reference 3.9.9). The RBM flow-biased - upscale (rod block) values, revised for MELLLA, remain valid for EPU:

Nominal Trip Setpoint	0.66 (W - ΔW) + 65%, clamp at 116%
Allowable Value	0.66 (W - ΔW) + 68%, clamp at 119%

where W is the recirculation drive flow in percent of rated and ΔW is 9% for single loop operation (SLO) and 0% for two loop operation (TLO).

3.0 REFERENCES

3.1 Updated Final Safety Analysis Report

Sections 7.2.1.1.1, 7.6.1.4, Table 7.6-2

3.2 Technical Specifications

3/ 4.1.4 : Section 3.1.4.3, 3/ 4.2.2 : Section 3.2.2, Tables 2.2.1-1, 3.3.6-1, and 3.3.6-2

3.3 Drawings

3.3.1 PN1-A41-8010-0043(1), Rev. 6 (Info), GEK–90341, GE System Descriptions

3.3.2 PN1-A41-8010-0043(2), Rev. 6, GEK–90343, GE APRM Components

3.3.3 PN0-C51-4010-0009(1), Rev. 4, GE Design Spec Data Sheet

3.3.4 PN1-C51-1080-0025, GE Elementary Diagrams

3.3.5 Intentionally left blank

3.3.6 PN1-C51-1010-0028, GE Neutron Monitoring Block Diagram

3.3.7 PN1-C51-4010-0001, GE Design Spec for Neutron Monitoring System

3.3.8 PN1-C51-3080-0037, GE Power Range Neutron Monitoring System Device List

3.3.9 PN1-H11-P608-0230 (001), GE RBM PAGE Parts List

3.3.9 PSJ200Q-006-01, Bailey 775 Indicator

3.3.10 PSJ200Q-008-01, Bailey 772 Recorder

3.3.11 PJ200Q-2994, Volume 2, DCRMS Page 385, Bailey 751 Scaler Module

3.4 SC-SE-0013-1, Recirculation Flow Setpoint Calculation

3.5 D7.5, Rev. 19, Hope Creek Generating Station Environmental Design Criteria

3.6 Telecon dated 1-30-86, To GE (San Jose)

3.7 Telecon dated 2-04-94, To GE (San Jose), Attachment # 1

3.8 DCP 4HZ-00178: DCP to incorporate Single Loop Recirc Flow Operational Setpoints, GE (San Jose)

3.9 Support Documents

3.9.1 Technical Standard HC.DE-TS.ZZ-1001, Rev. 0, Instrument Setpoint Calculations for Hope Creek Generating Station

3.9.2 NRC Regulatory Guide 1.105, Rev. 1, November 1976 – Instrument Setpoints

3.9.3 ISA-RP67.04.02-2000, Methodologies for the Determination of Setpoints for Nuclear Safety-Related Instrumentation, Approved 1 January 2000

3.9.4 Instrument Engineers' Handbook, B.G. Liptak, 1982. Chilton book Company

3.9.5 SAP

3.9.6 NEDC-31336, 1986, GE Instrument Setpoint Methodology

3.9.7 Keithley Digital Multimeters 197A 5 ½ - Digit Multimeter Specification from www.Keithley.com

3.9.8 MELLLA LCR Submittal H04-01 including GE NEDC-33066P Revision 2

3.9.9 VTD 430032(002), GE-NE-0000-0006-1980-02, Revision 1, GE Nuclear Energy Task Report for Hope Creek Generating Station Extended Power Uprate (Task T0500: Neutron Monitoring System)

3.9.10 VTD 430036(002), GE-NE-0000-0005-4365-01, Revision 1, GE Nuclear Energy Task Report for Hope Creek Generating Station Extended Power Uprate (Task T0506: NSSS TS Instrument Setpoints)

3.10 Procedures

3.10.1 HC.IC-CC.SE-0013, Rev. 26, NIS Channel A Average Power Range Monitor

3.10.2 HC.IC-CC.SE-0014, Rev. 27, NIS Channel B Average Power Range Monitor

3.10.3 HC.IC-CC.SE-0015, Rev. 27, NIS Channel C Average Power Range Monitor

3.10.4 HC.IC-CC.SE-0016, Rev. 26, NIS Channel D Average Power Range Monitor

3.10.5 HC.IC-CC.SE-0017, Rev. 25, NIS Channel E Average Power Range Monitor

3.10.6 HC.IC-CC.SE-0018, Rev. 22, NIS Channel F Average Power Range Monitor

3.10.7 HC.IC-CC.SE-0019, Rev. 29, NIS Non Divisional Channel A Rod Block Monitor

3.10.8 HC.IC-CC.SE-0020, Rev. 27, NIS Non Divisional Channel B Rod Block Monitor

3.10.9 HC.IC-FT.SE-0028, Rev. 26, NIS Channel A APRM Single Loop Flow Operation

3.10.10 HC.IC-FT.SE-0029, Rev. 11, NIS Channel B APRM Single Loop Flow Operation

3.10.11 HC.IC-FT.SE-0030, Rev. 11, NIS Channel C APRM Single Loop Flow Operation

3.10.12 HC.IC-FT.SE-0031, Rev. 11, NIS Channel D APRM Single Loop Flow Operation

3.10.13 HC.IC-FT.SE-0032, Rev. 10, NIS Channel E APRM Single Loop Flow Operation

3.10.14 HC.IC-FT.SE-0033, Rev. 10, NIS Channel F APRM Single Loop Flow Operation

3.10.15 HC.IC-FT.SE-0034, Rev. 10, NIS Channel A Rod Block Monitor Single Loop Flow Operation

3.10.16 HC.IC-FT.SE-0035, Rev. 10, NIS Channel B Rod Block Monitor Single Loop Flow Operation

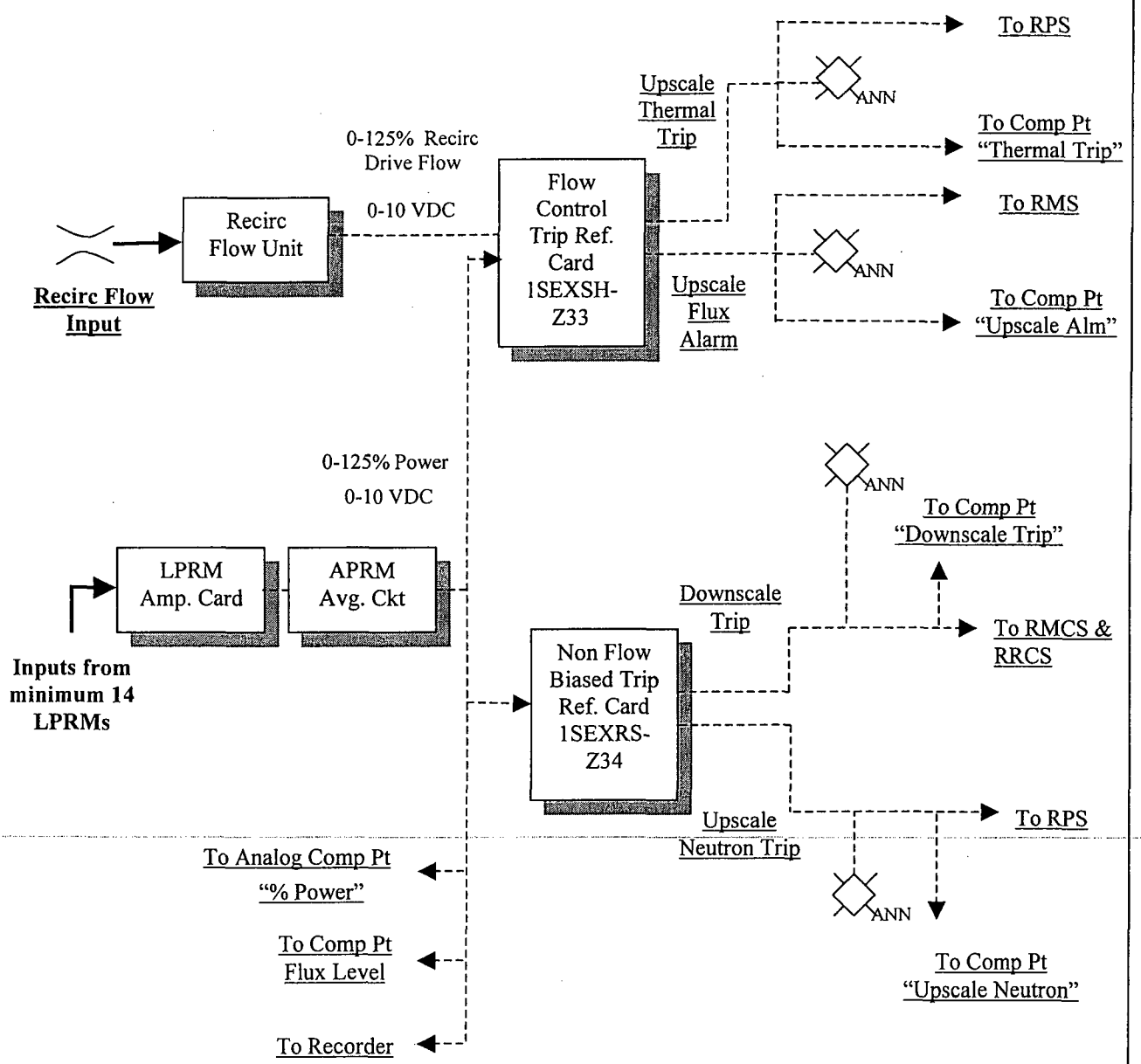
3.11 DCP80071246: Replace APRM and RBM Flow Control Trip Reference Cards

3.11 DCP80043101: MELLLA Implementation

3.12 DCP80048085: EPU Implementation

4.0 LOOP DIAGRAM

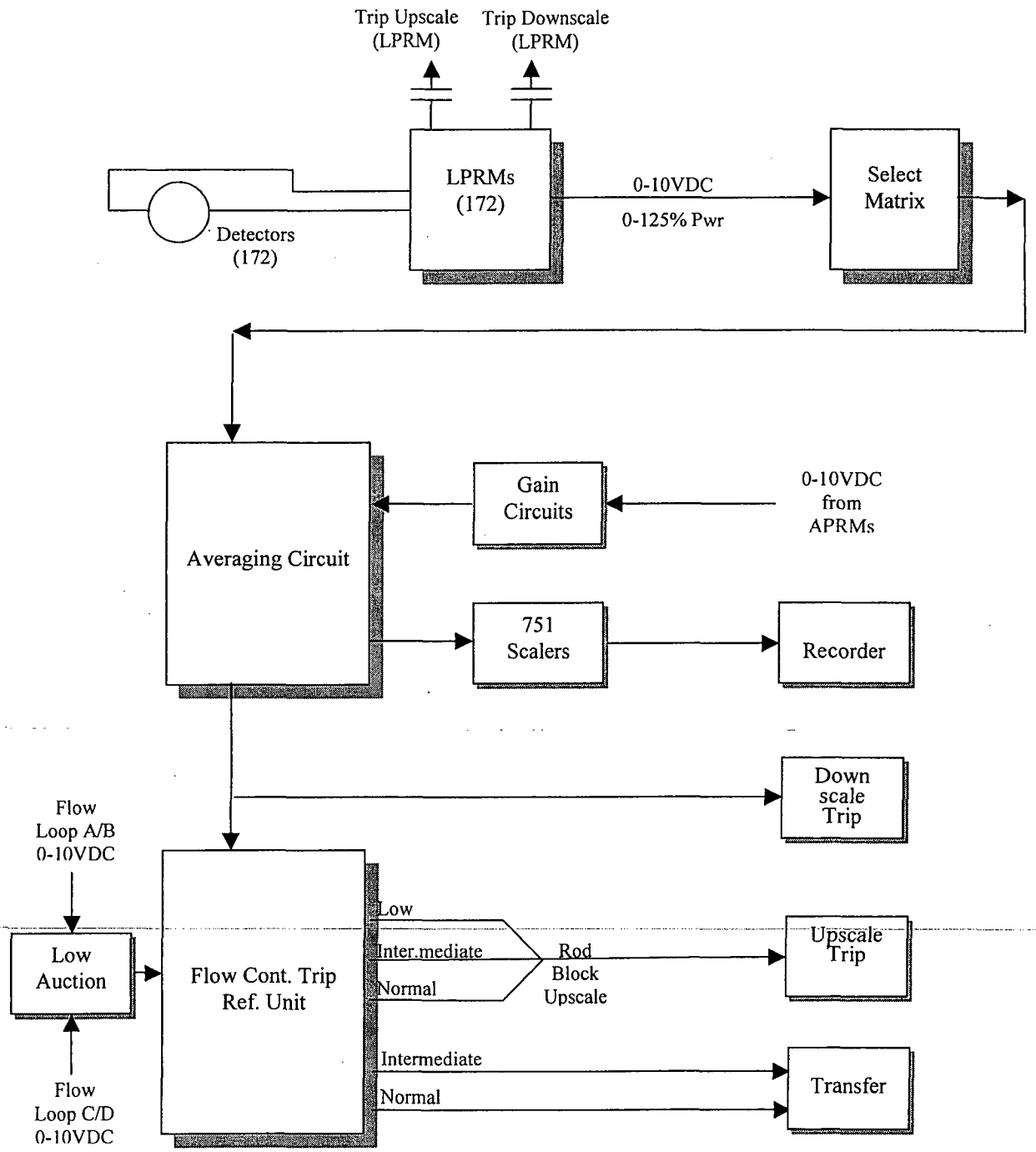
APRM Loop Diagram (Typical for Channels A-F)



Simplified Diagram

ORIGINATOR:	DATE:	REVIEWER:	DATE:	VERIFIER:	DATE:
B. Yu	3/10/06	N/A	N/A	A. Shaul	3/10/06

RBMS Loop Diagram (Typical for Channels A and B)



2.0 **Simplified Diagram**

5.0 DESIGN INPUTS

Component IDs

TYPE	CHAN A	CHAN B	CHAN C	CHAN D	CHAN E	CHAN F
METER INDICATOR	1SEXI M1-A	1SEXI M1-B	1SEXI M1-C	1SEXI M1-D	1SEXI M1-E	1SEXI M1-F
VOLTAGE REGULATOR	1SEXVR-0001A 0002A 0003A	1SEXVR-0001B 0002B 0003B	1SEXVR-0001C 0002C 0003C	1SEXVR-0001D 0002D 0003D	1SEXVR-0001E 0002E 0003E	1SEXVR-0001F 0002F 0003F
20 VDC PWR SUPPLY	1SEXPS-0034A	1SEXPS-0034B	1SEXPS-0034C	1SEXPS-0034D	1SEXPS-0034E	1SEXPS-0034F
5 VDC PWR SUPPLY	1SEXPS-0025A 0026A 0027A	1SEXPS-0025B 0026B 0027B	1SEXPS-0025C 0026C 0027C	1SEXPS-0025D 0026D 0027D	1SEXPS-0025E 0026E 0027E	1SEXPS-0025F 0026F 0027F
100 VDC HIGH VOLT PWR SUPPLY	1SEXPS-	1SEXPS-	1SEXPS-	1SEXPS-	1SEXPS-	1SEXPS-
PS1	32-49B	08-49B	24-57B	32-57B	16-49B	24-49B
PS2	16-33B	40-49B	08-41B	16-41B	48-49B	
PS3	48-33B	24-33B	40-41B	48-41B	32-33B	08-33B
PS4	32-17B	56-33B	24-25B	32-25B	16-17B	40-33B
PS5		08-17B	56-25B	16-09B	48-17B	24-17B
PS6		40-17B	40-09B	48-09B		56-17B
PS7	16-49D	24-49D	40-57D	16-57D	32-49D	08-49D
PS8	48-49D		24-41D		16-33D	40-49D
PS9	32-33D	08-33D	56-41D	32-41D	48-33D	24-33D
PS10	16-17D	40-33D	08-25D	16-25D	32-17D	56-33D
PS11	48-17D	24-17D	40-25D	48-25D		08-17D
PS12		56-17D	24-09D	32-09D		40-17D
PS13	24-57A	32-57A	16-49A	24-49A	40-57A	16-57A
PS14	08-41A	16-41A	48-49A		24-41A	
PS15	40-41A	48-41A	32-33A	08-33A	56-41A	32-41A
PS16	24-25A	32-25A	16-17A	40-33A	08-25A	16-25A
PS17	56-25A	16-09A	48-17A	24-17A	40-25A	48-25A
PS18	40-09A	48-09A		56-17A	24-09A	32-09A
PS19	50-57C	16-57C	32-49C	08-49C	24-57C	32-57C
PS20	24-41C		16-33C	40-49C	08-41C	16-41C
PS21	56-41C	32-41C	48-33C	24-33C	40-41C	48-41C
PS22	08-25C	16-25C	32-17C	56-33C	24-25C	32-25C
PS23	40-25C	48-25C		08-17C	56-25C	16-09C
PS24	24-09C	32-09C		40-17C	40-09C	48-09C

ORIGINATOR:	DATE:	REVIEWER:	DATE:	VERIFIER:	DATE:
B. Yu	3/10/06	N/A	N/A	A. Shaul	3/10/06

LPRM Probes

1BBRE-12D193B11	1BBRE-27D193B11	1BBRE-44D193B11	1BBRE-61D193B11
1BBRE-13D193B11	1BBRE-31D193B11	1BBRE-45D193B11	1BBRE-62D193B11
1BBRE-14D193B11	1BBRE-32D193B11	1BBRE-46D193B11	1BBRE-63D193B11
1BBRE-15D193B11	1BBRE-33D193B11	1BBRE-47D193B11	1BBRE-64D193B11
1BBRE-16D193B11	1BBRE-34D193B11	1BBRE-51D193B11	1BBRE-65D193B11
1BBRE-21D193B11	1BBRE-35D193B11	1BBRE-52D193B11	1BBRE-66D193B11
1BBRE-22D193B11	1BBRE-36D193B11	1BBRE-53D193B11	1BBRE-72D193B11
1BBRE-23D193B11	1BBRE-37D193B11	1BBRE-54D193B11	1BBRE-73D193B11
1BBRE-24D193B11	1BBRE-41D193B11	1BBRE-55D193B11	1BBRE-74D193B11
1BBRE-25D193B11	1BBRE-42D193B11	1BBRE-56D193B11	1BBRE-75D193B11
1BBRE-26D193B11	1BBRE-43D193B11	1BBRE-57193B11	

LPRM Level Cards

1SEXY-08-17AC51	1SEXY-16-57BC51	1SEXY-32-33CC51	1SEXY-48-09DC51
1SEXY-08-25BC51	1SEXY-24-09BC51	1SEXY-32-41BC51	1SEXY-48-17CC51
1SEXY-08-33CC51	1SEXY-24-17CC51	1SEXY-32-49AC51	1SEXY-48-25BC51
1SEXY-08-41DC51	1SEXY-24-25DC51	1SEXY-32-57DC51	1SEXY-48-33AC51
1SEXY-08-49AC51	1SEXY-24-33AC51	1SEXY-40-09DC51	1SEXY-48-41DC51
1SEXY-16-09DC51	1SEXY-24-41BC51	1SEXY-40-17AC51	1SEXY-48-49CC51
1SEXY-16-17CC51	1SEXY-24-49CC51	1SEXY-40-25BC51	1SEXY-56-17CC51
1SEXY-16-25BC51	1SEXY-24-57DC51	1SEXY-40-33CC51	1SEXY-56-25DC51
1SEXY-16-33AC51	1SEXY-32-09DC51	1SEXY-40-41DC51	1SEXY-56-33AC51
1SEXY-16-41DC51	1SEXY-32-17AC51	1SEXY-40-49AC51	1SEXY-56-41BC51
1SEXY-16-49CC51	1SEXY-32-25DC51	1SEXY-40-57BC51	

APRM Computer Points

Channel A	Channel B	Channel C	Channel D
A2175	A2177	A2179	A3480
A2176	A2178	A2180	A3481

RBM Computer Points

RBM CHANNEL A	RBM CHANNEL B
ANALOG – FLUX LEVEL	**ANALOG – FLUX LEVEL**
A-2187 LPRM A	A-2197 LPRM B
A-2188 LPRM C	A-2198 LPRM D
A-2189 LPRM E	A-2199 LPRM F
A-2190 LPRM G	A-2200 LPRM H
A-2191 LPRM J	A-2201 LPRM K
A-2192 LPRM L	A-2202 LPRM M
A-2193 LPRM N	A-2203 LPRM P
A-2194 LPRM R	A-2204 LPRM S
A-2195 ALARM LEVEL	A-2205 ALARM LEVEL
A-2196 POWER LEVEL	A-2206 POWER LEVEL
DIGITAL – LPRM's BYPASSED	**DIGITAL – LPRM's BYPASSED**
D-3963	D-3984
D-3964	D-3985
D-3965	D-3986
D-3966	D-3987
D-3967	D-3988
D-3968	D-3989
D-3969	D-3990
D-3970	D-3991
D-3971 RBM SET HI	D-3992 RBM SET HI
D-3972 RBM SET INTERMEDIATE	D-3993 RBM SET INTERMEDIATE
D-3973 RBM SET LOW	D-3994 RBM SET LOW

Bailey 775 Indicators

1SEXI-R604A-C51	1SEXI-R604J-C51
1SEXI-R604B-C51	1SEXI-R604K-C51
1SEXI-R604C-C51	1SEXI-R604L-C51
1SEXI-R604D-C51	1SEXI-R604M-C51
1SEXI-R604E-C51	1SEXI-R604N-C51
1SEXI-R604F-C51	1SEXI-R604P-C51
1SEXI-R604G-C51	1SEXI-R604R-C51
1SEXI-R604H-C51	1SEXI-R604S-C51

5.1 SPECIFICATIONS (Reference 3.3.3, 3.7)

GE specifies accuracies for Power Range Neutron Monitoring System as a channel accuracy. Instrument numbers have been assigned for each circuit card in the system. It is not always possible to assign a separate accuracy for each circuit card due to GE's specifications.

5.1.1 ENVIRONMENTAL CRITERIA

For all components located in the Main Control Room (Room 5510). Per D7.5 (Ref. 3.5), the following conditions apply:

ROOM 5510 MAIN CONTROL RM	Normal Min/Max	Abnormal Min/Max
Pressure	0.0 / + 0.25 inwc	- 0.25 / + 0.25 inwc
Temperature:	66 to 78 Deg F	78 Deg F
% RH	20% to 60%	40% to 50%
Max Dose Rate	0.0005 R/hr	NA
Total Integrated Dose (TID)	2 x 10E2 RAD	NA

Reference 3.3.1, GE System Description for Power Range Neutron Monitoring System, provides equipment specifications for "restricted" condition and "full" conditions. The restricted condition refers to the normal control room operating environment of typically 60 to 90 degrees F and full condition refers to off normal control room condition of 104 degrees F. The restricted condition envelops the postulated temperature range of the HCGS main control room. The equipment specification shall be based on the restricted condition.

5.2 LPRM PROBE's

Component ID:	**1BBRE-See Table on Page 14**
Manufacturer/Model No.:	GE / 163C1154G2 or RS-C6-1312-201
Quality Classification:	Q
Accident Service:	Required
Seismic Category:	I
Excitation:	NA
Tech Spec Requirement:	No
Range Limits:	NA
Calibrated Range:	1.2E12 to 3.4E14nV
Input:	1.2E12 to 3.4E14nV
Process:	Neutron Flux
Span:	-50μADC to -3mADC
Output Signal:	50μADC to 3mADC
Output Signal To:	LPRM Level Card
Calibration Period:	Not Calibrated
Baseline Accuracy (VA):	± 1.0 % output range Ref. 3.3.7, Section 4.4.2.6
Deadband (DB):	NA
Drift (VD):	NA
Temperature Affect (ATE):	NONE included in accuracy
Humidity Effect (HE):	NONE
Power Supply Effect (PSE):	NONE
RFI/EMI Effect (REE):	NONE
Radiation Effect (RE):	NONE - included in accuracy – device is replaced every 3-5 years per EQ requirements
Seismic Effect (SE):	NONE
Steam Pressure/Temperature Effect (SPT):	NA
Post DBE Operation (PDB):	NA
Assigned Sigma Value:	2

NA denotes information that was not available from Vendor Manual.

5.3 LPRM LEVEL CARD, Control Room

Component ID:	**1SEXY- See Table on page 14**
Manufacturer/Model No.:	GE / 136B2543AAG1
Quality Classification:	Q
Accident Service:	Required
Seismic Category:	I
Excitation:	NA
Tech Spec Requirement:	No
Range Limits:	NA
Calibrated Range:	NA
Input:	50 μADC-250μADC Ref. 3.3.1, Pg 1-17
Span:	10 VDC
Output Signal:	Contacts, 0-10 VDC, 0-160 mVDC
Output Signal To:	APRM, Computer point
Calibration Period:	184 days
Baseline Accuracy (VA):	± 2.0% Span Ref. 3.3.7, Section 4.4.5.2
Deadband (DB):	NA
Drift (VD):	Specified as part of trip setpoint
Plant Specific Analyzed Drift:	± 1.397% For: 6 Month Calibration Attachment 4
Temperature Affect (ATE):	Included in VA
Humidity Effect (HE):	Included in VA
Power Supply Effect (PSE):	Negligible – Power supply is rated to have a ± 1.0% output variation for a 5% input variation. The 120 VAC supply will be stable within ± 4.0%, therefore, PSE is negligible
RFI/EMI Effect (REE):	Negligible - Control Room
Radiation Effect (RE):	Negligible - Control Room
Seismic Effect (SE):	Negligible - Control Room
Steam Pressure/Temperature Effect (SPT):	NA
Post DBE Operation (PDB):	NA
Assigned Sigma Value:	2

NA denotes information that was not available from Vendor Manual.

5.4 APRM & RBM Flow Control Trip Ref Card, Control Room

Component ID:	**1SEXSH-Z33A/B/C/D/E/F-C51, 1SEXRS-Z34ARBC51, 1SEXRS-Z34BRBC51**
Manufacturer/Model No.:	GE / 198B6918AAG3
Quality Classification:	Q
Accident Service:	Required
Seismic Category:	I
Excitation:	NA
Tech Spec Requirement: YES	Section: Section 3.2.2, Table 2.2.1-1, Table 3.3.6-2
Range Limits:	NA
Calibrated Range:	0 – 10 VDC
Input:	0 – 10 VDC
Process:	NA
Span:	10 VDC
Output Signal:	Contacts
Calibration Period:	184 Days
Baseline Accuracy (VA):	± 1.0% Span Ref. 3.3.1, Page 1-12
Deadband (DB):	NA
Drift (VD):	± 3% For: 700 Hours Ref. 3.3.3, Sh. 15
Plant Specific Analyzed Drift:	± 0.572% For: 6 Month Calibration Attachment 4
Temperature Affect (ATE):	Included in VA
Humidity Effect (HE):	Negligible - Control Room
Power Supply Effect (PSE):	Negligible – Power supply is rated to have a ± 1.0% output variation for a 5% input variation. The 120 VAC supply will be stable within ±4.0%, therefore, PSE is negligible.
RFI/EMI Effect (REE):	Included in VA
Radiation Effect (RE):	Negligible - Control Room
Seismic Effect (SE):	Negligible - Control Room
Steam Pressure/Temperature Effect (SPT):	NA
Post DBE Operation (PDB):	NA
Assigned Sigma Value:	2

NA denotes information that was not available from Vendor Manual.

5.5 APRM & RBM Trip Reference Cards, Control Room

Component ID:	**1SEXRS-Z34A/B/C/D/E/F-C51, 1SEXRS-Z36ARBC51 1SEXRS-Z36BRBC51**
Manufacturer/Model No.:	GE / 136B3122AA
Quality Classification:	Q
Accident Service:	Required
Seismic Category:	I
Excitation:	NA
Tech Spec Requirement: YES	Section: Section 3.2.2, Table 2.2.1-1, Table 3.3.6-2
Range Limits:	NA
Calibrated Range:	NA
Input:	0-10 VDC
Span:	10 VDC
Output Signal:	Contacts
Calibration Period:	184 Days
Baseline Accuracy (VA):	± 2.0% Span Ref. 3.3.1, Page 1-11
Deadband (DB):	NA
Drift (VD):	± 2%, ±1% For: 700 Hours Ref. 3.3.3, Sh. 15
Plant Specific Analyzed Drift:	± 0.511% For: 6 Month Calibration Attachment 4
Temperature Affect (ATE):	Included in VA
Humidity Effect (HE):	Included in VA
Power Supply Effect (PSE):	Power supply is rated to have a ± 1.0% output variation for a 5% input variation. The 120 VAC supply will be stable within ± 4.0%, therefore, PSE is Negligible.
RFI/EMI Effect (REE):	Negligible – Control Room
Radiation Effect (RE):	Negligible - Control Room
Seismic Effect (SE):	Negligible - Control Room
Steam Pressure/Temperature Effect (SPT):	NA
Post DBE Operation (PDB):	NA
Assigned Sigma Value:	2

NA denotes information that was not available from Vendor Manual.

5.6 APRM AVGERAGING UNIT, Control Room

Component ID:	**1SEAPRM-K605A/B/C/D/E/F**
Manufacturer/Model No.:	GE / 328X105ACG001
Quality Classification:	Q
Accident Service:	Required
Seismic Category:	I
Excitation:	NA
Tech Spec Requirement:	No
Range Limits:	0 – 10 VDC
Calibrated Range:	0 – 10 VDC
Input:	0 – 10 VDC
Span:	10 VDC
Output Signal:	0 – 10 VDC
Calibration Period:	NA
Baseline Accuracy (VA):	± 0.8% Span Ref. 3.3.1, Page 1-11
Deadband (DB):	NA
Drift (VD):	± 0.5% Span For: 700 Hours Ref. 3.3.1, Page 1-11
Temperature Affect (ATE):	Included in VA
Humidity Effect (HE):	Included in VA
Power Supply Effect (PSE):	Negligible
RFI/EMI Effect (REE):	Negligible - Control Room
Radiation Effect (RE):	Negligible - Control Room
Seismic Effect (SE):	Negligible - Control Room
Steam Pressure/Temperature Effect (SPT):	NA
Post DBE Operation (PDB):	NA
Assigned Sigma Value:	2

NA denotes information that was not available from Vendor Manual.

5.7 RBM AVERAGING CARD, Control Room

Component ID:	**RBM AVERAGING CIRCUITS**
Manufacturer/Model No.:	GE / 136B1308
Quality Classification:	Q
Accident Service:	Required
Seismic Category:	I
Excitation:	NA
Tech Spec Requirement:	No
Range Limits:	0 –10 VDC
Calibrated Range:	0 –10 VDC
Input:	8 Signals, 0 – 10 VDC
Span:	10 VDC
Output Signal:	0 –10 VDC
Calibration Period:	184 Days
Baseline Accuracy (VA):	± 0.8% Span Ref. 3.3.1, Page 1-16
Deadband (DB):	NA
Drift (VD):	± 0.3% Span for 4 Hours Ref. 3.3.1, Page 1-16
Temperature Affect (ATE):	Included in VA
Humidity Effect (HE):	Negligible - Control Room
Power Supply Effect (PSE):	Negligible – Power supply is rated to have a ± 1.0% output variation for a 5% input variation. The 120 VAC supply will be stable within ± 4.0%, therefore, PSE is negligible
RFI/EMI Effect (REE):	Negligible - Control Room
Radiation Effect (RE):	Negligible - Control Room
Seismic Effect (SE):	Negligible - Control Room
Steam Pressure/Temperature Effect (SPT):	NA
Post DBE Operation (PDB):	NA
Assigned Sigma Value:	2

NA denotes information that was not available from Vendor Manual.

5.8 INDICATOR, Control Room

Component ID:	**1SEXI-M1A/B/C/D/E/F-C51**
Manufacturer/Model No.:	GE / Part of APRM
Quality Classification:	Q
Accident Service:	Required
Seismic Category:	I
Excitation:	NA
Tech Spec Requirement:	No
Range Limits:	NA
Calibrated Range:	NA
Input:	0-10 VDC
Span:	10 VDC
Output Signal:	Indication
Calibration Period:	184 Days
Baseline Accuracy (VA):	± 1.0% Span Ref. 3.9.5
Deadband (DB):	NA
Drift (VD):	NA
Plant Specific Analyzed Drift:	± 0.987% For: 6 Month Calibration Attachment 4
Temperature Affect (ATE):	Included in VA
Humidity Effect (HE):	Included in VA
Power Supply Effect (PSE):	Negligible - Power supply is rated to have a ± 1.0% output variation for a 5% input variation. The 120 VAC supply will be stable within ± 4.0%, therefore, PSE is negligible
RFI/EMI Effect (REE):	Negligible – Control Room
Radiation Effect (RE):	Negligible - Control Room
Seismic Effect (SE):	Negligible - Control Room
Steam Pressure/Temperature Effect (SPT):	NA
Post DBE Operation (PDB):	NA
Assigned Sigma Value:	2

NA denotes information that was not available from Vendor Manual.

5.9 FLOW UNIT, Control Room

Component ID:	**Various**
Manufacturer/Model No.:	See SC-SE-0013-1 (Ref. 3.4)
Quality Classification:	Q
Accident Service:	Required
Seismic Category:	I
Excitation:	NA
Tech Spec Requirement:	No
Range Limits:	NA
Calibrated Range:	4 – 20 mA
Input:	4 – 20 mA
Process:	0 – 55,000 GPM
Span:	55,000 GPM
Output Signal:	0 – 10 VDC
Calibration Period:	184 Days
Baseline Accuracy (VA):	± 1.0% Span Ref. 3.3.7, Section 4.7.4
Deadband (DB):	NA
Drift (VD):	± 1.25% Span for 700 Hours Ref. 3.3.7, Section 4.7.5
Temperature Affect (ATE):	Included in VA
Humidity Effect (HE):	Negligible – Control Room
Power Supply Effect (PSE):	Negligible - Power supply is rated to have a ± 1.0% output variation for a 5% input variation. The 120 VAC supply will be stable within ± 4.0%, therefore, PSE is negligible
RFI/EMI Effect (REE):	Included in VA
Radiation Effect (RE):	Negligible - Control Room
Seismic Effect (SE):	Negligible - Control Room
~~Steam Pressure/Temperature Effect (SPT):~~	~~NA~~
Post DBE Operation (PDB):	NA
Assigned Sigma Value:	2

NA denotes information that was not available from Vendor Manual.

5.10 RBM NULL SEQUENCE CARD, Control Room

Component ID:	**1SEXRS-Z32ARBC51** **1SEXRS-Z32BRBC51**
Manufacturer/Model No.:	GE / 193B1202AA
Quality Classification:	Q
Accident Service:	Required
Seismic Category:	I
Excitation:	NA
Tech Spec Requirement:	No
Range Limits:	0 – 10 VDC
Calibrated Range:	0 – 10 VDC
Input:	0 – 10 VDC
Span:	10 VDC
Output Signal:	0 – 10 VDC
Calibration Period:	184 Days
Baseline Accuracy (VA):	± 1.5% Span Ref. 3.3.1, Page 1-16
Deadband (DB):	NA
Drift (VD):	± 0.3% for 4 Hours Ref. 3.3.1, Page 1-16
Temperature Affect (ATE):	Included in VA
Humidity Effect (HE):	Negligible – Control Room
Power Supply Effect (PSE):	Negligible – Control Room
RFI/EMI Effect (REE):	Negligible - Control Room
Radiation Effect (RE):	Negligible - Control Room
Seismic Effect (SE):	Negligible - Control Room
Steam Pressure/Temperature Effect (SPT):	NA
Post DBE Operation (PDB):	NA
Assigned Sigma Value:	2

NA denotes information that was not available from Vendor Manual.

5.11 RBM GAIN CHANGE CARD, Control Room

Component ID:	**1SEXRS-Z31ARBC51** **1SEXRS-Z31BRBC51**
Manufacturer/Model No.:	GE / 136B3117AA
Quality Classification:	Q
Accident Service:	Required
Seismic Category:	I
Excitation:	NA
Tech Spec Requirement:	No
Range Limits:	NA
Calibrated Range:	NA
Input:	0 – 10 VDC
Span:	10 VDC
Output Signal:	Gain
Calibration Period:	184 Days
Baseline Accuracy (VA):	± 0.8% Span Ref. 3.3.1, Page 1-16
Deadband (DB):	NA
Drift (VD):	± 0.3% for 4 Hours Ref. 3.3.1, Page 1-16
Temperature Affect (ATE):	Included in VA
Humidity Effect (HE):	Negligible - Control Room
Power Supply Effect (PSE):	Negligible – Power supply is rated to have a ± 1.0% output variation for a 5% input variation. The 120 VAC supply will be stable within ±4.0%, therefore, PSE is negligible.
RFI/EMI Effect (REE):	Included in VA
Radiation Effect (RE):	Negligible - Control Room
Seismic Effect (SE):	Negligible - Control Room
Steam Pressure/Temperature Effect (SPT):	NA
Post DBE Operation (PDB):	NA
Assigned Sigma Value:	2

NA denotes information that was not available from Vendor Manual.

5.12 PANEL INDICATOR, Control Room

Component ID:	**1SEXI-R604 A/B/C/D/E/F/G/H/J/K/L/M/N/P/R/S-C51**
Manufacturer/Model No.:	BAILEY / 775 INDICATOR
Quality Classification:	Q
Accident Service:	Required
Seismic Category:	I
Excitation:	NA
Tech Spec Requirement:	No
Range Limits:	NA
Calibrated Range:	0 – 10 VDC
Input:	0 – 10 VDC
Span:	10 VDC
Output Signal:	0 – 125% Indication
Calibration Period:	550 Days
Baseline Accuracy (VA):	± 0.5% Span Ref. 3.3.9
Deadband (DB):	NA
Drift (VD):	Not Available
Temperature Effect (ATE):	± 0.4% Span / ΔT of ±40 Deg F from 80 Deg F
Humidity Effect (HE):	Included in VA
Power Supply Effect (PSE):	± 0.3% Span
RFI/EMI Effect (REE):	Negligible – Control Room
Radiation Effect (RE):	Negligible - Control Room
Seismic Effect (SE):	Negligible - Control Room
Steam Pressure/Temperature Effect (SPT):	NA
Post DBE Operation (PDB):	NA
Assigned Sigma Value:	2

NA denotes information that was not available from Vendor Manual.

5.13 PANEL RECORDER, Control Room

Component ID:	**1SEXR-R603C/D-C51**
Manufacturer/Model No.:	BAILEY / 772 RECORDER or Minitrend
Quality Classification:	Q
Accident Service:	Required
Seismic Category:	I
Tech Spec Requirement:	No
Range Limits:	NA
Calibrated Range:	0 – 1 VDC
Input:	0 – 1 VDC
Span:	0 – 1 VDC
Output Signal:	0 – 125%
Calibration Period:	550 Days
Baseline Accuracy (VA):	± 0.5% Span * Ref. 3.3.10
Deadband (DB):	± 0.2% Span
Drift (VD):	Negligible
Plant Specific Analyzed Drift:	± 0.905% For: 6 Month Calibration Attachment 4
Temperature Affect (ATE):	± 0.4% Span / ΔT of ± 40 from 80 Deg F
Humidity Effect (HE):	Negligible – Control Room
Power Supply Effect (PSE):	± 0.3% Span
RFI/EMI Effect (REE):	Negligible - Control Room
Radiation Effect (RE):	Negligible - Control Room
Seismic Effect (SE):	Negligible - Control Room
Steam Pressure/Temperature Effect (SPT):	NA
Post DBE Operation (PDB):	NA
Assigned Sigma Value:	2

NA denotes information that was not available from Vendor Manual.
* Accuracy is bounded by Bailey 772 Recorder Specification.

5.14 SCALER MODULE

Component ID:	**1SEEY-1019A/B**
Manufacturer/Model No.:	BAILEY / 751010AAAA2
Quality Classification:	NA
Accident Service:	Required
Seismic Category:	I
Excitation:	NA
Tech Spec Requirement:	No
Range Limits:	NA
Calibrated Range:	0 – 1 VDC
Input:	0 - 0.95 VDC
Span:	0 – 1 VDC
Output Signal:	0 – 1 VDC
Calibration Period:	550 Days
Baseline Accuracy (VA):	± 0.5% Span for gain of 1, ± 1.5% Span for gain of 4. The gain of this device is 1.053 (1/0.95). To be conservative, (1.053-1)/3 = 0.0176, or 0.02, 0.02 x 1.0 +0.5 = 0.52 % Span will be used. Ref. 3.3.11
Deadband (DB):	NA
Drift (VD):	± 0.2% Span for 30 Days Ref. 3.3.11
Temperature Affect (ATE):	± 0.5% Span / ΔT of ± 40 from 80 Deg F
Humidity Effect (HE):	Negligible – Control Room
Power Supply Effect (PSE):	± 0.2% Span, ± 2VDC from 24VDC
RFI/EMI Effect (REE):	Negligible - Control Room
Radiation Effect (RE):	Negligible - Control Room
Seismic Effect (SE):	Negligible - Control Room
Steam Pressure/Temperature Effect (SPT):	NA
Post DBE Operation (PDB):	NA
Assigned Sigma Value:	2

NA denotes information that was not available from Vendor Manual.

5.15 5V POWER SUPPLY, Control Room

Component ID:	**1SEXPS-See Table on Page 12**
Manufacturer/Model No.:	GE / 135B9879G-1
Quality Classification:	Q
Accident Service:	Required
Seismic Category:	I
Excitation:	NA
Tech Spec Requirement:	No
Range Limits:	NA
Calibrated Range:	5 VDC
Input:	115 VAC
Span:	5 VDC
Output Signal:	5 VDC
Calibration Period:	184 days
Baseline Accuracy (VA):	NA
Deadband (DB):	NA
Drift (VD):	NA
Temperature Affect (ATE):	NA
Humidity Effect (HE):	Negligible - Control Room
Power Supply Effect (PSE):	NA
RFI/EMI Effect (REE):	Negligible - Control Room
Radiation Effect (RE):	Negligible - Control Room
Seismic Effect (SE):	Negligible - Control Room
Steam Pressure/Temperature Effect (SPT):	NA
Post DBE Operation (PDB):	NA
Assigned Sigma Value:	2

NA denotes information that was not available from Vendor Manual.

5.16 20V POWER SUPPLY, Control Room

Component ID:	**1SEXPS- See Table on Page 12**
Manufacturer/Model No.:	GE / 135B9879 or ABB / 2001731
Quality Classification:	Q
Accident Service:	Required
Seismic Category:	I
Excitation:	NA
Tech Spec Requirement:	No
Range Limits:	NA
Calibrated Range:	20 VDC
Input:	115 VAC
Span:	20 VDC
Output Signal:	20 VDC
Calibration Period:	184 days
Baseline Accuracy (VA):	NA
Deadband (DB):	NA
Drift (VD):	NA
Temperature Affect (ATE):	NA
Humidity Effect (HE):	Negligible - Control Room
Power Supply Effect (PSE):	NA
RFI/EMI Effect (REE):	Negligible - Control Room
Radiation Effect (RE):	Negligible - Control Room
Seismic Effect (SE):	Negligible - Control Room
Steam Pressure/Temperature Effect (SPT):	NA
Post DBE Operation (PDB):	NA
Assigned Sigma Value:	2

NA denotes information that was not available from Vendor Manual.

5.17 100V POWER SUPPLY, Control Room

Component ID:	**1SEXPS- See Table on Page 12**
Manufacturer/Model No.:	GE / 193B1392AA
Quality Classification:	Q
Accident Service:	Required
Seismic Category:	I
Excitation:	NA
Tech Spec Requirement:	No
Range Limits:	NA
Calibrated Range:	100 VDC
Input:	115 VAC
Span:	100 VDC
Output Signal:	100 VDC
Calibration Period:	184 days
Baseline Accuracy (VA):	NA
Deadband (DB):	NA
Drift (VD):	NA
Temperature Affect (ATE):	NA
Humidity Effect (HE):	Negligible - Control Room
Power Supply Effect (PSE):	NA
RFI/EMI Effect (REE):	Negligible - Control Room
Radiation Effect (RE):	Negligible - Control Room
Seismic Effect (SE):	Negligible - Control Room
Steam Pressure/Temperature Effect (SPT):	NA
Post DBE Operation (PDB):	NA
Assigned Sigma Value:	2

NA denotes information that was not available from Vendor Manual.

5.18 VOLTAGE REGULATOR, Control Room

Component ID:	**1SEXPS- See Table on Page 12**
Manufacturer/Model No.:	GE / 136B2772AA
Quality Classification:	Q
Accident Service:	Required
Seismic Category:	I
Excitation:	NA
Tech Spec Requirement:	No
Range Limits:	NA
Calibrated Range:	NA
Input:	- 20 to + 20 VDC
Span:	30 VDC
Output Signal:	-15 TO 15 VDC
Calibration Period:	184 days
Baseline Accuracy (VA):	NA
Deadband (DB):	NA
Drift (VD):	NA
Temperature Affect (ATE):	NA
Humidity Effect (HE):	Negligible - Control Room
Power Supply Effect (PSE):	NA
RFI/EMI Effect (REE):	Negligible - Control Room
Radiation Effect (RE):	Negligible - Control Room
Seismic Effect (SE):	Negligible - Control Room
Steam Pressure/Temperature Effect (SPT):	NA
Post DBE Operation (PDB):	NA
Assigned Sigma Value:	2

NA denotes information that was not available from Vendor Manual.

6.0 ASSUMPTIONS

6.1 POWER SUPPLIES

Device accuracies for power supplies (XPS), voltage regulators (XVS), and meter indicators (XI) are not available from manufacturer. Six month interval testing for these items was established to ensure that the cal/recal tolerances were accurate.

6.2 Drift

In cases where the Vendor does not provide any performance effects for drift, the assumption will be made that drift is equal to reference accuracy of the instrument. This is in lieu of Vendor specifications and the availability of adequate as-found/as-left calibration data.

6.3 Plant Specific Analyzed Drift

Attachment 4 performed a plant specific analyzed drift based on the as-found/as-left calibration data. This information will be compared with the vendor specified drift in section 5.1 and Attachment 2 to ensure that the actual performance of the plant installed components are reasonable.

7.0 UNCERTAINTIES

Although they are part of the HCGS design configuration and Tech Spec, the APRM and RBM flow baised setpoints are not credited in any HCGS safety licensing analyses. Therefore, this calculation will only evaluate nominal trip setpoint (NTSP) and allowable value (AV).

Total Loop Allowance (TLA) will be based on the specifications as stated by GE, not individual uncertainties of the system as is typical. For the purpose of this calculation, only the drift value will be applied for the margin between an individual setpoint and allowable values presented in this calculation. This method is endorsed by GE Design Specification Data Sheet 22A1473AB, Neutron Monitoring System, Revision 12 (Reference 3.3.3). Section 4.6: Setpoint Margins and Section 4.6.2 which stated "The scram trip and rod withdrawal block nominal setpoint shall be determined by allowing adequate margin for design instrument drift allowance from their allowable values". This recommendation is consistent with the method of determining AVs as outlined in GE Instrument Setpoint Methodology NEDC-31336, 1986 Section 1.2.4 and 1.2.5 (Reference 3.9.6).

This method was further clarified by GE as documented in Telecon dated 02/04/1994 (Attachment 1). It states "Ed Chu (GENE) stated that the values in table 4 can not be used to calculate a TLA value using SRSS methodology but instead that the value for drift as specified in the table is valid for the loop and include all instrument allowances and are specified for the Tech. Spec. surveillance intervals of the individual trip conditions in the table."

The specification for APRM and RBM from Table 4 of Reference 3.3. are listed in the Attachment 2. They provide the setpoint and instrument allowances recommended by GE.

8.0 SETPOINT CALCULATION

The current HCGS APRM and RBM setpoint requirements and the source of the requirements are listed in the table below:

Table 1: APRM Setpoints

REQUIREMENTS	SETPOINTS	REFERENCE
Neutron Flux Upscale (Rod Block) NTSP	≤ 0.57(W-ΔW) + 53%	Reference 3.9.10
Neutron Flux Upscale (Rod Block) AV	≤ 0.57(W-ΔW) + 56%	Reference 3.9.10
Simulated Thermal Power Upscale Scram NTSP	≤ 0.57(W-ΔW) + 58%	Reference 3.9.10
Simulated Thermal Power Upscale Scram AV	≤ 0.57(W-ΔW) + 61%	Reference 3.9.10
Fixed Flux NTSP	≤ 118%	TS Table 2.2.1-1
Fixed Flux AV	≤ 120%	TS Table 2.2.1-1
Flow Clamp NTSP	≤ 113.5%	TS Table 2.2.1-1
Flow Clamp AV	≤ 115.5%	TS Table 2.2.1-1
Neutron Flux Upscale, Setdown NTSP	≤ 14%	TS Table 2.2.1-1
Neutron Flux Upscale, Setdown AV	≤ 19%	TS Table 2.2.1-1
Neutron Flux Upscale, Startup NTSP	≤ 11%	TS Table 3.3.6-2
Neutron Flux Upscale, Startup AV	≤ 13%	TS Table 3.3.6-2
Downscale NTSP	≥ 4%	TS Table 3.3.6-2
Downscale AV	≥ 3%	TS Table 3.3.6-2
Rod Block Upscale Clamp NTSP	≤ 108%	Reference 3.9.8
Rod Block Upscale Clamp AV	≤ 111%	Reference 3.9.8

9IR1

Table 2: RBM Setpoints

REQUIREMENTS	SETPOINTS	REFEENCE
Upscale Normal NTSP	≤ 0.66(W-ΔW) + 65%	Reference 3.9.8
Upscale Normal AV	≤ 0.66(W-ΔW) + 68%	Reference 3.9.8
High Flow Clamped NTSP	≤ 116%	Reference 3.9.8
High Flow Clamped AV	≤ 119%	Reference 3.9.8
Downscale NTSP	≥ 5%	TS Table 3.3.6-2
Downscale AV	≥ 3%	TS Table 3.3.6-2
Low Power Bypass NTSP	30 %	TS Table 4.3.6-1
Intermediate Transfer Setpoint	≤ 0.66(W-ΔW) + 47%	Reference 3.12
Normal Transfer Setpoint	≤ 0.66(W-ΔW) + 55%	Reference 3.12
Backup Upscale Rod Block Setpoint	≤ 0.66(W-ΔW) + 76%	Reference 3.12
Upscale Low Setpoint	≤ 0.66(W-ΔW) + 49%	Reference 3.12
Upscale Intermediate Setpoint	≤ 0.66(W-ΔW) + 57%	Reference 3.12

8.1 APRM NON-FLOW BIASED SETPOINTS 1SEXRS-Z34A/B/C/D/E/F-C51

8.1.1 APRM Fixed Neutron Flux–Upscale

The requirement in VDC is specified in Attachment 5, Section 5.1.1.

8.1.2 APRM Neutron Flux–Upscale, Setdown

The requirement in VDC is specified in Attachment 5, Section 5.1.2.

8.1.3 APRM Neutron Flux–Upscale, Startup

The requirement in VDC is specified in Attachment 5, Section 5.1.3.

8.1.4 APRM Downscale

The requirement in VDC is specified in Attachment 5, Section 5.1.4.

8.1.5 APRM High Flow Clamped

The requirement in VDC is specified in Attachment 5, Section 5.1.5.

8.1.6 APRM Rod Block, Clamp

The requirement in VDC is specified in Attachment 5, Section 5.1.6.

8.2 APRM FLOW BIASED SETPOINT: SINGLE LOOP RECIRC FLOW 1SEXSH-Z33A/B/C/D/E/F-C51

8.2.1 APRM Neutron Flux Upscale (Rod Block)

The requirement in VDC and % RTP are specified in Attachment 5, Section 5.2.1.

8.2.2 APRM Simulated Thermal Power Upscale Scram

The requirement in VDC and % RTP are specified in Attachment 5, Section 5.2.2.

8.3 APRM FLOW BIASED SETPOINTS: TWO (2) LOOP RECIRC FLOW1SEXSH-Z33A/B/C/D/E/F-C51

8.3.1 APRM Neutron Flux Upscale Alarm (Rod Block)

The requirement in VDC and % RTP are specified in Attachment 5, Section 5.3.1.

8.3.2 APRM Simulated Thermal Power Upscale Scram

The requirement in VDC and % RTP are specified in Attachment 5, Section 5.3.2.

8.4 RBM SETPOINTS AND ALLOWABLE VALUE 1SEXRS-Z36ARB-C51 & 1SEXRS-Z36BRB-C51

8.4.1 RBM Downscale

The requirement in VDC is specified in Attachment 5, Section 5.4.1.

8.4.2 RBM Low Power Bypass = 30%

The requirement in VDC is specified in Attachment 5, Section 5.4.5.

Per DCP 4HE-0367 (modification performed in 1997, but the calculation was never updated): Taking into account the worst case bypass trip point (using a NTSP of 23.75% or 1.90 VDC (Reference 3.10.7, 3.10.8)) for the plant during a shutdown,

Shutdown = NTSP + Recal
= 1.90 VDC + 0.223 VDC
= 2.123 VDC

$$(2.123VDC)\left(\frac{125\%Power}{10VDC}\right) = 26.54\%Power$$

Taking into account the worst case bypass trip point for the plant during a startup,

Startup = NTSP + Recal + Reset Deadband
= 1.90 VDC + 0.223 VDC + 0.246 VDC
= 2.369 VDC

$$(2.369VDC)\left(\frac{125\%Power}{10VDC}\right) = 29.61\%Power$$

Therefore, a NTSP value of 1.90 VDC assures that the Tech Spec Allowable value of 30% Power will not be exceeded.

8.4.3 RBM LPRM Auto Bypass = 3%

The requirement in VDC is specified in Attachment 5, Section 5.4.2.

8.4.4 LPRM LEVEL CARDS Upscale Trip Setpoint = 100 %

The requirement in VDC is specified in Attachment 5, Section 5.4.3.

8.4.5 LPRM LEVEL CARDS Downscale Trip Setpoint = 4 %

The requirement in VDC is specified in Attachment 5, Section 5.4.4.

8.5 RBM FLOW BIASED SETPOINT: SINGLE LOOP RECIRC FLOW 1SEXRS-Z34ARB-C51 & 1SEXRS-Z34BRB-C51

8.5.1 RBM Transfers

The requirement in VDC and % RTP are specified in Attachment 5, Section 5.5.1.

8.5.2 RBM Upscale Rod Block

The requirement in VDC and % RTP are specified in Attachment 5, Section 5.5.2.

8.5.3 RBM Backup Upscale Rod Block

The requirement in VDC and % RTP are specified in Attachment 5, Section 5.5.3.

8.5.4 RBM Clamp

The requirement in VDC and % RTP are specified in Attachment 5, Section 5.5.4.

8.6 RBM FLOW BIASED SETPOINTS: TWO (2) LOOP RECIRC FLOW 1SEXRS-Z34ARB-C51 & 1SEXRS-Z34BRB-C51

8.6.1 RBM Transfers

The requirement in VDC and % RTP are specified in Attachment 5, Section 5.6.1.

8.6.2 RBM Upscale Rod Block

~~The requirement in VDC and % RTP are specified in Attachment 5, Section 5.6.2.~~

8.6.3 RBM Backup Upscale Rod Block

The requirement in VDC and % RTP are specified in Attachment 5, Section 5.6.3.

8.6.4 RBM Clamp

The requirement in VDC and % RTP are specified in Attachment 5, Section 5.6.4.

8.7 APRM COUNT and INOP SETPOINTS

Count

$$\left(\frac{5\%}{125\%} * 10VDC\right) = 0.400VDC(1LPRM)$$

Setpoint for 13 LPRM's in OPERATE

13 x 0.4 VDC = 5.200 VDC

NOTE that this is the minimum requirement for their respective channels.

8.8 M&TE

The procedures in reference 3.10 provide direction for calibrating the APRM and RBM modules. The required M&TE (or equivalent) is a Keithley 197/1978 digital multimeter. The Flow Biased trip reference card modules are calibrated by adjusting FLOW potentiometer and measuring output with DMM and adjusting POWER potentiometer and measuring output with DMM. The non-flow biased cards modules are calibrated by adjusting POWER potentiometer and measuring output with DMM.

The specification for the Keithley DMM in Reference 3.9.7 provides instrument accuracies for M&TE. The value to be measured is 0-10 VDC. The applicable Keithley range is 0-20 VDC. The M&TE accuracy will be determined for both Flow Biased Card Module and Non Flow Biased Card Module outputs.

0-20 VDC Measurements

Keithley DMM

The temperature coefficient is ±0.1 * applicable 1 year accuracy specification (for between 0°-18°C and 28°-50°C)/°C. The accuracy specification for a 0-10 Vdc range is given as ±(0.015% rdg + 3 counts). The resolution is 0.0001 Vdc. The highest ambient temperature (Section 5.1.1) is 90°F or 32.2°C, and the lowest temperature is 60°F or 15.6°C; therefore, the maximum temperature variation is 2.4°C (18 – 15.6).

20 Vdc range

Keithley Accuracy = (0.015%*10 Vdc + 0.0003 Vdc)/10 Vdc
*(1+0.1*2.4)
= ± 0.022% span

$MTE_{DMM,\ 20Vdc}$ = ± 0.022% span (0-20Vdc range)

Flow-Biased Card Module measurements

$MTE_{FB} = \pm (MTE_{DMM}^2 + MTE_{DMM}^2)^{1/2}$

$MTE_{FB} = \pm (0.022^2 + 0.022^2)^{1/2}$

MTE_{FB} = ± 0.031% span

Non Flow-Biased Card Module measurements

$MTE_{NFB} = \pm MTE_{DMM}$

MTE_{NFB} = ± 0.022% span

The above results show that for Flow-Biased Card module measurements, the accuracy is ±0.05% span whereas for the Non Flow-Biased Card module measurements, the accuracy is ±0.036% span. This calculation will use the larger MTE uncertainty of ±0.031% span as a bounding value. Based on Section 7.0, the MTE uncertainty is not being used to calculate the TLA.

8.9 CALIBRATION AND RECALIBRATION TOLERANCES

Certain circuit cards have been assigned conservative CAL/RECAL tolerances for surveillance purposes.

8.9.1 Calculation of Power Supply Uncertainty and Calibration/Recalibration Tolerances

Since the accuracy is not given, assume accuracy = calibration tolerance per Assumption 6.1

Power Supply Calibration Tolerance (Cal)

Cal = VA = ± 0.1 VDC for 5 VDC Power Supply
Cal = VA = ± 0.050 VDC for 20 VDC Power Supply
Cal = VA = ± 2.0 VDC for 100 VDC Power Supply

$$Recal = \pm\sqrt{(Cal)^2 + (VA)^2}$$
$$Recal = \pm\sqrt{(0.1)^2 + (0.1)^2}$$

Recal = ± 0.141 VDC for 5 VDC Power Supply

$$Recal = \pm\sqrt{(Cal)^2 + (VA)^2}$$
$$Recal = \pm\sqrt{(0.05)^2 + (0.05)^2}$$

Recal = ± 0.071 VDC for 20 VDC Power Supply

$$Recal = \pm\sqrt{(Cal)^2 + (VA)^2}$$
$$Recal = \pm\sqrt{(2.0)^2 + (2.0)^2}$$

Recal = ± 2.828 VDC for 100 VDC Power Supply

8.9.2 Calculation of Voltage Regulator Uncertainty and Calibration/Recalibration Tolerances

Since the accuracy is not given, assume accuracy = calibration tolerance
Assumption 6.1

calibration tolerance = VA = ± 0.05 VDC

$$Recal = \pm\sqrt{(Cal)^2 + (VA)^2}$$

$$Recal = \pm\sqrt{(0.05)^2 + (0.05)^2}$$

Recal = ± 0.071 VDC for Voltage Regulator

8.9.3 Calculation of Front Panel Meter M1 Calibration/Recalibration Tolerances

VA = ± 1.0% span @ 10VDC Span = ± 0.1 VDC
Cal = VA = ± 0.1 VDC per Ref. 3.9.1

$$Recal = \pm\sqrt{(Cal)^2 + (VA)^2}$$

$$Recal = \pm\sqrt{(0.1)^2 + (0.1)^2}$$

Recal = ± 0.141 VDC for Indicators

The result of plant specific analyzed drift in Attachment 4 shows 0.987% drift (0.0987 VDC). Cal and Recal recommendations are reasonable.

8.9.4 Calculation of APRM Cards Calibration/Recalibration Tolerances

Output to Rod Block and Recirc Flow Accuracy (VA)
VA = ± 0.08 VDC

APRM Calibration Tolerance (Cal)
Cal = VA = ± 0.08 VDC

$$Recal = \pm\sqrt{(Cal)^2 + (VA)^2}$$

$$Recal = \pm\sqrt{(0.08)^2 + (0.08)^2}$$

Recal = ± 0.113 VDC for Rod Block and Recirc Flow

8.9.5 Calculation of Computer Point Calibration /Recalibration Tolerances

Computer Point Output Accuracy (VA)

VA = ± 0.8% span @160mVDC = ± 0.8% (160mVDC) = ± 1.28 mVDC
Cal = VA = ± 1.28 mVDC

$$Recal = \pm\sqrt{(Cal)^2 + (VA)^2}$$

$$Recal = \pm\sqrt{(1.28)^2 + (1.28)^2}$$

Recal = ± 1.81 mVDC for computer point

8.9.6 Calculation of Computer Point Output to Recorder Calibration /Recalibration Tolerances

VA = ± 0.8% span @ 1.0 VDC Span = ± 0.008 VDC
Cal = VA = ± 0.008 VDC

$$Recal = \pm\sqrt{(Cal)^2 + (VA)^2}$$

$$Recal = \pm\sqrt{(0.008)^2 + (0.008)^2}$$

Recal = ± 0.011 VDC for Recorder

8.9.7 Calculation of APRM Flow Unit Calibration /Recalibration Tolerances

VA = ± 1.0% span @ 10VDC Span = ± 0.1 VDC
Cal = ± 1.0% span @ 10VDC Span = ± 0.1 VDC

$$Recal = \pm\sqrt{(Cal)^2 + (VA)^2}$$

$$Recal = \pm\sqrt{(0.1)^2 + (0.1)^2}$$

Recal = ± 0.141 VDC for APRM Flow Unit

8.9.8 Calculation of APRM Averaging Unit Calibration /Recalibration Tolerances

VA = ± 0.8% span @ 10VDC Span = ± 0.08 VDC
Cal = VA = ± 0.8% span @ 10VDC Span = ± 0.08 VDC per Ref. 3.9.1

$$Recal = \pm\sqrt{(Cal)^2 + (VA)^2}$$

$$Recal = \pm\sqrt{(0.08)^2 + (0.08)^2}$$

Recal = ± 0.113 VDC for APRM Averaging Unit

8.9.9 APRM & RBM Non-Flow Biased Trip Reference Card (1SEXRS-Z34A/B/C/D/E/F-C51) & (1SEXRS-Z36ARB-C51, 1SEXRS-Z36BRB-C51) Calibration /Recalibration Tolerances

VA = ± 2.0% span @ 10VDC Span = ± 0.2 VDC
Cal = VA = ± 2.0% span @ 10VDC Span = ± 0.2 VDC per Ref. 3.9.1

$$Recal = \pm\sqrt{(Cal)^2 + (VA)^2}$$

$$Recal = \pm\sqrt{(0.2)^2 + (0.2)^2}$$

Recal = ± 0.283 VDC for APRM & RBM Non-Flow Biased Trip Reference Cards

The result of plant specific analyzed drift in Attachment 4 shows 0.511% drift (0.0511 VDC). Cal and Recal tolerances are reasonable.

8.9.10 APRM & RBM Flow Biased Trip Reference Card (1SEXSH-Z33A/B/C/D/E/F-C51) & (1SEXRS-Z34ARBC51, 1SEXRS-Z34BRBC51) Calibration /Recalibration Tolerances

VA = ± 1.0% Span @ 10VDC Span = ± 0.1 VDC
Cal = VA = ± 1.0% span @ 10VDC Span = ± 0.1 VDC per Ref. 3.9.1

$$Recal = \pm\sqrt{(Cal)^2 + (VA)^2}$$

$$Recal = \pm\sqrt{(0.1)^2 + (0.1)^2}$$

Recal = ± 0.141 VDC for APRM & RBM Flow Biased Trip Reference Card

The result of plant specific analyzed drift in Attachment 4 shows 0.572% drift (0.0572 VDC). Cal and Recal recommendations are reasonable.

8.9.11 LPRM Level Cards Calibration /Recalibration Tolerances

VA = ± 2.0 % Span @ 10 VDC Span = ± 0.20 VDC
Cal = ± 2.0 % Span @ 10 VDC Span = ± 0.20 VDC

$$Recal = \pm\sqrt{(Cal)^2 + (VA)^2}$$
$$Recal = \pm\sqrt{(0.2)^2 + (0.2)^2}$$
Recal = ± 0.283 VDC

The result of plant specific analyzed drift in Attachment 4 shows 1.397% drift (0.1397 VDC). Cal and Recal recommendations are reasonable.

8.9.12 Bailey Recorder

VA = ± 0.5 % Span @ 10 VDC Span = ± 0.05 VDC
Cal = ± 0.5 % Span @ 10 VDC Span = ± 0.05 VDC

$$Recal = \pm\sqrt{(Cal)^2 + (VA)^2}$$
$$Recal = \pm\sqrt{(0.05)^2 + (0.05)^2}$$
Recal = ± 0.071 VDC

The result of plant specific analyzed drift in Attachment 4 shows 0.497% drift for 25% range and 0.905% for 125% range. Cal and Recal recommendations are reasonable.

8.9.13 Bailey Indicator

VA = ± 0.5 % Span @ 10 VDC Span = ± 0.05 VDC
Cal = ± 0.5 % Span @ 10 VDC Span = ± 0.05 VDC

$$Recal = \pm\sqrt{(Cal)^2 + (VA)^2}$$
$$Recal = \pm\sqrt{(0.05)^2 + (0.05)^2}$$
Recal = ± 0.071 VDC

8.9.14 Bailey Scaler Module

VA = ± 0.52 % Span @ 1 VDC Span = ± 0.0052 VDC
Cal = ± 0.5 % Span @ 1 VDC Span = ± 0.005 VDC

$$\mathrm{Re}cal = \pm\sqrt{(Cal)^2 + (VA)^2}$$

$$\mathrm{Re}cal = \pm\sqrt{(0.0052)^2 + (0.005)^2}$$

Recal = ± 0.0071 VDC

9.0 SUMMARY OF RESULTS

9.1 Margin Analysis

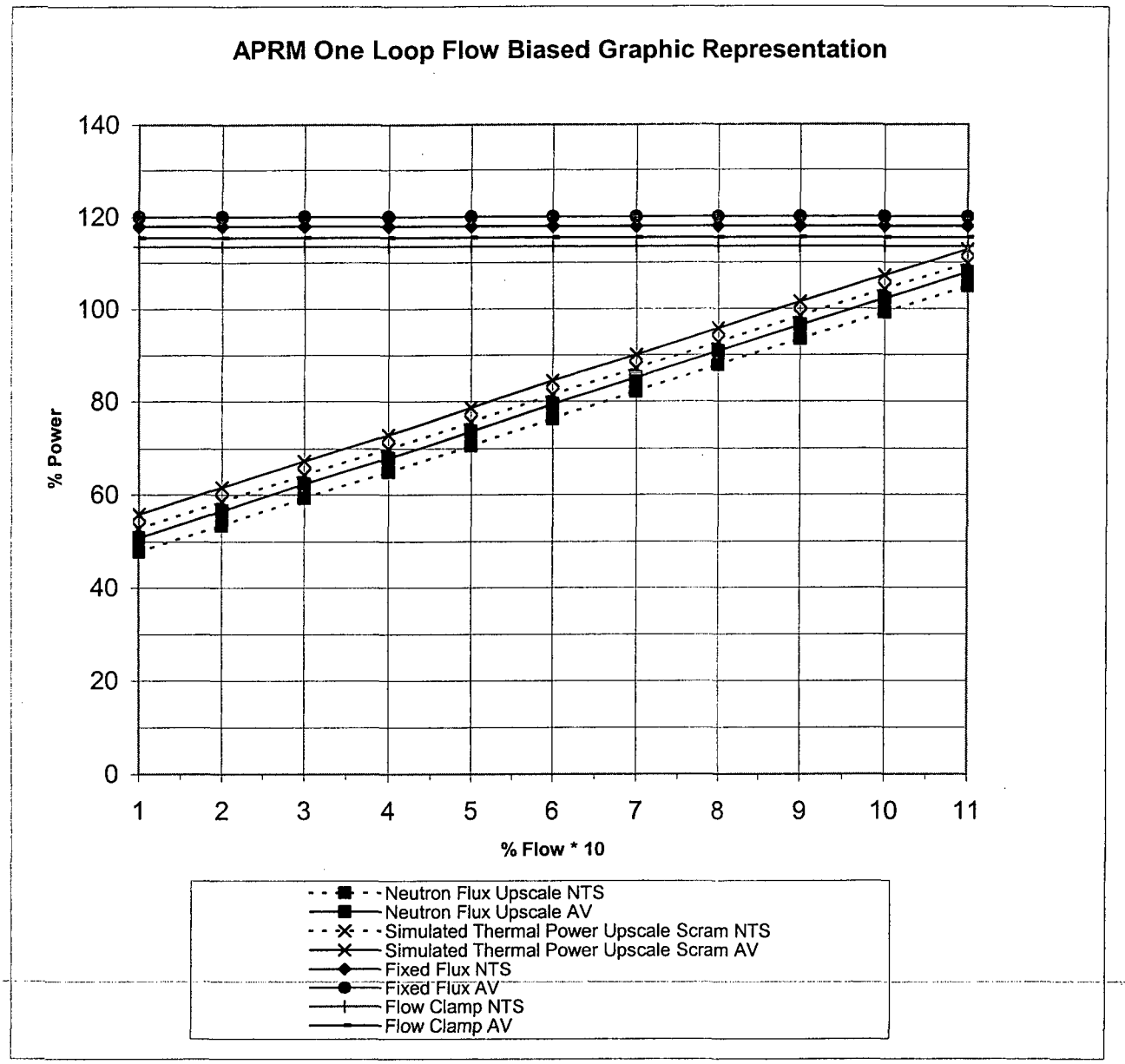
This calculation determines the separation between the new flow-biased APRM and RBM NTSPs and AVs associated with the implementation of EPU. The separations are then compared to the requirements specified in Section 7.0 and Attachment 2 (the drift value will be applied for the margin between an individual setpoint and allowable values presented in this calculation) and ensure that sufficient margin exist between Tech Spec Allowable Value and Nominal Trip Setpoint

The following is a summary of the Tech Spec parameters, Nominal Trip Setpoint, Allowable Value, and available margin:

Parameter	NTSP, % RTP	AV, % RTP	Δ between NTSP/AV	Drift Specified in Att. 2	Margin Adequate exists ?
APRM Neutron Flux Upscale (Rod Block) Flow Biased	0.57(W-ΔW)+53	0.57(W-ΔW)+56	3.0%	3.0%	YES
APRM Simulated Thermal Power Upscale Scram Flow Biased	0.57(W-ΔW)+58	0.57(W-ΔW)+61	3.0%	3.0%	YES
APRM Fixed Flux	118	120	2.0%	2.0%	YES
APRM High Flow Clamped	113.5	115.5	2.0%	2.0%	YES
APRM Neutron Flux Upscale, Setdown	14	19	5.0%	2.0%	YES
APRM Neutron Flux Upscale, Startup	11	13	2.0%	2.0%	YES
APRM Downscale	4	3	1.0%	1.0%	YES
RBM Upscale Normal	0.66(W-ΔW)+65	0.66(W-ΔW)+68	3.0%	3.0%	YES
RBM High Flow Clamped	116	119	3.0%	3.0%	YES
RBM Downscale	5	3	2.0%	2.0%	YES

9IR1

9.2 GRAPHIC PRESENTATION



This chart provides a graphical representation of the relative relationship between the different setpoints and the margin between the AV to NTSP.

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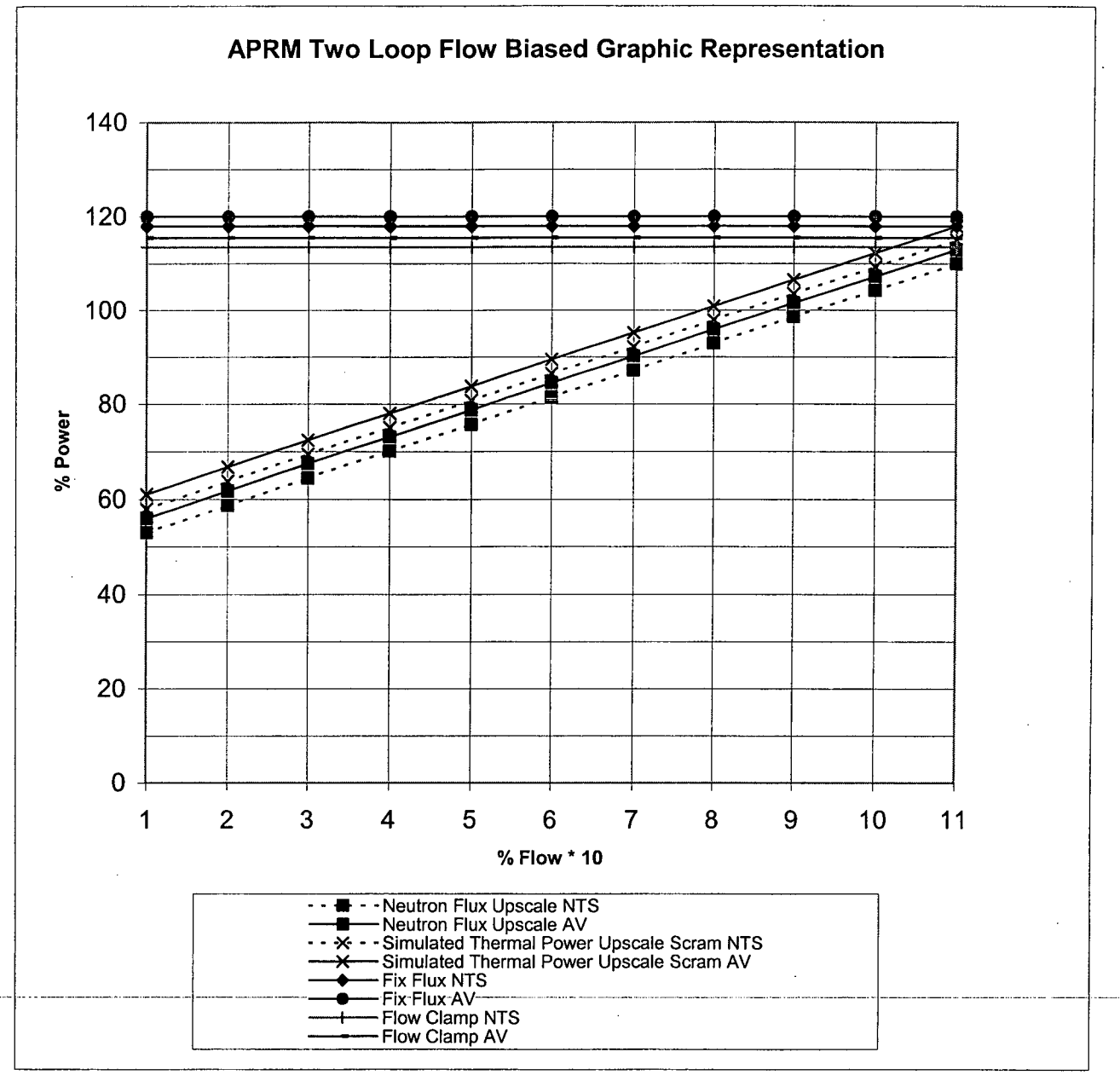
B. Yu	3/10/06	N/A	N/A	A. Shaul	3/10/06



This chart provides a graphical representation of the relative relationship between the different setpoints and the margin between the AV to NTSP.

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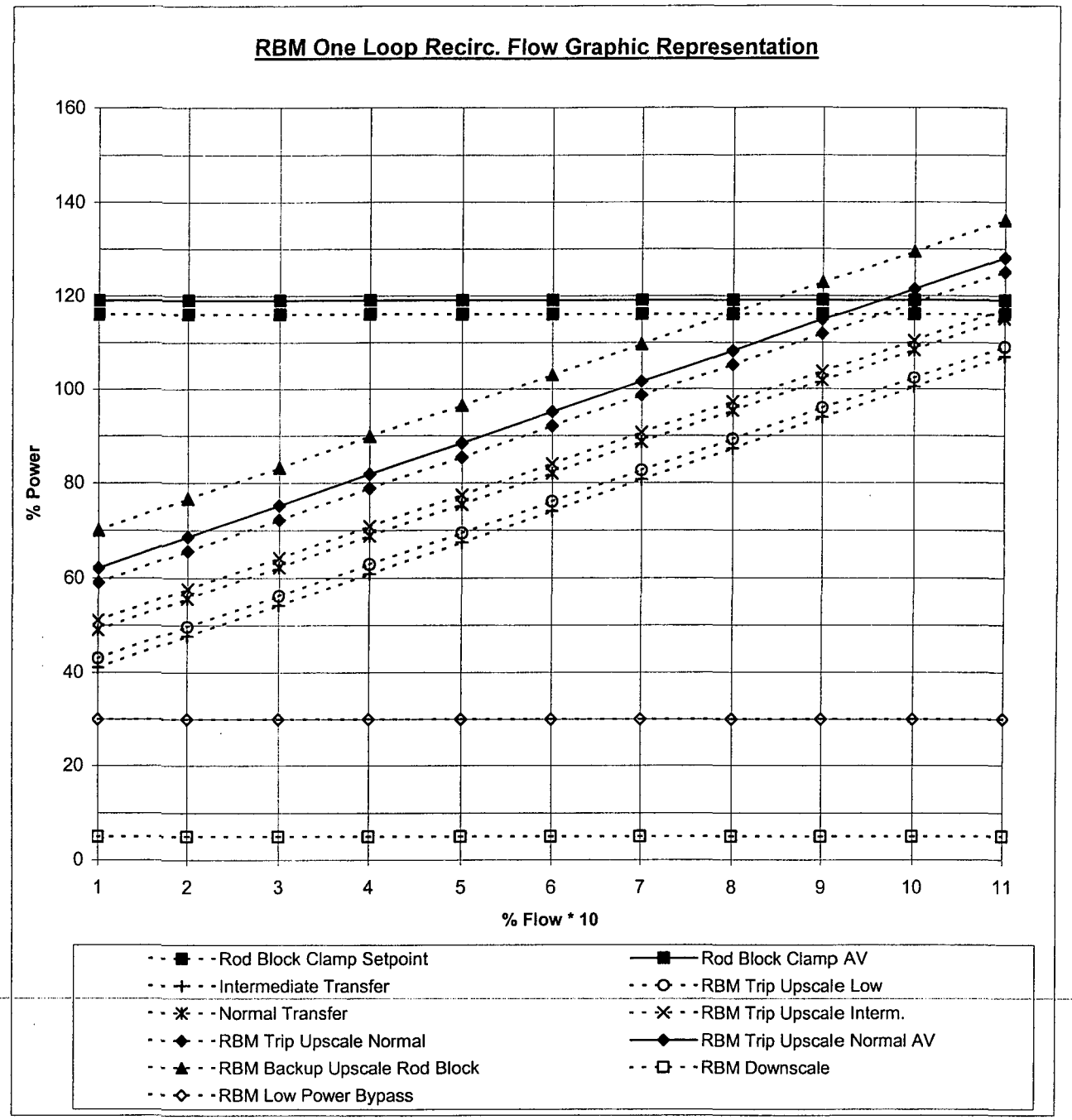
B. Yu	3/10/06	N/A	N/A	A. Shaul	3/10/06



This chart provides a graphical representation of the relative relationship between the different setpoints and the margin between AV to NTSP.

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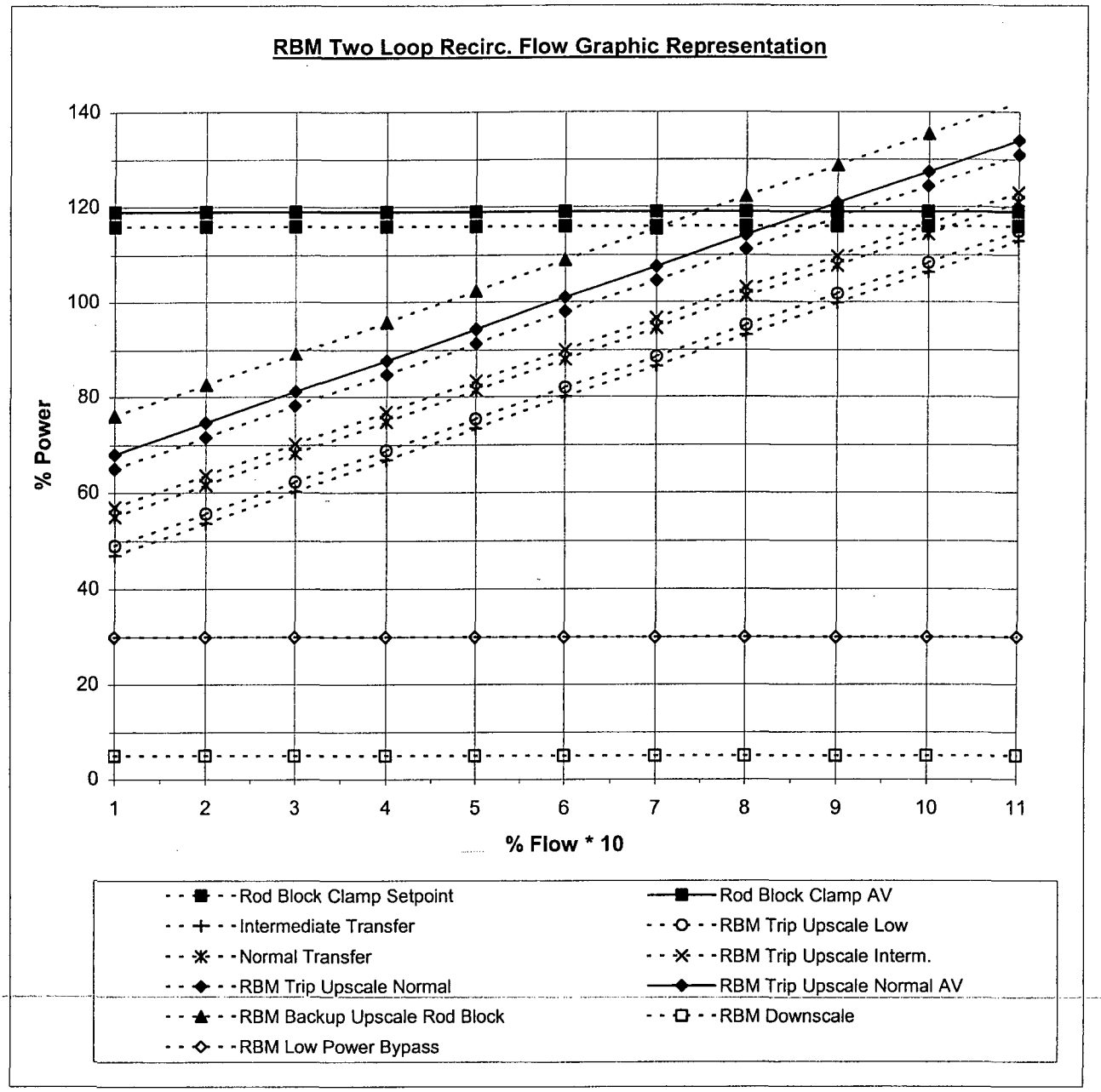


This chart provides a graphical representation of the relative relationship between the different setpoints and the margin between the AV to NTSP.

ORIGINATOR:	DATE:	REVIEWER:	DATE:	VERIFIER:	DATE:
B. Yu	3/10/06	N/A	N/A	A. Shaul	3/10/06

APRM FLOW BIASED SETPOINTS: SINGLE LOOP OPERATION 10% and 60% CORE FLOW

FOR 60% CORE FLOW

	125 %
Simulated Thermal Power Upscale Allow Value	90.1 %
3%	
Simulated Thermal Power Upscale Setpoint	87.1 %
Neutron Flux Upscale Alarm (Rod Block) Allow Value	85.1 %
3%	
Neutron Flux Upscale Alarm (Rod Block) Setpoint	82.1 %

FOR 10% CORE FLOW

Simulated Thermal Power Upscale Allow Value	61.6 %
3%	
Simulated Thermal Power Upscale Setpoint	58.6 %
Neutron Flux Upscale Alarm (Rod Block) Allow Value	56.6 %
3%	
Neutron Flux Upscale Alarm (Rod Block) Setpoint	53.6 %
	40 %

ORIGINATOR:	DATE:	REVIEWER:	DATE:	VERIFIER:	DATE:
B. Yu	3/10/06	N/A	N/A	A. Shaul	3/10/06

APRM FLOW BIASED SETPOINTS: TWO LOOP (2) OPERATION 0%, 30% and 70% CORE FLOW

FOR 70% CORE FLOW

Neutron Flux Upscale Alarm (Rod Block) Allow Value

Neutron Flux Upscale Alarm (Rod Block) Setpoint

FOR 30% CORE FLOW

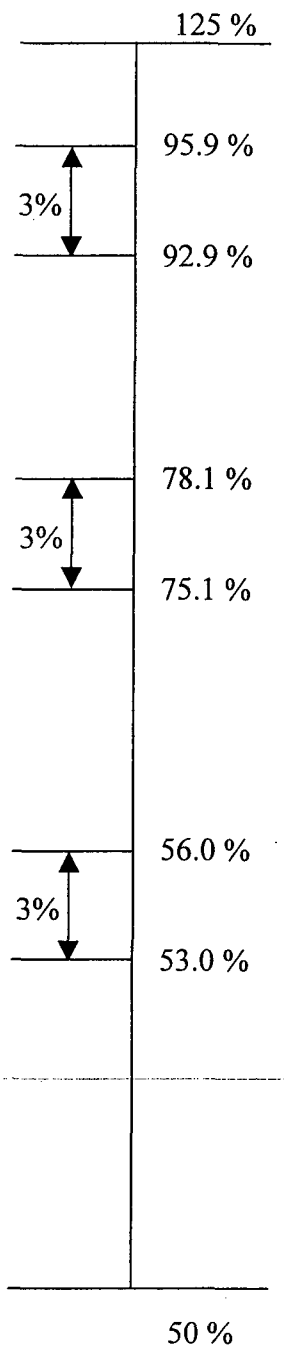
Simulated Thermal Power Upscale Allow Value

Simulated Thermal Power Upscale Setpoint

FOR 0% CORE FLOW

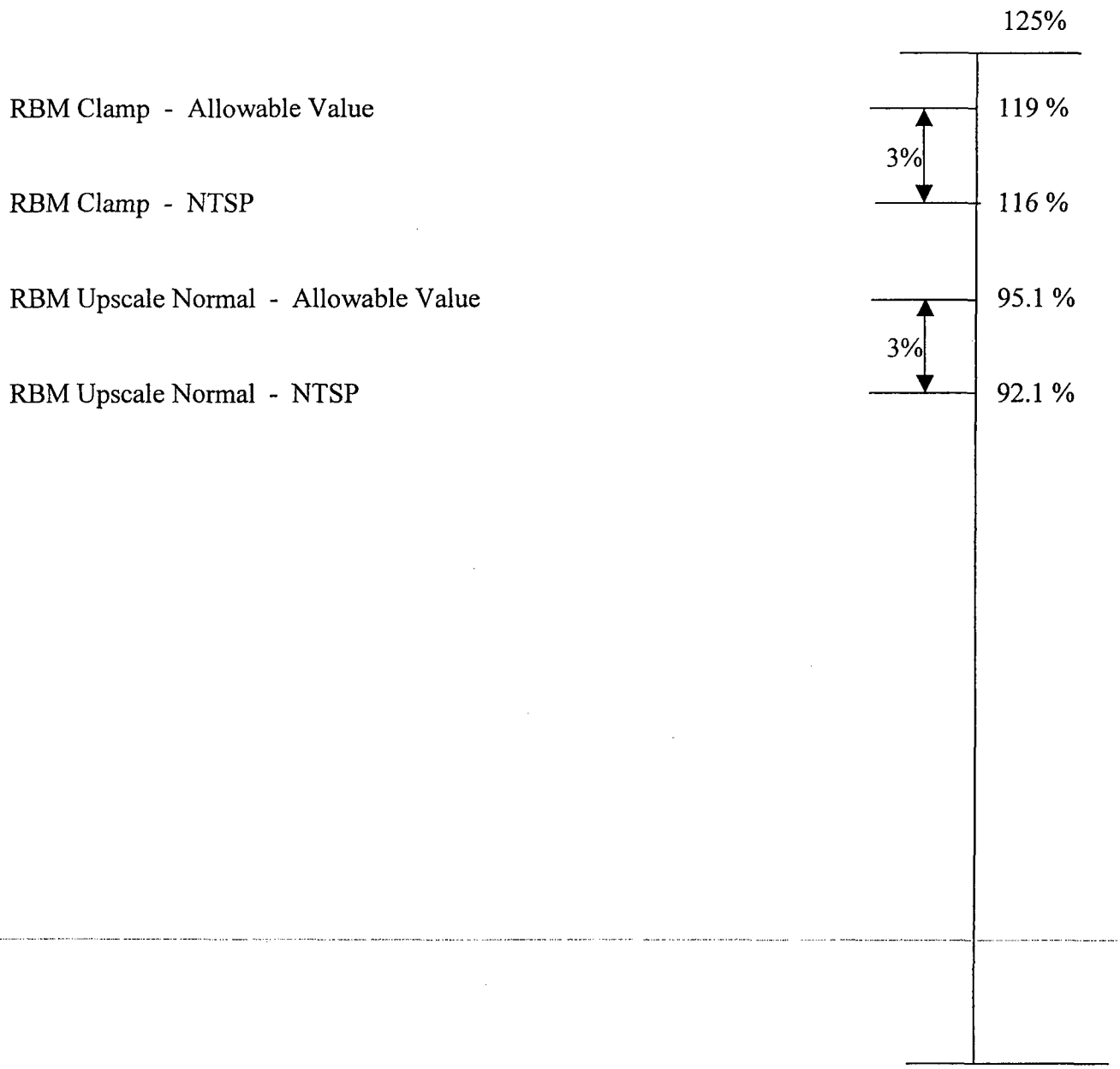
Neutron Flux Upscale Alarm (Rod Block) Allow Value

Neutron Flux Upscale Alarm (Rod Block) Setpoint



ORIGINATOR:	DATE:	REVIEWER:	DATE:	VERIFIER:	DATE:
B. Yu	3/10/06	N/A	N/A	A. Shaul	3/10/06

RBM FLOW BIASED SETPOINTS: SINGLE LOOP RECIRC FLOW @ 50 % FLOW



ORIGINATOR:	DATE:	REVIEWER:	DATE:	VERIFIER:	DATE:
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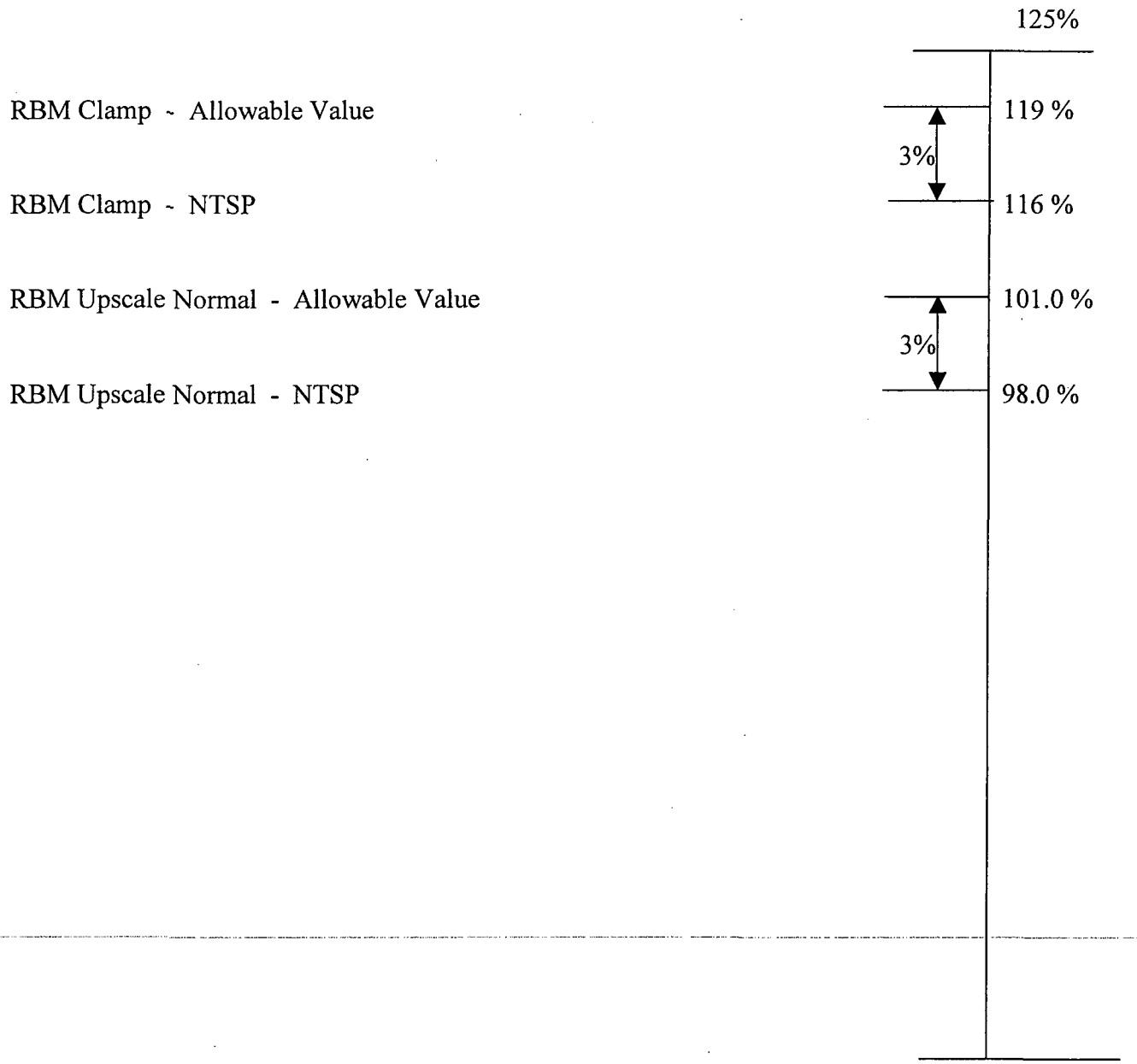
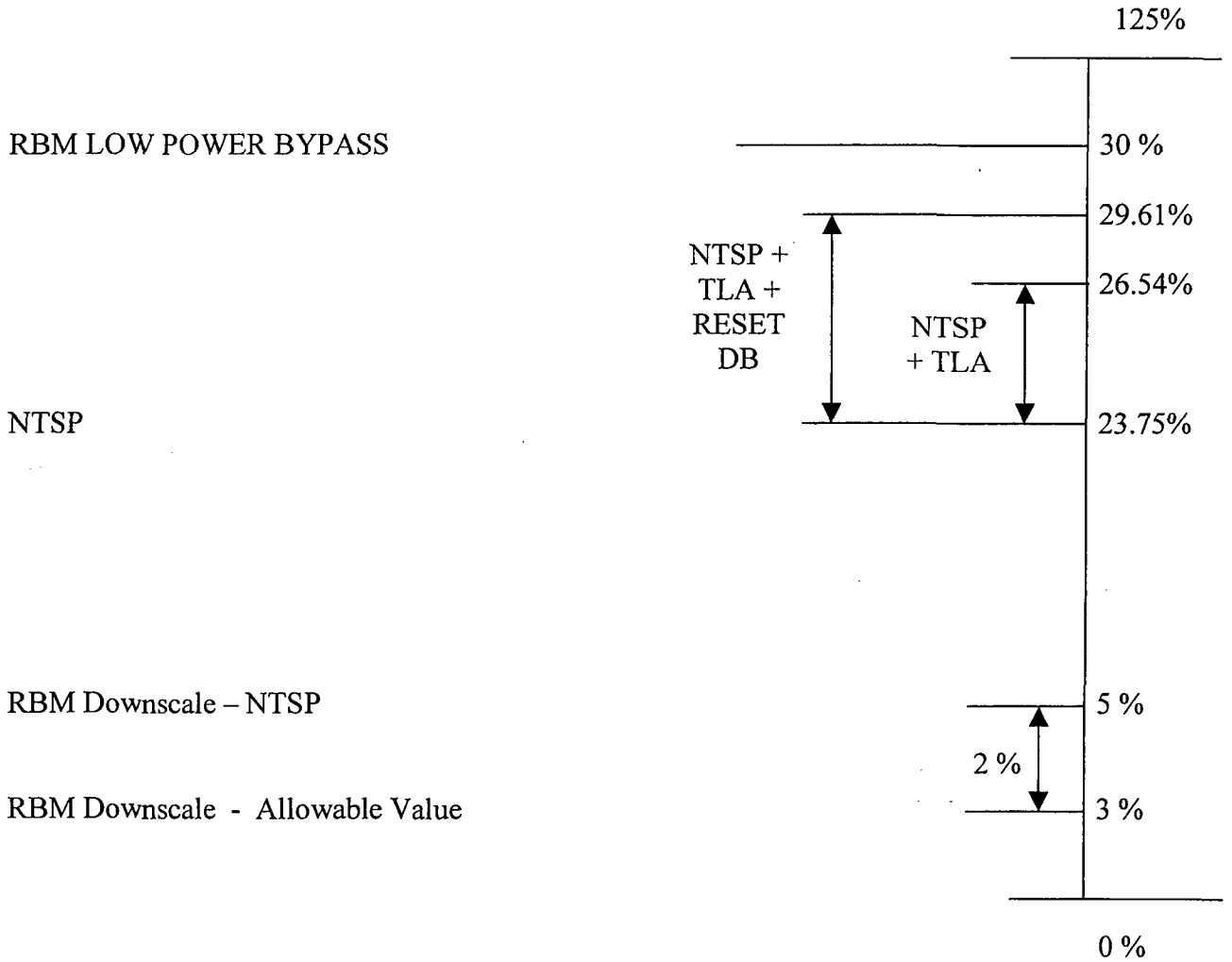
RBM FLOW BIASED SETPOINTS: TWO (2) LOOP RECIRC FLOW @ 50 % FLOW



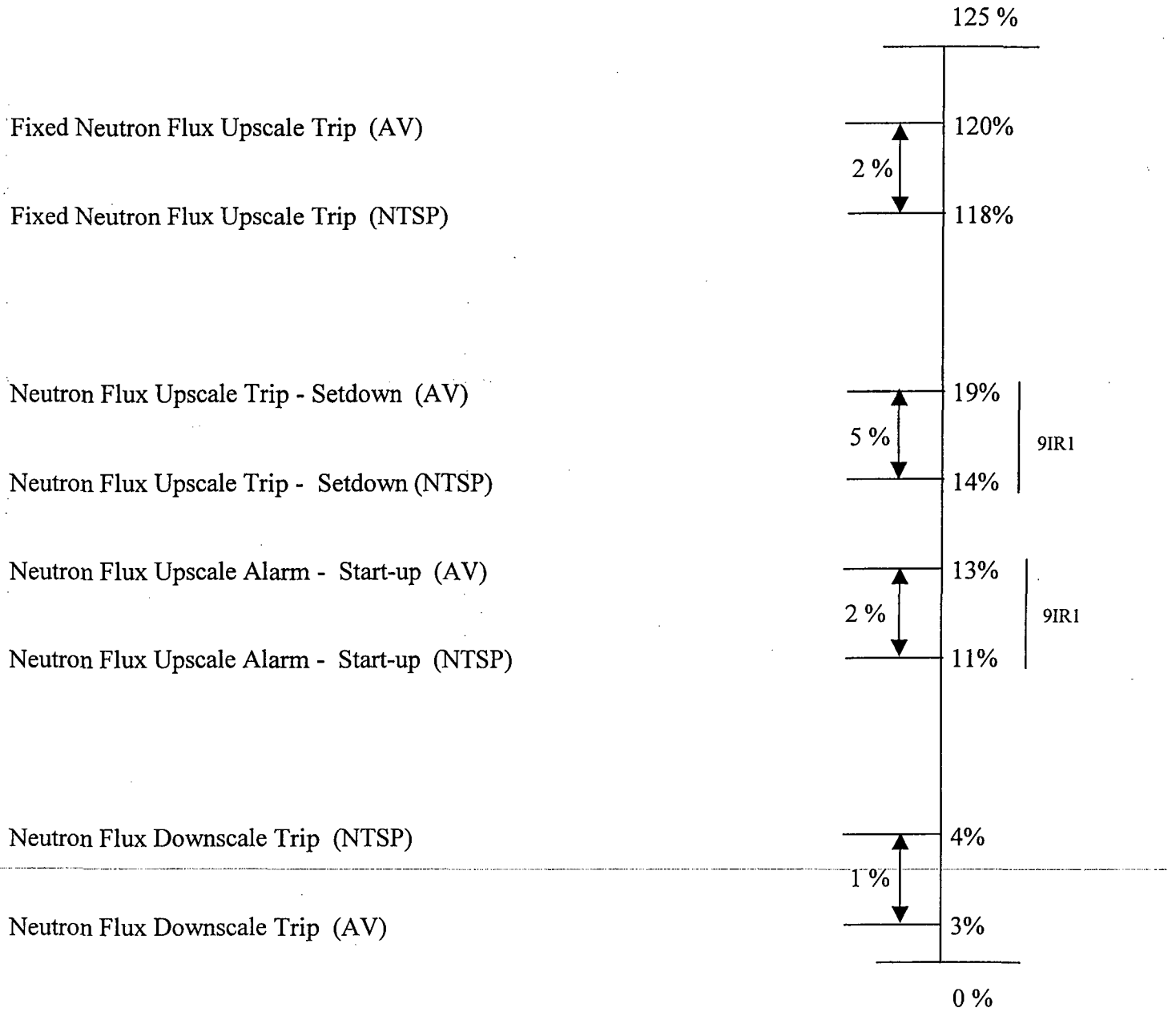
ORIGINATOR:	DATE:	REVIEWER:	DATE:	VERIFIER:	DATE:
B. Yu	3/10/06	N/A	N/A	A. Shaul	3/10/06

RBM SETPOINTS



ORIGINATOR:	DATE:	REVIEWER:	DATE:	VERIFIER:	DATE:
B. Yu	3/10/06	N/A	N/A	A. Shaul	3/10/06

APRM NON FLOW BIASED SETPOINTS



9.3 PROCEDURE CHANGES:

9.3.1 Changes As A Result Of Revisions 9IR0 and 9IR1 to this calculation 9IR1

9.3.1.1 HC.IC-CC.SE-0013(Q), HC.IC-CC.SE-0014(Q), HC.IC-CC.SE-0015(Q), HC.IC-CC.SE-0016(Q), HC.IC-CC.SE-0017(Q), HC.IC-CC.SE-0018(Q)
APRM Channel Calibration for Two Recirc. Loops

Tables 3.0, 4.0, and 8.0 will be revised in accordance with the values presented in Attachment 5 Section 6.2 and 6.3.

9.3.1.2 HC.IC-FT.SE-0028(Q), HC.IC-FT.SE-0029(Q), HC.IC-FT.SE-0030(Q), HC.IC-FT.SE-0031(Q), HC.IC-FT.SE-0032(Q), HC.IC-FT.SE-0033(Q)
APRM Functional Test for Single Recirc. Loop and Two Recirc. Loops

Tables 3.0, 3.1, 5.0, and 5.1 will be revised in accordance with the values presented in Attachment 5 Section 6.2 and 6.3.

9.4 INPUT / OUTPUT DOCUMENTS

There are no input or output calculations associated with this calculation.

10.0 ATTACHMENTS

Attachment #1: Teleconference Memorandum with GE (1 page)
Attachment #2: PN0-C51-4010-0009(1), GE Design Spec Data Sheet for Neutron Monitoring System, selected pages (4 pages)
Attachment #3: Teleconference with Frank Safin, Nuclear Fuel, basis for RBM setpoints (1 page)
Attachment #4: Plant Specific Analyzed Drift (70 pages)
Attachment #5: APRM and RBM Setpoint Calculation (13 pages)

PSEG CALCULATION CONTINUATION SHEET	TITLE	ID NO. SC-SE-0002-2	SHEET 1 OF 1
	ORIGINATOR JJM DATE 2/4/94	REFERENCE Attachment #1	
	PEER REVIEW DATE		

14.0

Teleconference

A telecon was conducted on 2/4/94 between Clive Atkinson and John Materazo of PSE+G with Ed Chu and Mike Farshon of General Electric to discuss G.E. Design Spec Data Sheet PNO-C51-4010-9(1) (22A1473AB G.E. No.) table 4 APRM SYSTEM TRIPS. PSE+G stated that using the Instrument Allowances for Accuracy, Calibration, and Drift as listed in table 4 to calculate the Total Loop Allowance (TLA) by the square root sum of the squares (SRSS) methodology resulted in a negative margin between the Setpoint and Allowable Values (AV's). Ed Chu stated that the values in table 4 cannot be used to calculate a TLA value using the SRSS methodology, but instead that the values for Drift as specified in the table are valid for the loop and include all Instrument Allowances and are specified for the Tech. Spec. Surveillance intervals of the individual Trip Conditions in the table.

5

NUCLEAR ENERGY BUSINESS OPERATIONS — GENERAL ELECTRIC

22A1473AB SH NO. 1
REV 12

REVISION STATUS SHEET

DOCUMENT TITLE NEUTRON MONITORING SYSTEM

LEGEND OR DESCRIPTION OF GROUPS

TYPE DESIGN SPEC DATA SHEET

FMF N/A

MPL ITEM NO. C51-4010

| - DENOTES CHANGE

REVISIONS — C

11	M MONTOYA 1/27/84	FMI	RETYPED WITH GENERAL DOCUMENT CHANGE PER NH10931 CHK BY: M TOBECK EM CHU
12	K WONG 22 MAY 1985	FMI	CHANGES PER ECN NH20980 CHK BY: R. Silva R SILVA

HOPE CREEK KT1
C51-4010
PT/GRP
DWG 22A1473AB

PR				
046EC				
023CG				

PRINTS TO

MADE BY	APPROVALS		DEPT	LOCATION
BL SMITH	HW PIELAGE	7/7/69	NHBO	SAN JOSE
CHKD BY	AE ISSUED			
NA	FM IKEMOTO	3/20/70	CONT ON SHEET 2	SH NO. 1

P-942-JA

NEO 807A (REV. 10/81)

EISR

4.6.1.c (Continued)

requirement for the combined accuracies of all equipment selected to calibrate the actual monitoring and trip devices of an instrument channel and also includes allowances for inaccuracies of the calibration procedures. This requirement does not include the combined accuracies of the individual channel instruments that are actually used to monitor the process variable and provide the channel trip function.

d. Channel Instrument Drift: The change in the value of the process variable, at which the trip action will actually occur, between the time the nominal trip setpoint is calibrated and a subsequent surveillance test, due to all causes, as measured in terms of instrumentation or process units. The value of the process variable at which the trip action will actually occur at the time of calibration is taken to be the intended nominal trip setpoint value.

e. Analytical Limit: The value of the sensed process variable at or prior to which a desired action is to be initiated to prevent the process variable or other affected variables from reaching the associated design safety limits.

f. Technical Specification Limit (Allowable Value): The limit prescribed as a license condition on an important process variable.

g. Nominal Trip Setpoint: The intended calibration point at which a trip action is to be set to operate, commonly the center of an acceptable range of trip operation.

4.6.2 The scram trip and rod withdrawal block nominal setpoints shall be determined by allowing adequate margin for design instrument drift allowance from their allowable values (ie, technical specification limit). The allowable values are set at a distance equal to the instrument accuracy and calibration uncertainty allowances from their analytic limits or design bases. All trip conditions for SRM, IRM, APRM, RBM, Flow Unit and LPRM are listed in Tables 2, 3, 4, 5, 6, and 7, respectively.

4.7 Redundant Reactivity Control System Requirements (RRCS)

4.7.1 Local Power Range Monitoring. The detectors, cables and connectors shall be designed to remain accurately functional for drywell temperatures up to 330°F and 100 percent relative humidity.

TABLE 4 APRM SYSTEM TRIPS[6]

MPL C51-K605				Instrument Allowances[8]			
Condition	Nominal Setpoint	Allowable Value	Unit	Accuracy	Calibration	Drift	
Neutron Flux Upscale Trip	118	120	%	0.2	1.0	2.0	
Simulated Thermal Power Upscale	0.66W+51	0.66W+54	%	2.0	2.0	3.0	*
	(113.5% max)	(115.5% max)	%	0.2	1.0	2.0	**
Neutron Flux Upscale Trip (Not in Run Mode)	15	20	%	2.0	2.0	2.0	
Neutron Flux Upscale Alarm	0.66W+42	0.66W+45	%	2.0	2.0	3.0	
Neutron Flux Upscale Alarm (Not in Run Mode)	12	14	%	2.0	2.0	2.0	
Neutron Flux Downscale	4	3 5 (ATWS)	%	2.0 (0.2)	2.0 (1.0)	1.0 (1.0)	
System Inoperative	N/A	N/A	N/A	N/A	N/A	N/A	
Alarm Bypassed	N/A	N/A	N/A	N/A	N/A	N/A	

* FLow bias region
** Clipped region only

TABLE 5 RBM SYSTEM TRIPS[3]

MPL C51-K605				Instrument Allowances[8]		
Condition	Nominal Setpoint	Allowable Value	Unit	Accuracy	Calibration	Drift
Upscale (Normal)	0.66W+40	0.66W+43	%	2.0	2.0	3.0
Upscale (Interm)	0.66W+32	0.66W+35	%	2.0	2.0	3.0
Upscale (Low)	0.66W+24	0.66W+27	%	2.0	2.0	3.0
Downscale	5	3	%	2.0	2.0	2.0
Inoperative	N/A	N/A	N/A	N/A	N/A	N/A
Bypass	N/A	N/A	N/A	N/A	N/A	N/A
Low Power Bypass	30	N/A	%	N/A	N/A	N/A
LPRM Auto Bypass	3	N/A	%	N/A	N/A	N/A

ATTACHMENT 3

Teleconference Memorandum

From: Brian Yu, HCGS Projects

To: Frank Safin, HCGS Nuclear Fuel

Subject: Basis for Flow-Biased RBM setpoints

Date: September 08, 2004

Brian asked Frank to provide the basis for the following Flow-Biased RBM setpoints:

- Intermediate Transfer Setpoint $\leq 0.66(W-\Delta W) + 22\%$
- Normal Transfer Setpoint $\leq 0.66(W-\Delta W) + 30\%$
- Backup Upscale Rod Block Setpoint $\leq 0.66(W-\Delta W) + 51\%$

Frank provided the following basis:

The trip setpoint for the RBM consists of 3 sets of flow-biased setpoints. The lowest setpoint is Intermediate Transfer Setpoint. When the corrected localized average power is within 2% for the setpoint, an indication notifies the operator who **can** (not have to) switch the trip to the intermediate range ($0.66(W-\Delta W) + 22\%$). Within 2% of the intermediate setpoints, the operator has an **option** of setting up the trip to the normal transfer range ($0.66(W-\Delta W) + 30\%$). The Tech Spec specified upscale normal trip is provided at $0.66(W-\Delta W) + 40\%$.

Only the intermediate transfer and normal transfer setpoints can be set up or bypassed when the range value is within 2% of the setpoint value. The intermediate transfer and normal transfer setpoints were instituted as a slowdown measure to protect against the fuel failures and were determined based on the operating experience.

The backup upscale rod block setpoint ($\leq 0.66(W-\Delta W) + 51\%$) was established above the Tech Spec specified upscale normal trip ($0.66(W-\Delta W) + 40\%$ to further ensure that the fuel failures do not occur. This setpoint was determined based on the operating experience.

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

SUMMARY

Description		% Drift			Page		
Table 1B	UPSCALE ALARM (SETDOWN HI)	0.511%			2		
Table 2B	NEUTRON TRIP(SETDOWN HI HI)	0.511%		**#1, pg 5**	3		
Table 3B	UPSCALE THERMAL ALARM (0% FLOW)	0.511%			4		
Table 4B	UPSCALE THERMAL ALARM (100% FLOW)	**0.572%**			6		
Table 5B	NEUTRON TRIP (RUN HI HI)	**0.572%**		**#2, pg 9**	7		
Table 6B	UPSCALE THERM TRIP (HIGH FLOW CLAMPED)	**0.572%**			8		
Table 7B	UPSCALE THERMAL TRIP TIME CONSTANT	**7.165%**			10		
Table 8B	UPSCALE THERMAL TRIP (30% FLOW)	**0.572%**		**#2, pg 9**	9		
Table 9B	DOWNSCALE TRIP	0.511%		**#1, pg 5**	5		
Table 10B	COUNT and INOP TRIP	0.665%			11		
Table 15	APRM DC AMPLIFIER	0.045%			12		
		0 Volts	**5 Volts**	**10 Volts**			
Table 16	FRONT PANEL METER M1	0.440%	0.583%	0.987%	13	15	17
		Upscale/Downscale					
Table 17A	LPRM CARD(s)				18	19	
Table 17B	LPRM CARD(s)				20	21	
Table 17C	LPRM CARD(s)				22	23	
Table 17D	LPRM CARD(s)				24	25	
Table 17E	LPRM CARD(s)				26	27	
Table 17F	LPRM CARD(s)				28	29	
Table 17G	LPRM CARD(s)				30	31	
Table 17H	LPRM CARD(s)				32	33	
Table 17I	LPRM CARD(s)				34	35	
Table 17J	LPRM CARD(s)				36	37	
Table 17K	LPRM CARD(s)				38	39	
Table 17L	LPRM CARD(s)	**1.397%**		**#3, pg 60**	40	41	
Table 17M	LPRM CARD(s)				42	43	
Table 17N	LPRM CARD(s)				44	45	
Table 17P	LPRM CARD(s)				46	47	
Table 17Q	LPRM CARD(s)				48	49	
Table 17R	LPRM CARD(s)				50	51	
Table 17S	LPRM CARD(s)				52	53	
Table 17T	LPRM CARD(s)				54	55	
Table 17U	LPRM CARD(s)				56	57	
Table 17V	LPRM CARD(s)				58	59	
Table 17W	LPRM CARD(s)				60	61	
Table 18A	APRM FLUX LEVEL	0.813%	3.815%		62	63	
Table 18B	APRM POWER	0.206%	0.264%		64	65	
		75%	**108%**				
Table 18C	COMPUTER POINT ALARM	0.952%	0.404%		66	67	
		25% inc	**125%**	**25% dec**			
Table 19	RECORDER	0.379%	0.905%	0.497%	68	69	70

#1: Tables 1B, 2B, 3B, and 9B combined statistically as one table for Flow Control Trip Reference Cards.
#2: Tables 4B, 5B, 6B, and 8B combined statistically as one table for Non Flow Trip Reference Cards.
#3: Tables 17A-17W combined statistically as one table for LRRM Cards.

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 1B UPSCALE ALARM (SETDOWN HI)

	Description	Date	As Found	As Left	Delta	Delta % span	1st Outlier
Tbl 1B	A	7/20/2004	0.905	0.905	-0.001	-0.010%	-0.010%
	A	8/23/2003	0.906	0.906	0.052	0.520%	0.520%
	A	5/29/2003	0.854	0.854	-0.066	-0.660%	-0.660%
	A	12/10/2002	0.920	0.920	0.011	0.110%	0.110%
	A	7/2/2002	0.909	0.909	-0.007	-0.070%	-0.070%
	A	1/8/2002	0.916	0.916	0.012	0.120%	0.120%
	A	7/30/2001	0.904	0.904			
Tbl 1B	B	1/28/2004	0.918	0.918	0.009	0.090%	0.090%
	B	7/15/2003	0.909	0.909	0.005	0.050%	0.050%
	B	1/21/2003	0.904	0.904	-0.010	-0.100%	-0.100%
	B	8/5/2002	0.914	0.914	0.006	0.060%	0.060%
	B	3/2/2002	0.908	0.908	0.084	0.840%	0.840%
	B	9/7/2001	0.824	0.824	-0.085	-0.850%	-0.850%
	B	3/24/2001	0.909	0.909			
Tbl 1B	C	1/15/2004	0.932	0.932	-0.001	-0.010%	-0.010%
	C	8/2/2003	0.933	0.933	0.021	0.210%	0.210%
	C	2/9/2003	0.912	0.912	-0.019	-0.190%	-0.190%
	C	8/30/2002	0.931	0.931	0.011	0.110%	0.110%
	C	3/13/2002	0.920	0.920	-0.002	-0.020%	-0.020%
	C	9/23/2001	0.922	0.922	-0.003	-0.030%	-0.030%
	C	4/8/2001	0.925	0.925			
Tbl 1B	D	1/1/2004	0.939	0.939	-0.012	-0.120%	-0.120%
	D	6/20/2003	0.951	0.951	0.023	0.230%	0.230%
	D	12/31/2002	0.928	0.928	0.068	0.680%	0.680%
	D	7/13/2002	0.860	0.860	-0.065	-0.650%	-0.650%
	D	1/29/2002	0.925	0.925	-0.011	-0.110%	-0.110%
	D	8/17/2001	0.936	0.936	0.024	0.240%	0.240%
	D	2/25/2001	0.912	0.912			
Tbl 1B	E	2/9/2004	0.909	0.909	-0.003	-0.030%	-0.030%
	E	8/19/2003	0.912	0.912	0.013	0.130%	0.130%
	E	5/27/2003	0.899	0.899	0.007	0.070%	0.070%
	E	2/4/2003	0.892	0.892	-0.007	-0.070%	-0.070%
	E	1/10/2002	0.899	0.899	0.012	0.120%	0.120%
	E	7/30/2001	0.887	0.887			
Tbl 1B	F	1/29/2004	0.930	0.930	-0.010	-0.100%	-0.100%
	F	7/7/2003	0.940	0.940	-0.015	-0.150%	-0.150%
	F	1/24/2003	0.955	0.955	0.005	0.050%	0.050%
	F	8/10/2002	0.950	0.950	-0.003	-0.030%	-0.030%
	F	2/12/2002	0.953	0.953	0.004	0.040%	0.040%
	F	9/11/2001	0.949	0.949	-0.003	-0.030%	-0.030%
	F	3/24/2001	0.952	0.952			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 2B NEUTRON TRIP(SETDOWN HI HI)

	Description	Date	As Found	As Left	Delta	Delta % span	1st Outlier
Tbl 2B	A	7/20/2004	1.164	1.164	-0.005	-0.050%	-0.050%
	A	8/23/2003	1.169	1.169	0.010	0.100%	0.100%
	A	5/29/2003	1.159	1.159	-0.012	-0.120%	-0.120%
	A	12/10/2002	1.171	1.171	0.015	0.150%	0.150%
	A	7/2/2002	1.156	1.156	-0.003	-0.030%	-0.030%
	A	1/8/2002	1.159	1.159	-0.002	-0.020%	-0.020%
	A	7/30/2001	1.161	1.161			
Tbl 2B	B	1/28/2004	1.140	1.140	0.014	0.140%	0.140%
	B	7/15/2003	1.129	1.126	-0.004	-0.040%	-0.040%
	B	1/21/2003	1.133	1.133	-0.013	-0.130%	-0.130%
	B	8/5/2002	1.146	1.146	0.006	0.060%	0.060%
	B	3/2/2002	1.140	1.140	0.015	0.150%	0.150%
	B	9/7/2001	1.125	1.125	-0.004	-0.040%	-0.040%
	B	3/24/2001	1.129	1.129			
Tbl 2B	C	1/15/2004	1.159	1.159	0.042	0.420%	0.420%
	C	8/2/2003	1.117	1.117	0.017	0.170%	0.170%
	C	2/9/2003	1.100	1.100	-0.048	-0.480%	-0.480%
	C	8/30/2002	1.148	1.148	-0.008	-0.080%	-0.080%
	C	3/13/2002	1.156	1.156	-0.003	-0.030%	-0.030%
	C	9/23/2001	1.159	1.159	0.005	0.050%	0.050%
	C	4/8/2001	1.154	1.154			
Tbl 2B	D	1/1/2004	1.129	1.129	0.012	0.120%	0.120%
	D	6/20/2003	1.117	1.117	0.003	0.030%	0.030%
	D	12/31/2002	1.114	1.114	-0.006	-0.060%	-0.060%
	D	7/13/2002	1.120	1.120	-0.006	-0.060%	-0.060%
	D	1/29/2002	1.126	1.126	0.011	0.110%	0.110%
	D	8/17/2001	1.115	1.115	-0.015	-0.150%	-0.150%
	D	2/25/2001	1.130	1.130			
Tbl 2B	E	2/9/2004	1.108	1.108	0.007	0.070%	0.070%
	E	8/19/2003	1.101	1.101	0.003	0.030%	0.030%
	E	5/27/2003	1.098	1.098	-0.011	-0.110%	-0.110%
	E	2/4/2003	1.109	1.109	0.001	0.010%	0.010%
	E	1/10/2002	1.108	1.108	-0.001	-0.010%	-0.010%
	E	7/30/2001	1.109	1.109			
Tbl 2B	F	1/29/2004	1.085	1.085	-0.043	-0.430%	-0.430%
	F	7/7/2003	1.128	1.128	0.007	0.070%	0.070%
	F	1/24/2003	1.121	1.121	0.018	0.180%	0.180%
	F	8/10/2002	1.103	1.103	0.002	0.020%	0.020%
	F	2/12/2002	1.101	1.101	-0.017	-0.170%	-0.170%
	F	9/11/2001	1.118	1.118	0.012	0.120%	0.120%
	F	3/24/2001	1.106	1.106			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 3B UPSCALE THERMAL ALARM (0% FLOW)

	Description	Date	As Found	As Left	Delta	Delta % span	1st Outlier
Tbl 3B	A	7/20/2004	3.332	3.332	-0.001	-0.010%	-0.010%
	A	8/23/2003	3.333	3.333	0.003	0.030%	0.030%
	A	5/29/2003	3.330	3.330	-0.005	-0.050%	-0.050%
	A	12/10/2002	3.335	3.335	0.012	0.120%	0.120%
	A	7/2/2002	3.323	3.323	-0.032	-0.320%	-0.320%
	A	1/8/2002	3.355	3.355	0.013	0.130%	0.130%
	A	7/30/2001	3.342	3.342			
Tbl 3B	B	1/28/2004	3.343	3.343	0.017	0.170%	0.170%
	B	7/15/2003	3.326	3.326	-0.010	-0.100%	-0.100%
	B	1/21/2003	3.336	3.336	-0.016	-0.160%	-0.160%
	B	8/5/2002	3.352	3.352	-0.001	-0.010%	-0.010%
	B	3/2/2002	3.353	3.353	0.033	0.330%	0.330%
	B	9/7/2001	3.320	3.320	-0.022	-0.220%	-0.220%
	B	3/24/2001	3.342	3.342			
Tbl 3B	C	1/15/2004	3.340	3.340	0.088	0.880%	0.880%
	C	8/2/2003	3.252	3.252	0.017	0.170%	0.170%
	C	2/9/2003	3.235	3.235	-0.065	-0.650%	-0.650%
	C	8/30/2002	3.300	3.300	-0.055	-0.550%	-0.550%
	C	3/13/2002	3.355	3.355	-0.001	-0.010%	-0.010%
	C	9/23/2001	3.356	3.356	0.001	0.010%	0.010%
	C	4/8/2001	3.355	3.355			
Tbl 3B	D	1/1/2004	3.353	3.353	0.032	0.320%	0.320%
	D	6/20/2003	3.321	3.321	0.008	0.080%	0.080%
	D	12/31/2002	3.313	3.313	0.007	0.070%	0.070%
	D	7/13/2002	3.306	3.306	0.058	0.580%	0.580%
	D	1/29/2002	3.248	3.248	-0.093	-0.930%	-0.930%
	D	8/17/2001	3.341	3.341	0.031	0.310%	0.310%
	D	2/25/2001	3.310	3.310			
Tbl 3B	E	2/9/2004	3.339	3.339	-0.011	-0.110%	-0.110%
	E	8/19/2003	3.350	3.350	-0.007	-0.070%	-0.070%
	E	5/27/2003	3.357	3.357	0.007	0.070%	0.070%
	E	2/4/2003	3.350	3.350	0.030	0.300%	0.300%
	E	1/10/2002	3.320	3.320	0.035	0.350%	0.350%
	E	7/30/2001	3.285	3.285			
Tbl 3B	F	1/29/2004	3.335	3.335	-0.010	-0.100%	-0.100%
	F	7/7/2003	3.345	3.345	-0.003	-0.030%	-0.030%
	F	1/24/2003	3.348	3.348	0.001	0.010%	0.010%
	F	8/10/2002	3.347	3.347	0.000	0.000%	0.000%
	F	2/12/2002	3.347	3.347	-0.006	-0.060%	-0.060%
	F	9/11/2001	3.353	3.353	0.001	0.010%	0.010%
	F	3/24/2001	3.352	3.352			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 9B DOWNSCALE TRIP

	Description	Date	As Found	As Left	Delta	Delta % span	1st Outlier
Tbl 9B	A	7/20/2004	0.391	0.391	0.017	0.170%	0.170%
	A	8/23/2003	0.374	0.374	-0.002	-0.020%	-0.020%
	A	5/29/2003	0.376	0.376	0.021	0.210%	0.210%
	A	12/10/2002	0.355	0.355	-0.032	-0.320%	-0.320%
	A	7/2/2002	0.387	0.387	-0.005	-0.050%	-0.050%
	A	1/8/2002	0.392	0.392	-0.007	-0.070%	-0.070%
	A	7/30/2001	0.399	0.399			
Tbl 9B	B	1/28/2004	0.373	0.373	0.005	0.050%	0.050%
	B	7/15/2003	0.368	0.368	-0.032	-0.320%	-0.320%
	B	1/21/2003	0.400	0.400	0.028	0.280%	0.280%
	B	8/5/2002	0.372	0.372	0.018	0.180%	0.180%
	B	3/2/2002	0.354	0.354	-0.056	-0.560%	-0.560%
	B	9/7/2001	0.410	0.410	0.018	0.180%	0.180%
	B	3/24/2001	0.392	0.392			
Tbl 9B	C	1/15/2004	0.381	0.381	-0.037	-0.370%	-0.370%
	C	8/2/2003	0.418	0.418	0.009	0.090%	0.090%
	C	2/9/2003	0.409	0.409	0.000	0.000%	0.000%
	C	8/30/2002	0.409	0.409	0.025	0.250%	0.250%
	C	3/13/2002	0.384	0.384	-0.020	-0.200%	-0.200%
	C	9/23/2001	0.404	0.404	-0.010	-0.100%	-0.100%
	C	4/8/2001	0.414	0.414			
Tbl 9B	D	1/1/2004	0.453	0.453	0.109	1.090%	outlier
	D	6/20/2003	0.344	0.344	-0.115	-1.150%	outlier
	D	12/31/2002	0.459	0.459	0.105	1.050%	outlier
	D	7/13/2002	0.354	0.354	0.000	0.000%	0.000%
	D	1/29/2002	0.354	0.354	-0.001	-0.010%	-0.010%
	D	8/17/2001	0.355	0.355	0.003	0.030%	0.030%
	D	2/25/2001	0.352	0.352			
Tbl 9B	E	2/9/2004	0.360	0.360	0.016	0.160%	0.160%
	E	8/19/2003	0.344	0.344	-0.010	-0.100%	-0.100%
	E	5/27/2003	0.3546	0.354	-0.010	-0.104%	-0.104%
	E	2/4/2003	0.365	0.365	0.024	0.240%	0.240%
	E	1/10/2002	0.341	0.341	-0.021	-0.210%	-0.210%
	E	7/30/2001	0.362	0.362			
Tbl 9B	F	1/29/2004	0.385	0.385	-0.019	-0.190%	-0.190%
	F	7/7/2003	0.404	0.404	0.023	0.230%	0.230%
	F	1/24/2003	0.381	0.381	-0.013	-0.130%	-0.130%
	F	8/10/2002	0.394	0.394	-0.003	-0.030%	-0.030%
	F	2/12/2002	0.397	0.397	0.019	0.190%	0.190%
	F	9/11/2001	0.378	0.378	-0.020	-0.200%	-0.200%
	F	3/24/2001	0.398	0.398			

COUNT	140	140	137
AVERAGE		0.009%	0.002%
STDEV		0.303%	0.260%
VARIANCE		0.001%	0.001%
KURTOSIS		4.188	3.332
SKEWNESS		-0.021	-0.308
MAXIMUM		1.090%	0.880%
MINIMUM		-1.150%	-0.930%
95%/95% TIF		2.184	2.194
|AVG|+STDEV x 95/95 TIF		0.671%	0.572%
% OF ORIGINAL COUNT		100.00%	97.86%

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 4B UPSCALE THERMAL ALARM (100% FLOW)

	Description	Date	As Found	As Left	Delta	Delta % span	1st Outlier
Tbl 4B	A	7/20/2004	8.547	8.547	0.011	0.110%	0.110%
	A	8/23/2003	8.536	8.536	0.021	0.210%	0.210%
	A	5/29/2003	8.515	8.515	-0.014	-0.140%	-0.140%
	A	12/10/2002	8.529	8.529	-0.019	-0.190%	-0.190%
	A	7/2/2002	8.548	8.548	0.008	0.080%	0.080%
	A	1/8/2002	8.540	8.540	-0.019	-0.190%	-0.190%
	A	7/30/2001	8.559	8.559			
Tbl 4B	B	1/28/2004	8.604	8.604	0.025	0.250%	0.250%
	B	7/15/2003	8.579	8.579	0.009	0.090%	0.090%
	B	1/21/2003	8.570	8.570	-0.043	-0.430%	-0.430%
	B	8/5/2002	8.613	8.613	-0.001	-0.010%	-0.010%
	B	3/2/2002	8.614	8.614	-0.003	-0.030%	-0.030%
	B	9/7/2001	8.617	8.617	0.014	0.140%	0.140%
	B	3/24/2001	8.603	8.603			
Tbl 4B	C	1/15/2004	8.570	8.570	0.001	0.010%	0.010%
	C	8/2/2003	8.569	8.569	-0.016	-0.160%	-0.160%
	C	2/9/2003	8.585	8.585	0.049	0.490%	0.490%
	C	8/30/2002	8.536	8.536	-0.069	-0.690%	-0.690%
	C	3/13/2002	8.605	8.605	0.000	0.000%	0.000%
	C	9/23/2001	8.605	8.605	0.005	0.050%	0.050%
	C	4/8/2001	8.600	8.600			
Tbl 4B	D	1/1/2004	8.605	8.605	0.003	0.030%	0.030%
	D	6/20/2003	8.602	8.602	0.018	0.180%	0.180%
	D	12/31/2002	8.584	8.584	-0.038	-0.380%	-0.380%
	D	7/13/2002	8.622	8.622	0.001	0.010%	0.010%
	D	1/29/2002	8.621	8.621	0.012	0.120%	0.120%
	D	8/17/2001	8.609	8.609	0.020	0.200%	0.200%
	D	2/25/2001	8.589	8.589			
Tbl 4B	E	2/9/2004	8.596	8.596	-0.011	-0.110%	-0.110%
	E	8/19/2003	8.607	8.607	0.012	0.120%	0.120%
	E	5/27/2003	8.595	8.595	-0.021	-0.210%	-0.210%
	E	2/4/2003	8.616	8.616	0.037	0.370%	0.370%
	E	1/10/2002	8.579	8.579	-0.009	-0.090%	-0.090%
	E	7/30/2001	8.588	8.588			
Tbl 4B	F	1/29/2004	8.588	8.588	0.011	0.110%	0.110%
	F	7/7/2003	8.577	8.577	0.028	0.280%	0.280%
	F	1/24/2003	8.549	8.549	-0.022	-0.220%	-0.220%
	F	8/10/2002	8.571	8.571	-0.019	-0.190%	-0.190%
	F	2/12/2002	8.590	8.590	-0.003	-0.030%	-0.030%
	F	9/11/2001	8.593	8.593	0.018	0.180%	0.180%
	F	3/24/2001	8.575	8.575			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 5B NEUTRON TRIP (RUN HI HI)

	Description	Date	As Found	As Left	Delta	Delta % span	1st Outlier
Tbl 5B	A	7/20/2004	9.406	9.406	-0.001	-0.010%	-0.010%
	A	8/23/2003	9.407	9.407	0.024	0.240%	0.240%
	A	5/29/2003	9.383	9.383	-0.010	-0.100%	-0.100%
	A	12/10/2002	9.393	9.393	-0.012	-0.120%	-0.120%
	A	7/2/2002	9.405	9.405	-0.028	-0.280%	-0.280%
	A	1/8/2002	9.433	9.433	0.023	0.230%	0.230%
	A	7/30/2001	9.41	9.41			
Tbl 5B	B	1/28/2004	9.395	9.395	0.023	0.230%	0.230%
	B	7/15/2003	9.372	9.372	-0.005	-0.050%	-0.050%
	B	1/21/2003	9.377	9.377	-0.021	-0.210%	-0.210%
	B	8/5/2002	9.398	9.398	-0.033	-0.330%	-0.330%
	B	3/2/2002	9.431	9.431	0.023	0.230%	0.230%
	B	9/7/2001	9.408	9.408	0.032	0.320%	0.320%
	B	3/24/2001	9.376	9.376			
Tbl 5B	C	1/15/2004	9.410	9.410	0.043	0.430%	0.430%
	C	8/2/2003	9.367	9.367	-0.038	-0.380%	-0.380%
	C	2/9/2003	9.405	9.405	0.005	0.050%	0.050%
	C	8/30/2002	9.400	9.400	-0.009	-0.090%	-0.090%
	C	3/13/2002	9.409	9.409	-0.023	-0.230%	-0.230%
	C	9/23/2001	9.432	9.432	0.041	0.410%	0.410%
	C	4/8/2001	9.391	9.391			
Tbl 5B	D	1/1/2004	9.398	9.398	0.034	0.340%	0.340%
	D	6/20/2003	9.364	9.364	-0.001	-0.010%	-0.010%
	D	12/31/2002	9.365	9.365	-0.003	-0.030%	-0.030%
	D	7/13/2002	9.368	9.368	0.019	0.190%	0.190%
	D	1/29/2002	9.349	9.349	-0.001	-0.010%	-0.010%
	D	8/17/2001	9.350	9.350	-0.029	-0.290%	-0.290%
	D	2/25/2001	9.379	9.379			
Tbl 5B	E	2/9/2004	9.377	9.377	0.014	0.140%	0.140%
	E	8/19/2003	9.363	9.363	-0.013	-0.130%	-0.130%
	E	5/27/2003	9.376	9.376	0.016	0.160%	0.160%
	E	2/4/2003	9.360	9.360	-0.002	-0.020%	-0.020%
	E	1/10/2002	9.362	9.362	-0.019	-0.190%	-0.190%
	E	7/30/2001	9.381	9.381			
Tbl 5B	F	1/29/2004	9.415	9.415	-0.013	-0.130%	-0.130%
	F	7/7/2003	9.428	9.428	0.009	0.090%	0.090%
	F	1/24/2003	9.419	9.419	-0.003	-0.030%	-0.030%
	F	8/10/2002	9.422	9.422	0.043	0.430%	0.430%
	F	2/12/2002	9.379	9.379	-0.042	-0.420%	-0.420%
	F	9/11/2001	9.421	9.421	0.006	0.060%	0.060%
	F	3/24/2001	9.415	9.415			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 6B UPSCALE THERM TRIP (HIGH FLOW CLAMPED)

	Description	Date	As Found	As Left	Delta	Delta % span	1st Outlier
Tbl 6B	A	7/20/2004	9.048	9.048	-0.008	-0.080%	-0.080%
	A	8/23/2003	9.056	9.056	0.018	0.180%	0.180%
	A	5/29/2003	9.038	9.038	-0.015	-0.150%	-0.150%
	A	12/10/2002	9.053	9.053	0.010	0.100%	0.100%
	A	7/2/2002	9.043	9.043	0.002	0.020%	0.020%
	A	1/8/2002	9.041	9.041	-0.002	-0.020%	-0.020%
	A	7/30/2001	9.043	9.043			
Tbl 6B	B	1/28/2004	9.075	9.075	0.051	0.510%	0.510%
	B	7/15/2003	9.024	9.024	-0.022	-0.220%	-0.220%
	B	1/21/2003	9.046	9.046	0.008	0.080%	0.080%
	B	8/5/2002	9.038	9.038	0.051	0.510%	0.510%
	B	3/2/2002	8.987	8.987	-0.005	-0.050%	-0.050%
	B	9/7/2001	8.992	8.992	0.018	0.180%	0.180%
	B	3/24/2001	8.974	8.974			
Tbl 6B	C	1/15/2004	9.015	9.015	-0.018	-0.180%	-0.180%
	C	8/2/2003	9.033	9.033	0.018	0.180%	0.180%
	C	2/9/2003	9.015	9.015	-0.013	-0.130%	-0.130%
	C	8/30/2002	9.028	9.028	0.001	0.010%	0.010%
	C	3/13/2002	9.027	9.027	0.003	0.030%	0.030%
	C	9/23/2001	9.024	9.024	-0.002	-0.020%	-0.020%
	C	4/8/2001	9.026	9.026			
Tbl 6B	D	1/1/2004	8.973	8.973	-0.069	-0.690%	-0.690%
	D	6/20/2003	9.042	9.042	0.011	0.110%	0.110%
	D	12/31/2002	9.031	9.031	-0.019	-0.190%	-0.190%
	D	7/13/2002	9.050	9.050	0.030	0.300%	0.300%
	D	1/29/2002	9.020	9.020	-0.042	-0.420%	-0.420%
	D	8/17/2001	9.062	9.062	0.025	0.250%	0.250%
	D	2/25/2001	9.037	9.037			
Tbl 6B	E	2/9/2004	8.999	8.999	-0.033	-0.330%	-0.330%
	E	8/19/2003	9.032	9.032	0.038	0.380%	0.380%
	E	5/27/2003	8.994	8.994	-0.016	-0.160%	-0.160%
	E	2/4/2003	9.010	9.010	-0.031	-0.310%	-0.310%
	E	1/10/2002	9.041	9.041	0.003	0.030%	0.030%
	E	7/30/2001	9.038	9.038			
Tbl 6B	F	1/29/2004	8.975	8.975	-0.067	-0.670%	-0.670%
	F	7/7/2003	9.042	9.042	0.007	0.070%	0.070%
	F	1/24/2003	9.035	9.035	-0.005	-0.050%	-0.050%
	F	8/10/2002	9.040	9.040	0.005	0.050%	0.050%
	F	2/12/2002	9.035	9.035	0.020	0.200%	0.200%
	F	9/11/2001	9.015	9.015	0.000	0.000%	0.000%
	F	3/24/2001	9.015	9.015			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 8B UPSCALE THERMAL TRIP (30% FLOW)

	Description	Date	As Found	As Left	Delta	Delta % span	1st Outlier
Tbl 8B	A	7/20/2004	5.625	5.625	0.002	0.020%	0.020%
	A	8/23/2003	5.623	5.623	-0.008	-0.080%	-0.080%
	A	5/29/2003	5.631	5.631	0.010	0.100%	0.100%
	A	12/10/2002	5.621	5.621	-0.006	-0.060%	-0.060%
	A	7/2/2002	5.627	5.627	-0.004	-0.040%	-0.040%
	A	1/8/2002	5.631	5.631	-0.005	-0.050%	-0.050%
	A	7/30/2001	5.636	5.636			
Tbl 8B	B	1/28/2004	5.579	5.579	-0.020	-0.200%	-0.200%
	B	7/15/2003	5.599	5.599	-0.006	-0.060%	-0.060%
	B	1/21/2003	5.605	5.605	0.008	0.080%	0.080%
	B	8/5/2002	5.597	5.597	-0.031	-0.310%	-0.310%
	B	3/2/2002	5.628	5.628	-0.007	-0.070%	-0.070%
	B	9/7/2001	5.635	5.635	-0.013	-0.130%	-0.130%
	B	3/24/2001	5.648	5.648			
Tbl 8B	C	1/15/2004	5.604	5.604	0.027	0.270%	0.270%
	C	8/2/2003	5.577	5.577	-0.013	-0.130%	-0.130%
	C	2/9/2003	5.590	5.590	0.038	0.380%	0.380%
	C	8/30/2002	5.552	5.552	-0.048	-0.480%	-0.480%
	C	3/13/2002	5.600	5.600	0.000	0.000%	0.000%
	C	9/23/2001	5.600	5.600	-0.012	-0.120%	-0.120%
	C	4/8/2001	5.612	5.612			
Tbl 8B	D	1/1/2004	5.597	5.597	-0.005	-0.050%	-0.050%
	D	6/20/2003	5.602	5.602	0.016	0.160%	0.160%
	D	12/31/2002	5.586	5.586	0.010	0.100%	0.100%
	D	7/13/2002	5.576	5.576	-0.030	-0.300%	-0.300%
	D	1/29/2002	5.606	5.606	-0.005	-0.050%	-0.050%
	D	8/17/2001	5.611	5.611	0.029	0.290%	0.290%
	D	2/25/2001	5.582	5.582			
Tbl 8B	E	2/9/2004	5.615	5.615	-0.026	-0.260%	-0.260%
	E	8/19/2003	5.641	5.641	0.013	0.130%	0.130%
	E	5/27/2003	5.628	5.628	-0.001	-0.010%	-0.010%
	E	2/4/2003	5.629	5.629	-0.031	-0.310%	-0.310%
	E	1/10/2002	5.660	5.660	0.000	0.000%	0.000%
	E	7/30/2001	5.660	5.660			
Tbl 8B	F	1/29/2004	5.640	5.640	-0.011	-0.110%	-0.110%
	F	7/7/2003	5.651	5.651	0.017	0.170%	0.170%
	F	1/24/2003	5.634	5.634	-0.017	-0.170%	-0.170%
	F	8/10/2002	5.651	5.651	-0.008	-0.080%	-0.080%
	F	2/12/2002	5.659	5.659	-0.001	-0.010%	-0.010%
	F	9/11/2001	5.660	5.660	0.011	0.110%	0.110%
	F	3/24/2001	5.649	5.649			

COUNT	140	140	140
AVERAGE		-0.009%	-0.009%
STDEV		0.230%	0.230%
VARIANCE		0.001%	0.001%
KURTOSIS		0.618	0.618
SKEWNESS		-0.289	-0.289
MAXIMUM		0.510%	0.510%
MINIMUM		-0.690%	-0.690%
95%/95% TIF		2.184	2.184
|AVG|+STDEV x 95/95 TIF		0.511%	0.511%
% OF ORIGINAL COUNT		100.00%	100.00%

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 7B UPSCALE THERMAL TRIP TIME CONSTANT

Description	Date	Table 7B: As Found	Table 7B: As Left	Delta	Delta % span	1st Outlier
A	7/20/2004	28.6	28.6	0.300	0.500%	0.500%
A	8/23/2003	28.3	28.3	-1.300	-2.167%	-2.167%
A	5/29/2003	29.6	29.6	1.300	2.167%	2.167%
A	12/10/2002	28.3	28.3	-0.900	-1.500%	-1.500%
A	7/2/2002	29.2	29.2	0.200	0.333%	0.333%
A	1/8/2002	29.0	29.0	0.200	0.333%	0.333%
A	7/30/2001	28.8	28.8			
B	1/28/2004	27.16	27.16	-3.690	-6.150%	-6.150%
B	7/15/2003	30.85	30.85	2.350	3.917%	3.917%
B	1/21/2003	28.5	28.5	-1.400	-2.333%	-2.333%
B	8/5/2002	29.9	29.9	-0.700	-1.167%	-1.167%
B	3/2/2002	30.6	30.6	0.600	1.000%	1.000%
B	9/7/2001	30.0	30.0	0.100	0.167%	0.167%
B	3/24/2001	29.9	29.9			
C	1/15/2004	31.4	31.4	1.800	3.000%	3.000%
C	8/2/2003	29.6	29.6	-2.200	-3.667%	-3.667%
C	2/9/2003	31.8	31.8	1.300	2.167%	2.167%
C	8/30/2002	30.5	30.5	-0.200	-0.333%	-0.333%
C	3/13/2002	30.7	30.7	-0.200	-0.333%	-0.333%
C	9/23/2001	30.9	30.9	0.100	0.167%	0.167%
C	4/8/2001	30.8	30.8			
D	1/1/2004	32.56	32.56	4.460	7.433%	7.433%
D	6/20/2003	28.1	28.1	-0.300	-0.500%	-0.500%
D	12/31/2002	28.4	28.4	0.600	1.000%	1.000%
D	7/13/2002	27.8	27.8	0.200	0.333%	0.333%
D	1/29/2002	27.6	27.6	-0.700	-1.167%	-1.167%
D	8/17/2001	28.3	28.3	-0.700	-1.167%	-1.167%
D	2/25/2001	29.0	29.0			
E	2/9/2004	29.7	29.7	2.200	3.667%	3.667%
E	8/19/2003	27.50	27.50	-2.100	-3.500%	-3.500%
E	5/27/2003	29.6	29.6	1.600	2.667%	2.667%
E	2/4/2003	28.0	28.0	-1.600	-2.667%	-2.667%
E	1/10/2002	29.6	29.6	-0.200	-0.333%	-0.333%
E	7/30/2001	29.8	29.8			
F	1/29/2004	29.1	29.1	-1.250	-2.083%	-2.083%
F	7/7/2003	30.35	30.35	-0.550	-0.917%	-0.917%
F	1/24/2003	30.9	30.9	1.100	1.833%	1.833%
F	8/10/2002	29.8	29.8	-0.100	-0.167%	-0.167%
F	2/12/2002	29.9	29.9	2.100	3.500%	3.500%
F	9/11/2001	27.8	27.8	-4.400	-7.333%	-7.333%
F	3/24/2001	32.2	32.2			

COUNT	35	35	35
AVERAGE		-0.094%	-0.094%
STDEV		2.840%	2.840%
VARIANCE		0.081%	0.081%
KURTOSIS		1.334	1.334
SKEWNESS		-0.087	-0.087
MAXIMUM		7.433%	7.433%
MINIMUM		-7.333%	-7.333%
95%/95% TIF		2.490	2.490
|AVG|+STDEV x 95/95 TIF		7.165%	7.165%
% OF ORIGINAL COUNT		100.00%	100.00%

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 10B COUNT and INOP TRIP

Description	Date	Table10B: As Found	Table 10B: As Left	Delta	Delta % span	1st Outlier
A	7/20/2004	5.303	5.303	-0.004	-0.040%	-0.040%
A	8/23/2003	5.307	5.307	0.000	0.000%	0.000%
A	5/29/2003	5.307	5.307	0.007	0.070%	0.070%
A	12/10/2002	5.300	5.300	0.009	0.090%	0.090%
A	7/2/2002	5.291	5.291	0.083	0.830%	0.830%
A	1/8/2002	5.208	5.208	-0.094	-0.940%	-0.940%
A	7/30/2001	5.302	5.302			
B	1/28/2004	5.176	5.176	0.002	0.020%	0.020%
B	7/15/2003	5.174	5.174	0.002	0.020%	0.020%
B	1/21/2003	5.172	5.172	-0.003	-0.030%	-0.030%
B	8/5/2002	5.175	5.175	0.009	0.090%	0.090%
B	3/2/2002	5.166	5.166	-0.147	-1.470%	outlier
B	9/7/2001	5.313	5.313	0.004	0.040%	0.040%
B	3/24/2001	5.309	5.309			
C	1/15/2004	5.187	5.187	0.000	0.000%	0.000%
C	8/2/2003	5.187	5.187	0.005	0.050%	0.050%
C	2/9/2003	5.182	5.182	-0.004	-0.040%	-0.040%
C	8/30/2002	5.186	5.186	0.011	0.110%	0.110%
C	3/13/2002	5.175	5.175	-0.006	-0.060%	-0.060%
C	9/23/2001	5.181	5.181	-0.001	-0.010%	-0.010%
C	4/8/2001	5.182	5.182			
D	1/1/2004	5.218	5.218	0.000	0.000%	0.000%
D	6/20/2003	5.218	5.218	0.002	0.020%	0.020%
D	12/31/2002	5.216	5.216	0.002	0.020%	0.020%
D	7/13/2002	5.214	5.214	0.004	0.040%	0.040%
D	1/29/2002	5.210	5.210	-0.004	-0.040%	-0.040%
D	8/17/2001	5.214	5.214	0.002	0.020%	0.020%
D	2/25/2001	5.212	5.212			
E	2/9/2004	5.118	5.118	-0.016	-0.160%	-0.160%
E	8/19/2003	5.134	5.134	0.009	0.090%	0.090%
E	5/27/2003	5.125	5.125	-0.009	-0.090%	-0.090%
E	2/4/2003	5.134	5.134	-0.063	-0.630%	-0.630%
E	1/10/2002	5.197	5.197	0.017	0.170%	0.170%
E	7/30/2001	5.180	5.180			
F	1/29/2004	5.249	5.249	0.013	0.130%	0.130%
F	7/7/2003	5.236	5.236	0.000	0.000%	0.000%
F	1/24/2003	5.236	5.236	-0.006	-0.060%	-0.060%
F	8/10/2002	5.242	5.242	-0.007	-0.070%	-0.070%
F	2/12/2002	5.249	5.249	0.005	0.050%	0.050%
F	9/11/2001	5.244	5.244			
F	3/24/2001	5.240	5.240			

COUNT	34	34	33
AVERAGE		-0.052%	-0.009%
STDEV		0.356%	0.257%
VARIANCE		0.001%	0.001%
KURTOSIS		8.869	8.752
SKEWNESS		-2.150	-0.868
MAXIMUM		0.830%	0.830%
MINIMUM		-1.470%	-0.940%
95%/95% TIF		2.549	2.549
|AVG|+STDEV x 95/95 TIF		0.960%	0.665%
% OF ORIGINAL COUNT		100.00%	97.06%

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 15

Description	Date	Table 15: As Found (APRM DC Amplifier)	Table 15: As Left (APRM DC Amplifier)	Delta	Delta % span	1st Outlier
A	7/20/2004	0.001	0.001	0.001	0.010%	0.010%
A	8/23/2003	0.000	0.000	0.005	0.050%	0.050%
A	*5/29/2003*	*-0.005*	*-0.005*	*-0.006*	*-0.060%*	*outlier*
A	12/10/2002	0.001	0.001	0.001	0.010%	0.010%
A	7/2/2002	0.000	0.000	-0.001	-0.010%	-0.010%
A	1/8/2002	0.001	0.001	0.001	0.010%	0.010%
A	7/30/2001	0.000	0.000			
B	1/28/2004	0.004	0.004	0.001	0.010%	0.010%
B	7/15/2003	0.003	0.003	0.003	0.030%	0.030%
B	1/21/2003	0.000	0.000	-0.004	-0.040%	-0.040%
B	8/5/2002	0.004	0.004	0.003	0.030%	0.030%
B	3/2/2002	0.001	0.001	-0.002	-0.020%	-0.020%
B	9/7/2001	0.003	0.003	0.000	0.000%	0.000%
B	3/24/2001	0.003	0.003			
C	1/15/2004	0.000	0.000	-0.002	-0.020%	-0.020%
C	8/2/2003	0.002	0.002	0.002	0.020%	0.020%
C	2/9/2003	0.000	0.000	-0.002	-0.020%	-0.020%
C	8/30/2002	0.002	0.002	0.002	0.020%	0.020%
C	3/13/2002	0.000	0.000	-0.002	-0.020%	-0.020%
C	9/23/2001	0.002	0.002	0.000	0.000%	0.000%
C	4/8/2001	0.002	0.002			
D	1/1/2004	0.000	0.000	0.000	0.000%	0.000%
D	6/20/2003	0.000	0.000	0.000	0.000%	0.000%
D	12/31/2002	0.000	0.000	0.000	0.000%	0.000%
D	7/13/2002	0.000	0.000	0.000	0.000%	0.000%
D	1/29/2002	0.000	0.000	-0.001	-0.010%	-0.010%
D	8/17/2001	0.001	0.001	0.001	0.010%	0.010%
D	2/25/2001	0.000	0.000			
E	2/9/2004	0.003	0.003	-0.001	-0.010%	-0.010%
E	8/19/2003	0.004	0.004	0.000	0.000%	0.000%
E	5/27/2003	0.004	0.004	-0.001	-0.010%	-0.010%
E	2/4/2003	0.005	0.005	0.001	0.010%	0.010%
E	1/10/2002	0.004	0.004	0.000	0.000%	0.000%
E	7/30/2001	0.004	0.004			
F	1/29/2004	-0.001	-0.001	0.000	0.000%	0.000%
F	7/7/2003	-0.001	-0.001	0.001	0.010%	0.010%
F	1/24/2003	-0.002	-0.002	-0.001	-0.010%	-0.010%
F	8/10/2002	-0.001	-0.001	0.001	0.010%	0.010%
F	2/12/2002	-0.002	-0.002	0.000	0.000%	0.000%
F	9/11/2001	-0.002	-0.002	0.000	0.000%	0.000%
F	3/24/2001	-0.002	-0.002			

COUNT	35	35	34
AVERAGE		0.000%	0.002%
STDEV		0.020%	0.017%
VARIANCE		0.000%	0.000%
KURTOSIS		2.416	1.528
SKEWNESS		-0.465	0.340
MAXIMUM		0.050%	0.050%
MINIMUM		-0.060%	-0.040%
95%/95% TIF		2.490	2.549
|AVG|+STDEV x 95/95 TIF		0.049%	0.045%
% OF ORIGINAL COUNT		100.00%	97.14%

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 16 FRONT PANEL METER M1

		Description	Date	As Found	As Left	Delta	Delta % span	1st Outlier
0 Volts	Upscale	A	7/20/2004	0.009	0.009	0.004	0.040%	0.040%
		A	8/23/2003	0.005	0.005	0.007	0.070%	0.070%
		A	5/29/2003	-0.002	-0.002	-0.008	-0.080%	-0.080%
		A	12/10/2002	0.006	0.006	0.001	0.010%	0.010%
		A	7/2/2002	0.005	0.005	-0.003	-0.030%	-0.030%
		A	1/8/2002	0.008	0.008	0.003	0.030%	0.030%
		A	7/30/2001	0.005	0.005			
0 Volts	Upscale	B	1/28/2004	0.011	0.011	0.000	0.000%	0.000%
		B	7/15/2003	0.011	0.011	-0.001	-0.010%	-0.010%
		B	1/21/2003	0.012	0.012	-0.001	-0.010%	-0.010%
		B	8/5/2002	0.013	0.013	0.010	0.100%	0.100%
		B	3/2/2002	0.003	0.003	-0.010	-0.100%	-0.100%
		B	9/7/2001	0.013	0.013	0.001	0.010%	0.010%
		B	3/24/2001	0.012	0.012			
0 Volts	Upscale	C	1/15/2004	0.054	0.054	-0.026	-0.260%	-0.260%
		C	8/2/2003	0.080	0.080	0.034	0.340%	0.340%
		C	2/9/2003	0.046	0.046	-0.001	-0.010%	-0.010%
		C	8/30/2002	0.047	0.047	-0.031	-0.310%	-0.310%
		C	3/13/2002	0.078	0.078	0.038	0.380%	0.380%
		C	9/23/2001	0.040	0.040	-0.009	-0.090%	-0.090%
		C	4/8/2001	0.049	0.049			
0 Volts	Upscale	D	1/1/2004	0.034	0.034	0.005	0.050%	0.050%
		D	6/20/2003	0.029	0.029	-0.022	-0.220%	-0.220%
		D	12/31/2002	0.051	0.051	-0.013	-0.130%	-0.130%
		D	7/13/2002	0.064	0.064	-0.005	-0.050%	-0.050%
		D	1/29/2002	0.069	0.069	0.012	0.120%	0.120%
		D	8/17/2001	0.057	0.057	0.028	0.280%	0.280%
		D	2/25/2001	0.029	0.029			
0 Volts	Upscale	E	2/9/2004	0.034	0.034	-0.002	-0.020%	-0.020%
		E	8/19/2003	0.036	0.036	0.001	0.010%	0.010%
		E	5/27/2003	0.035	0.035	-0.008	-0.080%	-0.080%
		E	2/4/2003	0.043	0.043	0.009	0.090%	0.090%
		E	1/10/2002	0.034	0.034	0.000	0.000%	0.000%
		E	7/30/2001	0.034	0.034			
0 Volts	Upscale	F	3/24/2001	0.029	0.029	-0.023	-0.230%	-0.230%
		F	9/11/2001	0.052	0.052	0.021	0.210%	0.210%
		F	2/12/2002	0.031	0.031	-0.001	-0.010%	-0.010%
		F	8/10/2002	0.032	0.032	0.003	0.030%	0.030%
		F	1/24/2003	0.029	0.029	0.005	0.050%	0.050%
		F	7/7/2003	0.024	0.024	-0.081	-0.810%	outlier
		F	1/29/2004	0.105	0.105			
0 Volts	Dnscale	A	7/20/2004	0.009	0.009	0.003	0.030%	0.030%
		A	8/23/2003	0.006	0.006	0.000	0.000%	0.000%
		A	5/29/2003	0.006	0.006	0.000	0.000%	0.000%
		A	12/10/2002	0.006	0.006	0.001	0.010%	0.010%
		A	7/2/2002	0.005	0.005	-0.003	-0.030%	-0.030%
		A	1/8/2002	0.008	0.008	0.002	0.020%	0.020%
		A	7/30/2001	0.006	0.006			
0 Volts	Dnscale	B	1/28/2004	0.014	0.014	0.003	0.030%	0.030%
		B	7/15/2003	0.011	0.011	-0.001	-0.010%	-0.010%
		B	1/21/2003	0.012	0.012	-0.001	-0.010%	-0.010%
		B	8/5/2002	0.013	0.013	0.010	0.100%	0.100%
		B	3/2/2002	0.003	0.003	-0.008	-0.080%	-0.080%
		B	9/7/2001	0.011	0.011	-0.002	-0.020%	-0.020%
		B	3/24/2001	0.013	0.013			

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0 Volts	Dnscale	C	1/15/2004	0.046	0.046	-0.025	-0.250%	-0.250%
		C	8/2/2003	0.071	0.071	0.059	0.590%	0.590%
		C	2/9/2003	0.012	0.012	-0.044	-0.440%	-0.440%
		C	8/30/2002	0.056	0.056	0.013	0.130%	0.130%
		C	3/13/2002	0.043	0.043	0.012	0.120%	0.120%
		C	9/23/2001	0.031	0.031	-0.018	-0.180%	-0.180%
		C	4/8/2001	0.049	0.049			
0 Volts	Dnscale	D	1/1/2004	0.078	0.078	0.047	0.470%	0.470%
		D	6/20/2003	0.031	0.031	-0.027	-0.270%	-0.270%
		D	12/31/2002	0.058	0.058	0.002	0.020%	0.020%
		D	7/13/2002	0.056	0.056	0.033	0.330%	0.330%
		D	1/29/2002	0.023	0.023	-0.050	-0.500%	-0.500%
		D	8/17/2001	0.073	0.073	0.041	0.410%	0.410%
		D	2/25/2001	0.032	0.032			
0 Volts	Dnscale	E	2/9/2004	0.042	0.042	0.000	0.000%	0.000%
		E	8/19/2003	0.042	0.042	0.008	0.080%	0.080%
		E	5/27/2003	0.034	0.034	-0.010	-0.100%	-0.100%
		E	2/4/2003	0.044	0.044	0.011	0.110%	0.110%
		E	1/10/2002	0.033	0.033	0.000	0.000%	0.000%
		E	7/30/2001	0.033	0.033			
0 Volts	Dnscale	F	1/29/2004	0.035	0.035	0.011	0.110%	0.110%
		F	7/7/2003	0.024	0.024	-0.007	-0.070%	-0.070%
		F	1/24/2003	0.031	0.031	0.001	0.010%	0.010%
		F	8/10/2002	0.030	0.030	-0.003	-0.030%	-0.030%
		F	2/12/2002	0.033	0.033	-0.011	-0.110%	-0.110%
		F	9/11/2001	0.044	0.044	0.016	0.160%	0.160%
		F	3/24/2001	0.028	0.028			

COUNT	70	70	69
AVERAGE		0.000%	0.012%
STDEV		0.208%	0.185%
VARIANCE		0.000%	0.000%
KURTOSIS		3.702	2.006
SKEWNESS		-0.504	0.344
MAXIMUM		0.590%	0.590%
MINIMUM		-0.810%	-0.500%
95%/95% TIF		2.299	2.315
|AVG|+STDEV x 95/95 TIF		0.479%	0.440%
% OF ORIGINAL COUNT		100.00%	98.57%

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 16 FRONT PANEL METER M1

		Description	Date	As Found	As Left	Delta	Delta % span	1st Outlier
5 Volts	Upscale	A	7/20/2004	4.974	4.974	-0.044	-0.440%	-0.440%
		A	8/23/2003	5.018	5.018	-0.016	-0.160%	-0.160%
		A	5/29/2003	5.034	5.034	0.025	0.250%	0.250%
		A	12/10/2002	5.009	5.009	-0.015	-0.150%	-0.150%
		A	7/2/2002	5.024	5.024	0.026	0.260%	0.260%
		A	1/8/2002	4.998	4.998	-0.024	-0.240%	-0.240%
		A	7/30/2001	5.022	5.022			
5 Volts	Upscale	B	1/28/2004	5.038	5.038	-0.027	-0.270%	-0.270%
		B	7/15/2003	5.065	5.065	0.061	0.610%	0.610%
		B	1/21/2003	5.004	5.004	-0.031	-0.310%	-0.310%
		B	8/5/2002	5.035	5.035	-0.046	-0.460%	-0.460%
		B	3/2/2002	5.081	5.081	0.000	0.000%	0.000%
		B	9/7/2001	5.081	5.081	0.037	0.370%	0.370%
		B	3/24/2001	5.044	5.044			
5 Volts	Upscale	C	1/15/2004	5.128	5.128	-0.006	-0.060%	-0.060%
		C	8/2/2003	5.134	5.134	0.032	0.320%	0.320%
		C	2/9/2003	5.102	5.102	0.016	0.160%	0.160%
		C	8/30/2002	5.086	5.086	-0.034	-0.340%	-0.340%
		C	3/13/2002	5.120	5.120	0.020	0.200%	0.200%
		C	9/23/2001	5.100	5.100	-0.023	-0.230%	-0.230%
		C	4/8/2001	5.123	5.123			
5 Volts	Upscale	D	1/1/2004	5.092	5.092	0.013	0.130%	0.130%
		D	6/20/2003	5.079	5.079	0.014	0.140%	0.140%
		D	12/31/2002	5.065	5.065	-0.002	-0.020%	-0.020%
		D	7/13/2002	5.067	5.067	0.004	0.040%	0.040%
		D	1/29/2002	5.063	5.063	-0.004	-0.040%	-0.040%
		D	8/17/2001	5.067	5.067	0.018	0.180%	0.180%
		D	2/25/2001	5.049	5.049			
5 Volts	Upscale	E	2/9/2004	5.016	5.016	-0.008	-0.080%	-0.080%
		E	8/19/2003	5.024	5.024	0.010	0.100%	0.100%
		E	5/27/2003	5.014	5.014	0.007	0.070%	0.070%
		E	2/4/2003	5.007	5.007	-0.014	-0.140%	-0.140%
		E	1/10/2002	5.021	5.021	0.006	0.060%	0.060%
		E	7/30/2001	5.015	5.015			
5 Volts	Upscale	F	1/29/2004	4.910	4.910	-0.058	-0.580%	-0.580%
		F	7/7/2003	4.968	4.968	0.046	0.460%	0.460%
		F	1/24/2003	4.922	4.922	0.017	0.170%	0.170%
		F	8/10/2002	4.905	4.905	-0.032	-0.320%	-0.320%
		F	2/12/2002	4.937	4.937	-0.122	-1.220%	outlier
		F	9/11/2001	5.059	5.059	0.039	0.390%	0.390%
		F	3/24/2001	5.020	5.020			
5 Volts	Dnscale	A	7/20/2004	5.022	5.022	-0.001	-0.010%	-0.010%
		A	8/23/2003	5.028	5.023	0.005	0.050%	0.050%
		A	5/29/2003	5.023	5.023	0.022	0.220%	0.220%
		A	12/10/2002	5.001	5.001	-0.019	-0.190%	-0.190%
		A	7/2/2002	5.020	5.020	0.018	0.180%	0.180%
		A	1/8/2002	5.002	5.002	-0.010	-0.100%	-0.100%
		A	7/30/2001	5.012	5.012			
5 Volts	Dnscale	B	1/28/2004	5.045	5.045	-0.001	-0.010%	-0.010%
		B	7/15/2003	5.046	5.046	0.009	0.090%	0.090%
		B	1/21/2003	5.037	5.037	0.027	0.270%	0.270%
		B	8/5/2002	5.010	5.010	-0.050	-0.500%	-0.500%
		B	3/2/2002	5.060	5.060	-0.024	-0.240%	-0.240%
		B	9/7/2001	5.084	5.084	0.040	0.400%	0.400%
		B	3/24/2001	5.044	5.044			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

5 Volts	Dnscale	C	1/15/2004	5.126	5.126	-0.010	-0.100%	-0.100%
		C	8/2/2003	5.136	5.136	0.025	0.250%	0.250%
		C	2/9/2003	5.111	5.111	0.032	0.320%	0.320%
		C	8/30/2002	5.079	5.079	-0.038	-0.380%	-0.380%
		C	3/13/2002	5.117	5.117	0.017	0.170%	0.170%
		C	9/23/2001	5.100	5.100	-0.008	-0.080%	-0.080%
		C	4/8/2001	5.108	5.108			
5 Volts	Dnscale	D	1/1/2004	5.085	5.085	-0.004	-0.040%	-0.040%
		D	6/20/2003	5.089	5.089	0.026	0.260%	0.260%
		D	12/31/2002	5.063	5.063	0.003	0.030%	0.030%
		D	7/13/2002	5.060	5.060	-0.012	-0.120%	-0.120%
		D	1/29/2002	5.072	5.072	0.000	0.000%	0.000%
		D	8/17/2001	5.072	5.072	0.010	0.100%	0.100%
		D	2/25/2001	5.062	5.062			
5 Volts	Dnscale	E	2/9/2004	4.994	4.994	-0.005	-0.050%	-0.050%
		E	8/19/2003	4.999	4.999	0.002	0.020%	0.020%
		E	5/27/2003	4.997	4.997	-0.006	-0.060%	-0.060%
		E	2/4/2003	5.003	5.003	0.000	0.000%	0.000%
		E	1/10/2002	5.003	5.003	0.011	0.110%	0.110%
		E	7/30/2001	4.992	4.992			
5 Volts	Dnscale	F	1/29/2004	4.926	4.926	-0.009	-0.090%	-0.090%
		F	7/7/2003	4.935	4.935	0.013	0.130%	0.130%
		F	1/24/2003	4.922	4.922	-0.006	-0.060%	-0.060%
		F	8/10/2002	4.928	4.928	0.010	0.100%	0.100%
		F	2/12/2002	4.918	4.918	-0.155	-1.550%	outlier
		F	9/11/2001	5.073	5.073	0.047	0.470%	0.470%
		F	3/24/2001	5.026	5.026			

COUNT	70	70	68
AVERAGE		-0.022%	0.018%
STDEV		0.338%	0.244%
VARIANCE		0.001%	0.001%
KURTOSIS		6.840	0.014
SKEWNESS		-1.915	-0.153
MAXIMUM		0.610%	0.610%
MINIMUM		-1.550%	-0.580%
95%/95% TIF		2.299	2.315
|AVG|+STDEV x 95/95 TIF		0.799%	0.583%
% OF ORIGINAL COUNT		100.00%	97.14%

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 16 FRONT PANEL METER M1

	Description	Date	As Found	As Left	Delta	Delta % span	1st Outlier
10 Volts	A	7/20/2004	9.908	9.908	-0.048	-0.480%	-0.480%
	A	8/23/2003	9.956	9.956	-0.065	-0.650%	-0.650%
	A	5/29/2003	10.021	10.021	0.081	0.810%	0.810%
	A	12/10/2002	9.940	9.940	-0.036	-0.360%	-0.360%
	A	7/2/2002	9.976	9.976	0.032	0.320%	0.320%
	A	1/8/2002	9.944	9.944	-0.024	-0.240%	-0.240%
	A	7/30/2001	9.968	9.968			
10 Volts	B	1/28/2004	10.030	10.030	0.003	0.030%	0.030%
	B	7/15/2003	10.027	10.027	0.004	0.040%	0.040%
	B	1/21/2003	10.023	10.023	0.024	0.240%	0.240%
	B	8/5/2002	9.999	9.999	-0.062	-0.620%	-0.620%
	B	3/2/2002	10.061	10.061	0.038	0.380%	0.380%
	B	9/7/2001	10.023	10.023	-30.022	-300.220%	outlier
	B	3/24/2001	10.045	40.045			
10 Volts	C	1/15/2004	10.095	10.095	0.004	0.040%	0.040%
	C	8/2/2003	10.091	10.091	0.016	0.160%	0.160%
	C	2/9/2003	10.075	10.075	0.037	0.370%	0.370%
	C	8/30/2002	10.038	10.038	-0.042	-0.420%	-0.420%
	C	3/13/2002	10.080	10.080	0.009	0.090%	0.090%
	C	9/23/2001	10.071	10.071	-0.014	-0.140%	-0.140%
	C	4/8/2001	10.085	10.085			
10 Volts	D	1/1/2004	9.991	9.991	-0.049	-0.490%	-0.490%
	D	6/20/2003	10.040	10.040	0.069	0.690%	0.690%
	D	12/31/2002	9.971	9.971	-0.002	-0.020%	-0.020%
	D	7/13/2002	9.973	9.973	0.007	0.070%	0.070%
	D	1/29/2002	9.966	9.966	-0.032	-0.320%	-0.320%
	D	8/17/2001	9.998	9.998	0.074	0.740%	0.740%
	D	2/25/2001	9.924	9.924			
10 Volts	E	2/9/2004	10.005	10.005	0.016	0.160%	0.160%
	E	8/19/2003	9.989	9.989	-0.004	-0.040%	-0.040%
	E	5/27/2003	9.993	9.993	-0.003	-0.030%	-0.030%
	E	2/4/2003	9.996	9.996	0.004	0.040%	0.040%
	E	1/10/2002	9.992	9.992	0.014	0.140%	0.140%
	E	7/30/2001	9.978	9.978			
10 Volts	F	1/29/2004	9.920	9.920	0.010	0.100%	0.100%
	F	7/7/2003	9.910	9.910	0.040	0.400%	0.400%
	F	1/24/2003	9.870	9.870	-0.001	-0.010%	-0.010%
	F	8/10/2002	9.871	9.871	-0.044	-0.440%	-0.440%
	F	2/12/2002	9.915	9.915	-0.071	-0.710%	-0.710%
	F	9/11/2001	9.986	9.986	-0.015	-0.150%	-0.150%
	F	3/24/2001	10.001	10.001			
		COUNT			35	35	34
		AVERAGE				-8.586%	-0.009%
		STDEV				50.746%	0.384%
		VARIANCE				25.752%	0.001%
		KURTOSIS				34.996	-0.221
		SKEWNESS				-5.916	0.151
		MAXIMUM				0.810%	0.810%
		MINIMUM				-300.220%	-0.710%
		95%/95% TIF				2.490	2.549
		|AVG|+STDEV x 95/95 TIF				134.945%	0.987%
		% OF ORIGINAL COUNT				100.00%	97.14%

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 17A:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 1B-32-49	A	7/20/2004	8.063	8.063	0.021	0.210%	0.210%
	A	8/23/2003	8.042	8.042	0.003	0.030%	0.030%
	A	5/29/2003	8.039	8.039	-0.152	-1.520%	-1.520%
	A	12/10/2002	8.191	8.191	0.181	1.810%	1.810%
	A	7/2/2002	8.010	8.010	-0.002	-0.020%	-0.020%
	A	1/8/2002	8.012	8.012	-0.007	-0.070%	-0.070%
	A	7/30/2001	8.019	8.019			
LPRM Card 1B-08-49	B	1/28/2004	8.275	8.275	0.240	2.400%	2.400%
	B	7/15/2003	8.035	8.035	0.047	0.470%	0.470%
	B	1/21/2003	7.988	7.988	-0.047	-0.470%	-0.470%
	B	8/5/2002	8.035	8.035	0.027	0.270%	0.270%
	B	3/2/2002	8.008	8.008	-0.045	-0.450%	-0.450%
	B	9/7/2001	8.053	8.053	0.014	0.140%	0.140%
	B	3/24/2001	8.039	8.039			
LPRM Card 1B-24-57	C	1/15/2004	7.993	7.993	0.014	0.140%	0.140%
	C	8/2/2003	7.979	7.979	-0.065	-0.650%	-0.650%
	C	2/9/2003	8.044	8.044	0.075	0.750%	0.750%
	C	8/30/2002	7.969	7.969	0.000	0.000%	0.000%
	C	3/13/2002	7.969	7.969	-0.088	-0.880%	-0.880%
	C	9/23/2001	8.057	8.057	0.069	0.690%	0.690%
	C	4/8/2001	7.988	7.988			
LPRM Card 1B-32-57	D	1/1/2004	7.924	7.924	-0.107	-1.070%	-1.070%
	D	6/20/2003	8.031	8.031	0.114	1.140%	1.140%
	D	12/31/2002	7.917	7.917	-0.080	-0.800%	-0.800%
	D	7/13/2002	7.997	7.997	0.042	0.420%	0.420%
	D	1/29/2002	7.955	7.955	-0.012	-0.120%	-0.120%
	D	8/17/2001	7.967	7.967	-0.158	-1.580%	-1.580%
	D	2/25/2001	8.125	8.125			
LPRM Card 1B-16-49	E	2/9/2004	8.041	8.041	-0.101	-1.010%	-1.010%
	E	8/19/2003	8.142	8.142	0.090	0.900%	0.900%
	E	5/27/2003	8.052	8.052	-0.032	-0.320%	-0.320%
	E	2/4/2003	8.084	8.084	0.046	0.460%	0.460%
	E	1/10/2002	8.038	8.038	0.030	0.300%	0.300%
	E	7/30/2001	8.008	8.008			
LPRM Card 1B-24-49	F	1/29/2004	7.735	7.735	-0.264	-2.640%	-2.640%
	F	7/7/2003	7.999	7.999	-0.100	-1.000%	-1.000%
	F	1/24/2003	8.099	8.099	0.094	0.940%	0.940%
	F	8/10/2002	8.005	8.005	-0.006	-0.060%	-0.060%
	F	2/12/2002	8.011	8.011	-0.009	-0.090%	-0.090%
	F	9/11/2001	8.020	8.020	0.022	0.220%	0.220%
	F	3/24/2001	7.998	7.998			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 17A:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 1B-32-49	A	7/20/2004	0.307	0.307	0.203	2.030%	2.030%
	A	8/23/2003	0.104	0.104	-0.072	-0.720%	-0.720%
	A	5/29/2003	0.176	0.176	-0.062	-0.620%	-0.620%
	A	12/10/2002	0.238	0.238	0.033	0.330%	0.330%
	A	7/2/2002	0.205	0.205	-0.099	-0.990%	-0.990%
	A	1/8/2002	0.304	0.304	0.002	0.020%	0.020%
	A	7/30/2001	0.302	0.302			
LPRM Card 1B-08-49	B	1/28/2004	0.285	0.285	-0.040	-0.400%	-0.400%
	B	7/15/2003	0.325	0.325	0.020	0.203%	0.203%
	B	1/21/2003	0.3047	0.3047	-0.024	-0.243%	-0.243%
	B	8/5/2002	0.329	0.329	0.007	0.070%	0.070%
	B	3/2/2002	0.322	0.322	0.048	0.480%	0.480%
	B	9/7/2001	0.274	0.274	-0.059	-0.590%	-0.590%
	B	3/24/2001	0.333	0.333			
LPRM Card 1B-24-57	C	1/15/2004	0.187	0.187	0.066	0.660%	0.660%
	C	8/2/2003	0.121	0.121	-0.124	-1.240%	-1.240%
	C	2/9/2003	0.245	0.245	0.008	0.080%	0.080%
	C	8/30/2002	0.237	0.237	0.004	0.040%	0.040%
	C	3/13/2002	0.233	0.233	0.020	0.200%	0.200%
	C	9/23/2001	0.213	0.213	0.026	0.260%	0.260%
	C	4/8/2001	0.187	0.187			
LPRM Card 1B-32-57	D	1/1/2004	0.299	0.299	-0.007	-0.070%	-0.070%
	D	6/20/2003	0.306	0.306	-0.017	-0.170%	-0.170%
	D	12/31/2002	0.323	0.323	0.020	0.200%	0.200%
	D	7/13/2002	0.303	0.303	-0.025	-0.250%	-0.250%
	D	1/29/2002	0.328	0.328	0.024	0.240%	0.240%
	D	8/17/2001	0.304	0.304	-0.021	-0.210%	-0.210%
	D	2/25/2001	0.325	0.325			
LPRM Card 1B-16-49	E	2/9/2004	0.225	0.225	-0.012	-0.120%	-0.120%
	E	8/19/2003	0.237	0.237	0.040	0.400%	0.400%
	E	5/27/2003	0.197	0.197	0.083	0.830%	0.830%
	E	2/4/2003	0.114	0.114	-0.125	-1.250%	-1.250%
	E	1/10/2002	0.239	0.239	0.027	0.270%	0.270%
	E	7/30/2001	0.212	0.212			
LPRM Card 1B-24-49	F	1/29/2004	0.140	0.140	-0.077	-0.770%	-0.770%
	F	7/7/2003	0.217	0.217	0.035	0.350%	0.350%
	F	1/24/2003	0.182	0.182	-0.050	-0.500%	-0.500%
	F	8/10/2002	0.232	0.232	-0.008	-0.080%	-0.080%
	F	2/12/2002	0.240	0.240	0.000	0.000%	0.000%
	F	9/11/2001	0.240	0.240	-0.011	-0.110%	-0.110%
	F	3/24/2001	0.251	0.251			

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Table 17B:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 2B-16-33	A	7/20/2004	7.950	7.950	-0.048	-0.480%	-0.480%
	A	8/23/2003	7.998	7.998	-0.220	-2.200%	-2.200%
	A	5/29/2003	8.218	8.218	0.135	1.350%	1.350%
	A	12/10/2002	8.083	8.083	0.112	1.120%	1.120%
	A	7/2/2002	7.971	7.971	-0.011	-0.110%	-0.110%
	A	1/8/2002	7.982	7.982	0.019	0.190%	0.190%
	A	7/30/2001	7.963	7.963			
LPRM Card 2B-40-49	B	1/28/2004	8.142	8.142	0.055	0.550%	0.550%
	B	7/15/2003	8.087	8.087	-0.037	-0.370%	-0.370%
	B	1/21/2003	8.124	8.124	0.037	0.370%	0.370%
	B	8/5/2002	8.087	8.087	0.047	0.470%	0.470%
	B	3/2/2002	8.040	8.040	-0.107	-1.070%	-1.070%
	B	9/7/2001	8.147	8.147	0.039	0.390%	0.390%
	B	3/24/2001	8.108	8.108			
LPRM Card 2B-08-41	C	1/15/2004	7.986	7.986	-0.003	-0.030%	-0.030%
	C	8/2/2003	7.989	7.989	0.021	0.210%	0.210%
	C	2/9/2003	7.968	7.968	-0.004	-0.040%	-0.040%
	C	8/30/2002	7.972	7.972	-0.107	-1.070%	-1.070%
	C	3/13/2002	8.079	8.079	0.059	0.590%	0.590%
	C	9/23/2001	8.020	8.020	0.020	0.200%	0.200%
	C	4/8/2001	8.000	8.000			
LPRM Card 2B-16-41	D	1/1/2004	8.079	8.079	0.017	0.170%	0.170%
	D	6/20/2003	8.062	8.062	0.082	0.820%	0.820%
	D	12/31/2002	7.980	7.980	-0.130	-1.300%	-1.300%
	D	7/13/2002	8.110	8.110	0.033	0.330%	0.330%
	D	1/29/2002	8.077	8.077	0.076	0.760%	0.760%
	D	8/17/2001	8.001	8.001	-0.074	-0.740%	-0.740%
	D	2/25/2001	8.075	8.075			
LPRM Card 2B-48-49	E	2/9/2004	8.040	8.040	0.083	0.830%	0.830%
	E	8/19/2003	7.957	7.957	0.016	0.160%	0.160%
	E	5/27/2003	7.941	7.941	-0.177	-1.770%	-1.770%
	E	2/4/2003	8.118	8.118	0.134	1.340%	1.340%
	E	1/10/2002	7.984	7.984	0.036	0.360%	0.360%
	E	7/30/2001	7.948	7.948			
LPRM Card 3B-08-33	F	1/29/2004	7.862	7.862	-0.129	-1.290%	-1.290%
	F	7/7/2003	7.991	7.991	-0.032	-0.320%	-0.320%
	F	1/24/2003	8.023	8.023	0.031	0.310%	0.310%
	F	8/10/2002	7.992	7.992	-0.039	-0.390%	-0.390%
	F	2/12/2002	8.031	8.031	0.035	0.350%	0.350%
	F	9/11/2001	7.996	7.996	-0.089	-0.890%	-0.890%
	F	3/24/2001	8.085	8.085			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 17B:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 2B-16-33	A	7/20/2004	0.058	0.058	-0.001	-0.010%	-0.010%
	A	8/23/2003	0.059	0.059	0.001	0.010%	0.010%
	A	5/29/2003	0.058	0.058	-0.005	-0.050%	-0.050%
	A	12/10/2002	0.063	0.063	0.000	0.000%	0.000%
	A	7/2/2002	0.063	0.063	-0.015	-0.150%	-0.150%
	A	1/8/2002	0.078	0.078	0.007	0.070%	0.070%
	A	7/30/2001	0.071	0.071			
LPRM Card 2B-40-49	B	1/28/2004	0.260	0.260	0.021	0.210%	0.210%
	B	7/15/2003	0.239	0.239	0.010	0.100%	0.100%
	B	1/21/2003	0.229	0.229	-0.020	-0.200%	-0.200%
	B	8/5/2002	0.249	0.249	0.016	0.160%	0.160%
	B	3/2/2002	0.233	0.233	-0.060	-0.600%	-0.600%
	B	9/7/2001	0.293	0.293	0.042	0.420%	0.420%
	B	3/24/2001	0.251	0.251			
LPRM Card 2B-08-41	C	1/15/2004	0.241	0.241	-0.002	-0.020%	-0.020%
	C	8/2/2003	0.243	0.243	0.123	1.230%	1.230%
	C	2/9/2003	0.120	0.120	-0.157	-1.570%	-1.570%
	C	8/30/2002	0.277	0.277	-0.004	-0.040%	-0.040%
	C	3/13/2002	0.281	0.281	0.030	0.300%	0.300%
	C	9/23/2001	0.251	0.251	-0.022	-0.220%	-0.220%
	C	4/8/2001	0.273	0.273			
LPRM Card 2B-16-41	D	1/1/2004	0.245	0.245	0.017	0.170%	0.170%
	D	6/20/2003	0.228	0.228	0.000	0.000%	0.000%
	D	12/31/2002	0.228	0.228	-0.023	-0.230%	-0.230%
	D	7/13/2002	0.251	0.251	0.005	0.050%	0.050%
	D	1/29/2002	0.246	0.246	-0.005	-0.050%	-0.050%
	D	8/17/2001	0.251	0.251	0.032	0.320%	0.320%
	D	2/25/2001	0.219	0.219			
LPRM Card 2B-48-49	E	2/9/2004	0.231	0.231	-0.019	-0.190%	-0.190%
	E	8/19/2003	0.250	0.250	0.039	0.390%	0.390%
	E	5/27/2003	0.211	0.211	-0.036	-0.360%	-0.360%
	E	2/4/2003	0.247	0.247	0.020	0.200%	0.200%
	E	1/10/2002	0.227	0.227	-0.021	-0.210%	-0.210%
	E	7/30/2001	0.248	0.248			
LPRM Card 3B-08-33	F	1/29/2004	0.148	0.148	-0.100	-1.000%	-1.000%
	F	7/7/2003	0.248	0.248	0.056	0.560%	0.560%
	F	1/24/2003	0.192	0.192	-0.040	-0.400%	-0.400%
	F	8/10/2002	0.232	0.232	-0.032	-0.320%	-0.320%
	F	2/12/2002	0.264	0.264	0.037	0.370%	0.370%
	F	9/11/2001	0.227	0.227	-0.027	-0.270%	-0.270%
	F	3/24/2001	0.254	0.254			

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Table 17C:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 3B-48-33	A	7/20/2004	8.032	8.032	0.018	0.180%	0.180%
	A	8/23/2003	8.014	8.014	-0.045	-0.450%	-0.450%
	A	5/29/2003	8.059	8.059	0.015	0.150%	0.150%
	A	12/10/2002	8.044	8.044	0.021	0.210%	0.210%
	A	7/2/2002	8.023	8.023	0.015	0.150%	0.150%
	A	1/8/2002	8.008	8.008	-0.035	-0.350%	-0.350%
	A	7/30/2001	8.043	8.043			
LPRM Card 3B-24-33	B	1/28/2004	8.188	8.188	0.079	0.790%	0.790%
	B	7/15/2003	8.109	8.109	0.108	1.080%	1.080%
	B	1/21/2003	8.001	8.001	-0.035	-0.350%	-0.350%
	B	8/5/2002	8.036	8.036	0.018	0.180%	0.180%
	B	3/2/2002	8.018	8.018	-0.066	-0.660%	-0.660%
	B	9/7/2001	8.084	8.084	0.056	0.560%	0.560%
	B	3/24/2001	8.028	8.028			
LPRM Card 3B-40-41	C	1/15/2004	8.001	8.001	-0.064	-0.640%	-0.640%
	C	8/2/2003	8.065	8.065	0.060	0.600%	0.600%
	C	2/9/2003	8.005	8.005	0.006	0.060%	0.060%
	C	8/30/2002	7.999	7.999	-0.036	-0.360%	-0.360%
	C	3/13/2002	8.035	8.035	0.035	0.350%	0.350%
	C	9/23/2001	8.000	8.000	-0.010	-0.100%	-0.100%
	C	4/8/2001	8.010	8.010			
LPRM Card 3B-48-41	D	1/1/2004	8.039	8.039	-0.043	-0.430%	-0.430%
	D	6/20/2003	8.082	8.082	0.095	0.950%	0.950%
	D	12/31/2002	7.987	7.987	-0.015	-0.150%	-0.150%
	D	7/13/2002	8.002	8.002	-0.009	-0.090%	-0.090%
	D	1/29/2002	8.011	8.011	-0.168	-1.680%	-1.680%
	D	8/17/2001	8.179	8.179	0.118	1.180%	1.180%
	D	2/25/2001	8.061	8.061			
LPRM Card 3B-32-33	E	2/9/2004	8.139	8.139	0.023	0.230%	0.230%
	E	8/19/2003	8.116	8.116	-0.011	-0.110%	-0.110%
	E	5/27/2003	8.127	8.127	0.008	0.080%	0.080%
	E	2/4/2003	8.119	8.119	-0.024	-0.240%	-0.240%
	E	1/10/2002	8.143	8.143	0.011	0.110%	0.110%
	E	7/30/2001	8.132	8.132			
LPRM Card 4B-40-33	F	1/29/2004	8.033	8.033	-0.004	-0.040%	-0.040%
	F	7/7/2003	8.037	8.037	0.007	0.070%	0.070%
	F	1/24/2003	8.030	8.030	-0.041	-0.410%	-0.410%
	F	8/10/2002	8.071	8.071	0.060	0.600%	0.600%
	F	2/12/2002	8.011	8.011	-0.121	-1.210%	-1.210%
	F	9/11/2001	8.132	8.132	0.119	1.190%	1.190%
	F	3/24/2001	8.013	8.013			

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Table 17C:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 3B-48-33	A	7/20/2004	0.263	0.263	-0.001	-0.010%	-0.010%
	A	8/23/2003	0.264	0.264	0.016	0.160%	0.160%
	A	5/29/2003	0.248	0.248	0.004	0.040%	0.040%
	A	12/10/2002	0.244	0.244	-0.022	-0.220%	-0.220%
	A	7/2/2002	0.266	0.266	0.026	0.260%	0.260%
	A	1/8/2002	0.240	0.240	-0.031	-0.310%	-0.310%
	A	7/30/2001	0.271	0.271			
LPRM Card 3B-24-33	B	1/28/2004	0.218	0.218	-0.013	-0.130%	-0.130%
	B	7/15/2003	0.231	0.231	0.007	0.070%	0.070%
	B	1/21/2003	0.224	0.224	-0.018	-0.180%	-0.180%
	B	8/5/2002	0.242	0.242	0.002	0.020%	0.020%
	B	3/2/2002	0.240	0.240	0.015	0.150%	0.150%
	B	9/7/2001	0.225	0.225	-0.013	-0.130%	-0.130%
	B	3/24/2001	0.238	0.238			
LPRM Card 3B-40-41	C	1/15/2004	0.290	0.290	0.020	0.200%	0.200%
	C	8/2/2003	0.270	0.270	-0.050	-0.500%	-0.500%
	C	2/9/2003	0.320	0.320	0.006	0.060%	0.060%
	C	8/30/2002	0.314	0.314	0.003	0.030%	0.030%
	C	3/13/2002	0.311	0.311	0.016	0.160%	0.160%
	C	9/23/2001	0.295	0.295	0.002	0.020%	0.020%
	C	4/8/2001	0.293	0.293			
LPRM Card 3B-48-41	D	1/1/2004	0.227	0.227	0.038	0.380%	0.380%
	D	6/20/2003	0.189	0.189	-0.037	-0.370%	-0.370%
	D	12/31/2002	0.226	0.226	0.003	0.030%	0.030%
	D	7/13/2002	0.223	0.223	0.024	0.240%	0.240%
	D	1/29/2002	0.199	0.199	-0.082	-0.820%	-0.820%
	D	8/17/2001	0.281	0.281	0.056	0.560%	0.560%
	D	2/25/2001	0.225	0.225			
LPRM Card 3B-32-33	E	2/9/2004	0.460	0.460	0.006	0.060%	0.060%
	E	8/19/2003	0.454	0.454	0.018	0.180%	0.180%
	E	5/27/2003	0.436	0.436	-0.029	-0.290%	-0.290%
	E	2/4/2003	0.465	0.465	0.024	0.240%	0.240%
	E	1/10/2002	0.441	0.441	0.008	0.080%	0.080%
	E	7/30/2001	0.433	0.433			
LPRM Card 4B-40-33	F	1/29/2004	0.233	0.233	-0.011	-0.110%	-0.110%
	F	7/7/2003	0.244	0.244	0.049	0.490%	0.490%
	F	1/24/2003	0.195	0.195	-0.029	-0.290%	-0.290%
	F	8/10/2002	0.224	0.224	-0.019	-0.190%	-0.190%
	F	2/12/2002	0.243	0.243	0.019	0.190%	0.190%
	F	9/11/2001	0.224	0.224	-0.003	-0.030%	-0.030%
	F	3/24/2001	0.227	0.227			

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Table 17D:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM card 4B-32-17	A	7/20/2004	7.975	7.975	0.011	0.110%	0.110%
	A	8/23/2003	7.964	7.964	-0.110	-1.100%	-1.100%
	A	5/29/2003	8.074	8.074	-0.078	-0.780%	-0.780%
	A	12/10/2002	8.152	8.152	0.162	1.620%	1.620%
	A	7/2/2002	7.990	7.990	0.011	0.110%	0.110%
	A	1/8/2002	7.979	7.979	0.004	0.040%	0.040%
	A	7/30/2001	7.975	7.975			
LPRM Card 4B-56-33	B	1/28/2004	8.118	8.118	-0.036	-0.360%	-0.360%
	B	7/15/2003	8.154	8.154	0.123	1.230%	1.230%
	B	1/21/2003	8.031	8.031	-0.017	-0.170%	-0.170%
	B	8/5/2002	8.048	8.048	0.021	0.210%	0.210%
	B	3/2/2002	8.027	8.027	0.006	0.060%	0.060%
	B	9/7/2001	8.021	8.021	0.004	0.040%	0.040%
	B	3/24/2001	8.017	8.017			
LPRM card 4B-24-25	C	1/15/2004	8.027	8.027	-0.098	-0.980%	-0.980%
	C	8/2/2003	8.125	8.125	0.102	1.020%	1.020%
	C	2/9/2003	8.023	8.023	0.022	0.220%	0.220%
	C	8/30/2002	8.001	8.001	-0.017	-0.170%	-0.170%
	C	3/13/2002	8.018	8.018	-0.007	-0.070%	-0.070%
	C	9/23/2001	8.025	8.025	-0.016	-0.160%	-0.160%
	C	4/8/2001	8.041	8.041			
LPRM Card 4B-32-25	D	1/1/2004	7.998	7.998	0.043	0.430%	0.430%
	D	6/20/2003	7.955	7.955	0.003	0.030%	0.030%
	D	12/31/2002	7.952	7.952	-0.016	-0.160%	-0.160%
	D	7/13/2002	7.968	7.968	-0.027	-0.270%	-0.270%
	D	1/29/2002	7.995	7.995	-0.091	-0.910%	-0.910%
	D	8/17/2001	8.086	8.086	0.119	1.190%	1.190%
	D	2/25/2001	7.967	7.967			
LPRM card 4B-16-17	E	2/9/2004	8.100	8.100	-0.011	-0.110%	-0.110%
	E	8/19/2003	8.111	8.111	0.011	0.110%	0.110%
	E	5/27/2003	8.100	8.100	0.074	0.740%	0.740%
	E	2/4/2003	8.026	8.026	-0.044	-0.440%	-0.440%
	E	1/10/2002	8.070	8.070	-0.004	-0.040%	-0.040%
	E	7/30/2001	8.074	8.074			
LPRM card 5B-24-17	F	1/29/2004	8.280	8.280	0.087	0.870%	0.870%
	F	7/7/2003	8.193	8.193	-0.006	-0.060%	-0.060%
	F	1/24/2003	8.199	8.199	-0.037	-0.370%	-0.370%
	F	8/10/2002	8.236	8.236	0.327	3.270%	3.270%
	F	2/12/2002	7.909	7.909	-0.003	-0.030%	-0.030%
	F	9/11/2001	7.912	7.912	-0.009	-0.090%	-0.090%
	F	3/24/2001	7.921	7.921			

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Table 17D:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM card 4B-32-17	A	7/20/2004	0.308	0.308	-0.018	-0.180%	-0.180%
	A	8/23/2003	0.326	0.326	0.016	0.160%	0.160%
	A	5/29/2003	0.310	0.310	0.038	0.380%	0.380%
	A	12/10/2002	0.272	0.272	-0.057	-0.570%	-0.570%
	A	7/2/2002	0.329	0.329	0.014	0.140%	0.140%
	A	1/8/2002	0.315	0.315	0.016	0.160%	0.160%
	A	7/30/2001	0.299	0.299			
LPRM Card 4B-56-33	B	1/28/2004	0.235	0.235	-0.009	-0.090%	-0.090%
	B	7/15/2003	0.244	0.244	0.022	0.220%	0.220%
	B	1/21/2003	0.222	0.222	0.002	0.020%	0.020%
	B	8/5/2002	0.220	0.220	-0.017	-0.170%	-0.170%
	B	3/2/2002	0.237	0.237	-0.005	-0.050%	-0.050%
	B	9/7/2001	0.242	0.242	-0.002	-0.020%	-0.020%
	B	3/24/2001	0.244	0.244			
LPRM card 4B-24-25	C	1/15/2004	0.293	0.293	0.072	0.720%	0.720%
	C	8/2/2003	0.221	0.221	0.002	0.020%	0.020%
	C	2/9/2003	0.219	0.219	-0.101	-1.010%	-1.010%
	C	8/30/2002	0.320	0.320	-0.012	-0.120%	-0.120%
	C	3/13/2002	0.332	0.332	0.015	0.150%	0.150%
	C	9/23/2001	0.317	0.317	0.022	0.220%	0.220%
	C	4/8/2001	0.295	0.295			
LPRM Card 4B-32-25	D	1/1/2004	0.226	0.226	0.011	0.110%	0.110%
	D	6/20/2003	0.215	0.215	-0.033	-0.330%	-0.330%
	D	12/31/2002	0.248	0.248	-0.002	-0.020%	-0.020%
	D	7/13/2002	0.250	0.250	0.015	0.150%	0.150%
	D	1/29/2002	0.235	0.235	-0.009	-0.090%	-0.090%
	D	8/17/2001	0.244	0.244	-0.019	-0.190%	-0.190%
	D	2/25/2001	0.263	0.263			
LPRM card 4B-16-17	E	2/9/2004	0.235	0.235	-0.014	-0.140%	-0.140%
	E	8/19/2003	0.249	0.249	0.000	0.000%	0.000%
	E	5/27/2003	0.249	0.249	0.013	0.130%	0.130%
	E	2/4/2003	0.236	0.236	-0.014	-0.140%	-0.140%
	E	1/10/2002	0.250	0.250	0.007	0.070%	0.070%
	E	7/30/2001	0.243	0.243			
LPRM card 5B-24-17	F	1/29/2004	0.155	0.155	-0.032	-0.320%	-0.320%
	F	7/7/2003	0.187	0.187	0.018	0.180%	0.180%
	F	1/24/2003	0.169	0.169	-0.434	-4.340%	-4.340%
	F	8/10/2002	0.186	0.603	-0.030	-0.300%	-0.300%
	F	2/12/2002	0.216	0.216	-0.010	-0.100%	-0.100%
	F	9/11/2001	0.226	0.226	-0.054	-0.540%	-0.540%
	F	3/24/2001	0.280	0.280			

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Table 17E:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 1D-16-49	A	7/20/2004	8.029	8.029	-0.136	-1.360%	-1.360%
	A	8/23/2003	8.165	8.165	0.071	0.710%	0.710%
	A	5/29/2003	8.094	8.094	0.081	0.810%	0.810%
	A	12/10/2002	8.013	8.013	0.056	0.560%	0.560%
	A	7/2/2002	7.957	7.957	-0.282	-2.820%	-2.820%
	A	1/8/2002	8.239	8.239	0.289	2.890%	2.890%
	A	7/30/2001	7.950	7.950			
LPRM Card 5B-08-17	B	1/28/2004	8.075	8.075	0.058	0.580%	0.580%
	B	7/15/2003	8.017	8.017	-0.031	-0.310%	-0.310%
	B	1/21/2003	8.048	8.048	0.010	0.100%	0.100%
	B	8/5/2002	8.038	8.038	0.066	0.660%	0.660%
	B	3/2/2002	7.972	7.972	-0.185	-1.850%	-1.850%
	B	9/7/2001	8.157	8.157	0.101	1.010%	1.010%
	B	3/24/2001	8.056	8.056			
LPRM Card 5B-56-25	C	1/15/2004	7.950	7.950	-0.035	-0.350%	-0.350%
	C	8/2/2003	7.985	7.985	0.032	0.320%	0.320%
	C	2/9/2003	7.953	7.953	-0.030	-0.300%	-0.300%
	C	8/30/2002	7.998	7.983	-0.041	-0.407%	-0.407%
	C	3/13/2002	8.039	8.039	0.029	0.290%	0.290%
	C	9/23/2001	8.010	8.010	-0.033	-0.330%	-0.330%
	C	4/8/2001	8.043	8.043			
LPRM Card 5B-16-09	D	1/1/2004	8.034	8.034	0.045	0.450%	0.450%
	D	6/20/2003	7.989	7.989	-0.034	-0.340%	-0.340%
	D	12/31/2002	8.023	8.023	0.215	2.150%	2.150%
	D	7/13/2002	7.808	7.808	-0.163	-1.630%	-1.630%
	D	1/29/2002	7.971	7.971	-0.048	-0.480%	-0.480%
	D	8/17/2001	8.019	8.019	-0.054	-0.540%	-0.540%
	D	2/25/2001	8.073	8.073			
LPRM Card 5B-48-17	E	2/9/2004	8.019	8.019	-0.136	-1.360%	-1.360%
	E	8/19/2003	8.155	8.155	0.001	0.010%	0.010%
	E	5/27/2003	8.154	8.154	0.105	1.050%	1.050%
	E	2/4/2003	8.049	8.049	-0.070	-0.700%	-0.700%
	E	1/10/2002	8.119	8.119	0.077	0.770%	0.770%
	E	7/30/2001	8.042	8.042			
LPRM Card 6B-56-17	F	1/29/2004	8.016	8.016	0.009	0.090%	0.090%
	F	7/7/2003	8.007	8.007	-0.065	-0.650%	-0.650%
	F	1/24/2003	8.072	8.072	-0.129	-1.290%	-1.290%
	F	8/10/2002	8.201	8.201	0.196	1.960%	1.960%
	F	2/12/2002	8.005	8.005	0.011	0.110%	0.110%
	F	9/11/2001	7.994	7.994	-0.023	-0.230%	-0.230%
	F	3/24/2001	8.017	8.017			

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Table 17E:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 1D-16-49	A	7/20/2004	0.229	0.229	-0.052	-0.520%	-0.520%
	A	8/23/2003	0.281	0.281	0.045	0.450%	0.450%
	A	5/29/2003	0.236	0.236	0.038	0.380%	0.380%
	A	12/10/2002	0.198	0.198	-0.046	-0.460%	-0.460%
	A	7/2/2002	0.244	0.244	0.004	0.040%	0.040%
	A	1/8/2002	0.240	0.240	-0.003	-0.030%	-0.030%
	A	7/30/2001	0.243	0.243			
LPRM Card 5B-08-17	B	1/28/2004	0.196	0.196	-0.041	-0.410%	-0.410%
	B	7/15/2003	0.237	0.237	0.029	0.290%	0.290%
	B	1/21/2003	0.208	0.208	-0.022	-0.220%	-0.220%
	B	8/5/2002	0.230	0.230	0.023	0.230%	0.230%
	B	3/2/2002	0.207	0.207	-0.017	-0.170%	-0.170%
	B	9/7/2001	0.224	0.224	-0.002	-0.020%	-0.020%
	B	3/24/2001	0.226	0.226			
LPRM Card 5B-56-25	C	1/15/2004	0.246	0.246	0.032	0.320%	0.320%
	C	8/2/2003	0.214	0.214	0.014	0.140%	0.140%
	C	2/9/2003	0.200	0.200	-0.061	-0.610%	-0.610%
	C	8/30/2002	0.261	0.261	-0.032	-0.320%	-0.320%
	C	3/13/2002	0.293	0.293	0.074	0.740%	0.740%
	C	9/23/2001	0.219	0.219	-0.027	-0.270%	-0.270%
	C	4/8/2001	0.246	0.246			
LPRM Card 5B-16-09	D	1/1/2004	0.201	0.201	0.012	0.120%	0.120%
	D	6/20/2003	0.189	0.189	-0.033	-0.330%	-0.330%
	D	12/31/2002	0.222	0.222	0.035	0.350%	0.350%
	D	7/13/2002	0.187	0.187	-0.029	-0.290%	-0.290%
	D	1/29/2002	0.216	0.216	0.000	0.000%	0.000%
	D	8/17/2001	0.216	0.216	0.046	0.460%	0.460%
	D	2/25/2001	0.170	0.170			
LPRM Card 5B-48-17	E	2/9/2004	0.280	0.280	0.048	0.480%	0.480%
	E	8/19/2003	0.232	0.232	0.012	0.120%	0.120%
	E	5/27/2003	0.220	0.220	0.013	0.130%	0.130%
	E	2/4/2003	0.207	0.207	0.005	0.050%	0.050%
	E	1/10/2002	0.202	0.202	-0.036	-0.360%	-0.360%
	E	7/30/2001	0.238	0.238			
LPRM Card 6B-56-17	F	1/29/2004	0.244	0.244	-0.004	-0.040%	-0.040%
	F	7/7/2003	0.248	0.248	0.022	0.220%	0.220%
	F	1/24/2003	0.226	0.226	-0.002	-0.020%	-0.020%
	F	8/10/2002	0.228	0.228	-0.020	-0.200%	-0.200%
	F	2/12/2002	0.248	0.248	0.001	0.010%	0.010%
	F	9/11/2001	0.247	0.247	0.003	0.030%	0.030%
	F	3/24/2001	0.244	0.244			

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Table 17F:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 2D-48-49	A	7/20/2004	8.055	8.055	0.014	0.140%	0.140%
	A	8/23/2003	8.041	8.041	-0.185	-1.850%	-1.850%
	A	5/29/2003	8.226	8.226	0.194	1.940%	1.940%
	A	12/10/2002	8.032	8.032	0.026	0.260%	0.260%
	A	7/2/2002	8.006	8.006	-0.098	-0.980%	-0.980%
	A	1/8/2002	8.104	8.104	0.059	0.590%	0.590%
	A	7/30/2001	8.045	8.045			
LPRM Card 6B-40-17	B	1/28/2004	8.029	8.029	-0.008	-0.080%	-0.080%
	B	7/15/2003	8.037	8.037	-0.063	-0.630%	-0.630%
	B	1/21/2003	8.100	8.100	0.076	0.760%	0.760%
	B	8/5/2002	8.024	8.024	-0.044	-0.440%	-0.440%
	B	3/2/2002	8.068	8.068	0.081	0.810%	0.810%
	B	9/7/2001	7.987	7.987	-0.038	-0.380%	-0.380%
	B	3/24/2001	8.025	8.025			
LPRM Card 6B-40-09	C	1/15/2004	2.979	2.979	-5.000	-50.000%	outlier
	C	8/2/2003	7.979	7.979	-0.063	-0.630%	-0.630%
	C	2/9/2003	8.042	8.042	0.052	0.520%	0.520%
	C	8/30/2002	7.990	7.990	0.050	0.500%	0.500%
	C	3/13/2002	7.940	7.940	-0.140	-1.400%	-1.400%
	C	9/23/2001	8.080	8.080	0.053	0.530%	0.530%
	C	4/8/2001	8.027	8.027			
LPRM Card 6B-48-09	D	1/1/2004	8.045	8.045	-0.003	-0.030%	-0.030%
	D	6/20/2003	8.048	8.048	-0.016	-0.160%	-0.160%
	D	12/31/2002	8.064	8.064	0.030	0.300%	0.300%
	D	7/13/2002	8.034	8.034	-0.028	-0.280%	-0.280%
	D	1/29/2002	8.062	8.062	0.030	0.300%	0.300%
	D	8/17/2001	8.032	8.032	0.034	0.340%	0.340%
	D	2/25/2001	7.998	7.998			
LPRM Card 1D-32-49	E	2/9/2004	7.990	7.990	0.037	0.370%	0.370%
	E	8/19/2003	7.953	7.953	-0.059	-0.590%	-0.590%
	E	5/27/2003	8.012	8.012	-0.107	-1.070%	-1.070%
	E	2/4/2003	8.119	8.119	0.138	1.380%	1.380%
	E	1/10/2002	7.981	7.981	0.048	0.480%	0.480%
	E	7/30/2001	7.933	7.933			
LPRM Card 1D-08-49	F	1/29/2004	8.000	8.000	-0.024	-0.240%	-0.240%
	F	7/7/2003	8.024	8.024	0.038	0.380%	0.380%
	F	1/24/2003	7.986	7.986	-0.020	-0.200%	-0.200%
	F	8/10/2002	8.006	8.006	-0.003	-0.030%	-0.030%
	F	2/12/2002	8.009	8.009	-0.041	-0.410%	-0.410%
	F	9/11/2001	8.050	8.050	0.038	0.380%	0.380%
	F	3/24/2001	8.012	8.012			

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Table 17F:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 2D-48-49	A	7/20/2004	0.293	0.293	0.011	0.110%	0.110%
	A	8/23/2003	0.282	0.282	-0.018	-0.180%	-0.180%
	A	5/29/2003	0.300	0.300	-0.011	-0.110%	-0.110%
	A	12/10/2002	0.311	0.311	0.010	0.100%	0.100%
	A	7/2/2002	0.301	0.301	-0.059	-0.590%	-0.590%
	A	1/8/2002	0.360	0.360	0.039	0.390%	0.390%
	A	7/30/2001	0.321	0.321			
LPRM Card 6B-40-17	B	1/28/2004	0.184	0.184	-0.044	-0.440%	-0.440%
	B	7/15/2003	0.228	0.228	-0.010	-0.100%	-0.100%
	B	1/21/2003	0.238	0.238	0.002	0.020%	0.020%
	B	8/5/2002	0.236	0.236	0.017	0.170%	0.170%
	B	3/2/2002	0.219	0.219	-0.024	-0.240%	-0.240%
	B	9/7/2001	0.243	0.243	-0.008	-0.080%	-0.080%
	B	3/24/2001	0.251	0.251			
LPRM Card 6B-40-09	C	1/15/2004	0.225	0.225	0.005	0.050%	0.050%
	C	8/2/2003	0.220	0.220	-0.075	-0.750%	-0.750%
	C	2/9/2003	0.295	0.295	0.058	0.580%	0.580%
	C	8/30/2002	0.237	0.237	0.002	0.020%	0.020%
	C	3/13/2002	0.235	0.235	0.008	0.080%	0.080%
	C	9/23/2001	0.227	0.227	-0.012	-0.120%	-0.120%
	C	4/8/2001	0.239	0.239			
LPRM Card 6B-48-09	D	1/1/2004	0.226	0.226	0.003	0.030%	0.030%
	D	6/20/2003	0.223	0.223	-0.026	-0.260%	-0.260%
	D	12/31/2002	0.249	0.249	-0.025	-0.250%	-0.250%
	D	7/13/2002	0.274	0.274	0.042	0.420%	0.420%
	D	1/29/2002	0.232	0.232	0.003	0.030%	0.030%
	D	8/17/2001	0.229	0.229	-0.022	-0.220%	-0.220%
	D	2/25/2001	0.251	0.251			
LPRM Card 1D-32-49	E	2/9/2004	0.305	0.305	-0.013	-0.130%	-0.130%
	E	8/19/2003	0.318	0.318	-0.029	-0.290%	-0.290%
	E	5/27/2003	0.347	0.347	0.014	0.140%	0.140%
	E	2/4/2003	0.333	0.333	0.023	0.230%	0.230%
	E	1/10/2002	0.310	0.310	-0.027	-0.270%	-0.270%
	E	7/30/2001	0.337	0.337			
LPRM Card 1D-08-49	F	1/29/2004	0.223	0.223	-0.023	-0.230%	-0.230%
	F	7/7/2003	0.246	0.246	0.007	0.070%	0.070%
	F	1/24/2003	0.239	0.239	-0.017	-0.170%	-0.170%
	F	8/10/2002	0.256	0.256	0.021	0.210%	0.210%
	F	2/12/2002	0.235	0.235	0.013	0.130%	0.130%
	F	9/11/2001	0.222	0.222	-0.014	-0.140%	-0.140%
	F	3/24/2001	0.236	0.236			

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Table 17G:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 3D-32-33	A	7/20/2004	7.971	7.971	-0.004	-0.040%	-0.040%
	A	8/23/2003	7.975	7.975	-0.005	-0.050%	-0.050%
	A	5/29/2003	7.980	7.980	-0.066	-0.660%	-0.660%
	A	12/10/2002	8.046	8.046	0.063	0.630%	0.630%
	A	7/2/2002	7.983	7.983	0.031	0.310%	0.310%
	A	1/8/2002	7.952	7.952	0.021	0.210%	0.210%
	A	7/30/2001	7.931	7.931			
LPRM Card 1D-24-49	B	1/28/2004	8.005	8.005	0.204	2.040%	2.040%
	B	7/15/2003	7.801	7.801	-0.225	-2.250%	-2.250%
	B	1/21/2003	8.026	8.026	-0.001	-0.010%	-0.010%
	B	8/5/2002	8.027	8.027	0.000	0.000%	0.000%
	B	3/2/2002	8.027	8.027	0.007	0.070%	0.070%
	B	9/7/2001	8.020	8.020	-0.005	-0.050%	-0.050%
	B	3/24/2001	8.025	8.025			
LPRM Card 1D-40-57	C	1/15/2004	8.020	8.020	-0.047	-0.470%	-0.470%
	C	8/2/2003	8.067	8.067	0.082	0.820%	0.820%
	C	2/9/2003	7.985	7.985	-0.011	-0.110%	-0.110%
	C	8/30/2002	7.996	7.996	0.091	0.910%	0.910%
	C	3/13/2002	7.905	7.905	-0.074	-0.740%	-0.740%
	C	9/23/2001	7.979	7.979	-0.003	-0.030%	-0.030%
	C	4/8/2001	7.982	7.982			
LPRM Card 1D-16-57	D	1/1/2004	7.886	7.886	-0.063	-0.630%	-0.630%
	D	6/20/2003	7.949	7.949	0.052	0.520%	0.520%
	D	12/31/2002	7.897	7.897	0.010	0.100%	0.100%
	D	7/13/2002	7.887	7.887	-0.084	-0.840%	-0.840%
	D	1/29/2002	7.971	7.971	0.061	0.610%	0.610%
	D	8/17/2001	7.910	7.910	-0.059	-0.590%	-0.590%
	D	2/25/2001	7.969	7.969			
LPRM Card 2D-16-33	E	2/9/2004	8.026	8.026	0.005	0.050%	0.050%
	E	8/19/2003	8.021	8.021	0.007	0.070%	0.070%
	E	5/27/2003	8.014	8.014	-0.017	-0.170%	-0.170%
	E	2/4/2003	8.031	8.031			
	E	1/10/2002	NA	NA			
	E	7/30/2001	7.978	7.978			
LPRM Card 2D-40-49	F	1/29/2004	8.016	8.016	-0.011	-0.110%	-0.110%
	F	7/7/2003	8.027	8.027	0.029	0.290%	0.290%
	F	1/24/2003	7.998	7.998	0.028	0.280%	0.280%
	F	8/10/2002	7.970	7.970	-0.026	-0.260%	-0.260%
	F	2/12/2002	7.996	7.996	-0.027	-0.270%	-0.270%
	F	9/11/2001	8.023	8.023	0.017	0.170%	0.170%
	F	3/24/2001	8.006	8.006			

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Table 17G:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 3D-32-33	A	7/20/2004	0.273	0.273	0.006	0.060%	0.060%
	A	8/23/2003	0.267	0.267	0.031	0.310%	0.310%
	A	5/29/2003	0.236	0.236	-0.004	-0.040%	-0.040%
	A	12/10/2002	0.240	0.240	-0.018	-0.180%	-0.180%
	A	7/2/2002	0.258	0.258	0.006	0.060%	0.060%
	A	1/8/2002	0.252	0.252	0.001	0.010%	0.010%
	A	7/30/2001	0.251	0.251			
LPRM Card 1D-24-49	B	1/28/2004	0.244	0.244	0.019	0.190%	0.190%
	B	7/15/2003	0.225	0.225	-0.015	-0.150%	-0.150%
	B	1/21/2003	0.240	0.240	0.010	0.100%	0.100%
	B	8/5/2002	0.230	0.230	0.011	0.110%	0.110%
	B	3/2/2002	0.219	0.219	-0.016	-0.160%	-0.160%
	B	9/7/2001	0.235	0.235	0.000	0.000%	0.000%
	B	3/24/2001	0.235	0.235			
LPRM Card 1D-40-57	C	1/15/2004	0.236	0.236	0.057	0.570%	0.570%
	C	8/2/2003	0.179	0.179	-0.063	-0.630%	-0.630%
	C	2/9/2003	0.242	0.242	0.005	0.050%	0.050%
	C	8/30/2002	0.237	0.237	0.017	0.170%	0.170%
	C	3/13/2002	0.220	0.220	0.039	0.390%	0.390%
	C	9/23/2001	0.181	0.181	-0.047	-0.470%	-0.470%
	C	4/8/2001	0.228	0.228			
LPRM Card 1D-16-57	D	1/1/2004	0.240	0.240	0.013	0.130%	0.130%
	D	6/20/2003	0.227	0.227	-0.011	-0.110%	-0.110%
	D	12/31/2002	0.238	0.238	0.007	0.070%	0.070%
	D	7/13/2002	0.231	0.231	-0.004	-0.040%	-0.040%
	D	1/29/2002	0.235	0.235	0.004	0.040%	0.040%
	D	8/17/2001	0.231	0.231	-0.050	-0.500%	-0.500%
	D	2/25/2001	0.281	0.281			
LPRM Card 2D-16-33	E	2/9/2004	0.231	0.231	-0.005	-0.050%	-0.050%
	E	8/19/2003	0.236	0.236	0.143	1.430%	1.430%
	E	5/27/2003	0.093	0.093	-0.108	-1.080%	-1.080%
	E	2/4/2003	0.201	0.201			
	E	1/10/2002	NA	NA			
	E	7/30/2001	0.243	0.243			
LPRM Card 2D-40-49	F	1/29/2004	0.403	0.403	-0.030	-0.300%	-0.300%
	F	7/7/2003	0.433	0.433	0.041	0.410%	0.410%
	F	1/24/2003	0.392	0.392	-0.069	-0.690%	-0.690%
	F	8/10/2002	0.461	0.461	-0.011	-0.110%	-0.110%
	F	2/12/2002	0.472	0.472	0.086	0.860%	0.860%
	F	9/11/2001	0.386	0.386	-0.078	-0.780%	-0.780%
	F	3/24/2001	0.464	0.464			

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Table 17H:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 4D-16-17	A	7/20/2004	8.065	8.065	0.022	0.220%	0.220%
	A	8/23/2003	8.043	8.043	-0.026	-0.260%	-0.260%
	A	5/29/2003	8.069	8.069	0.017	0.170%	0.170%
	A	12/10/2002	8.052	8.052	-0.027	-0.270%	-0.270%
	A	7/2/2002	8.079	8.079	0.022	0.220%	0.220%
	A	1/8/2002	8.057	8.057	-0.021	-0.210%	-0.210%
	A	7/30/2001	8.078	8.078			
LPRM Card 3D-08-33	B	1/28/2004	8.079	8.079	0.041	0.410%	0.410%
	B	7/15/2003	8.038	8.038	-0.012	-0.120%	-0.120%
	B	1/21/2003	8.050	8.050	0.050	0.500%	0.500%
	B	8/5/2002	8.000	8.000	-0.024	-0.240%	-0.240%
	B	3/2/2002	8.024	8.024	-0.069	-0.690%	-0.690%
	B	9/7/2001	8.093	8.093	0.052	0.520%	0.520%
	B	3/24/2001	8.041	8.041			
LPRM Card 2D-24-41	C	1/15/2004	8.017	8.017	-0.041	-0.410%	-0.410%
	C	8/2/2003	8.058	8.058	-0.067	-0.670%	-0.670%
	C	2/9/2003	8.125	8.125	0.129	1.290%	1.290%
	C	8/30/2002	7.996	7.996	-0.065	-0.650%	-0.650%
	C	3/13/2002	8.061	8.061	-0.040	-0.400%	-0.400%
	C	9/23/2001	8.101	8.101	0.093	0.930%	0.930%
	C	4/8/2001	8.008	8.008			
LPRM Card 3D-32-41	D	1/1/2004	7.889	7.889	0.027	0.270%	0.270%
	D	6/20/2003	7.862	7.862	-0.064	-0.640%	-0.640%
	D	12/31/2002	7.926	7.926	0.093	0.930%	0.930%
	D	7/13/2002	7.833	7.833	-0.199	-1.990%	-1.990%
	D	1/29/2002	8.032	8.032	0.000	0.000%	0.000%
	D	8/17/2001	8.032	8.032	-0.139	-1.390%	-1.390%
	D	2/25/2001	8.171	8.171			
LPRM Card 3D-48-33	E	2/9/2004	7.929	7.929	-0.016	-0.160%	-0.160%
	E	8/19/2003	7.945	7.945	0.116	1.160%	1.160%
	E	5/27/2003	7.829	7.829	-0.140	-1.400%	-1.400%
	E	2/4/2003	7.969	7.969			
	E	1/10/2002	NA	NA			
	E	7/30/2001	7.956	7.956			
LPRM Card 3D-24-33	F	1/29/2004	7.956	7.956	0.071	0.710%	0.710%
	F	7/7/2003	7.885	7.885	-0.158	-1.580%	-1.580%
	F	1/24/2003	8.043	8.043	0.047	0.470%	0.470%
	F	8/10/2002	7.996	7.996	-0.005	-0.050%	-0.050%
	F	2/12/2002	8.001	8.001	0.015	0.150%	0.150%
	F	9/11/2001	7.986	7.986	-0.026	-0.260%	-0.260%
	F	3/24/2001	8.012	8.012			

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Table 17H:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 4D-16-17	A	7/20/2004	0.247	0.247	-0.015	-0.150%	-0.150%
	A	8/23/2003	0.262	0.262	0.024	0.240%	0.240%
	A	5/29/2003	0.238	0.238	0.009	0.090%	0.090%
	A	12/10/2002	0.229	0.229	-0.021	-0.210%	-0.210%
	A	7/2/2002	0.250	0.250	-0.003	-0.030%	-0.030%
	A	1/8/2002	0.253	0.253	0.020	0.200%	0.200%
	A	7/30/2001	0.233	0.233			
LPRM Card 3D-08-33	B	1/28/2004	0.235	0.235	-0.012	-0.120%	-0.120%
	B	7/15/2003	0.247	0.247	0.028	0.280%	0.280%
	B	1/21/2003	0.219	0.219	-0.015	-0.150%	-0.150%
	B	8/5/2002	0.234	0.234	0.009	0.090%	0.090%
	B	3/2/2002	0.225	0.225	0.005	0.050%	0.050%
	B	9/7/2001	0.220	0.220	-0.010	-0.100%	-0.100%
	B	3/24/2001	0.230	0.230			
LPRM Card 2D-24-41	C	1/15/2004	0.242	0.242	0.021	0.210%	0.210%
	C	8/2/2003	0.221	0.221	0.030	0.300%	0.300%
	C	2/9/2003	0.191	0.191	-0.059	-0.590%	-0.590%
	C	8/30/2002	0.250	0.250	-0.054	-0.540%	-0.540%
	C	3/13/2002	0.304	0.304	0.100	1.000%	1.000%
	C	9/23/2001	0.204	0.204	-0.017	-0.170%	-0.170%
	C	4/8/2001	0.221	0.221			
LPRM Card 3D-32-41	D	1/1/2004	0.287	0.287	-0.005	-0.050%	-0.050%
	D	6/20/2003	0.292	0.292	-0.018	-0.180%	-0.180%
	D	12/31/2002	0.310	0.310	0.015	0.150%	0.150%
	D	7/13/2002	0.295	0.295			
	D	1/29/2002	*	*			
	D	8/17/2001	0.204	0.204	-0.011	-0.110%	-0.110%
	D	2/25/2001	0.215	0.215			
LPRM Card 3D-48-33	E	2/9/2004	0.225	0.225	-0.010	-0.100%	-0.100%
	E	8/19/2003	0.235	0.235	0.069	0.690%	0.690%
	E	5/27/2003	0.166	0.166	-0.063	-0.630%	-0.630%
	E	2/4/2003	0.229	0.229			
	E	1/10/2002	NA	NA			
	E	7/30/2001	0.231	0.231			
LPRM Card 3D-24-33	F	1/29/2004	0.261	0.261	0.002	0.020%	0.020%
	F	7/7/2003	0.259	0.259	0.025	0.250%	0.250%
	F	1/24/2003	0.234	0.234	-0.027	-0.270%	-0.270%
	F	8/10/2002	0.261	0.261	-0.045	-0.450%	-0.450%
	F	2/12/2002	0.306	0.306	0.036	0.360%	0.360%
	F	9/11/2001	0.270	0.270	0.038	0.380%	0.380%
	F	3/24/2001	0.232	0.232			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 17I:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 5D-48-17	A	7/20/2004	7.969	7.969	-0.259	-2.590%	-2.590%
	A	8/23/2003	8.228	8.228	0.185	1.850%	1.850%
	A	5/29/2003	8.043	8.043	0.042	0.420%	0.420%
	A	12/10/2002	8.001	8.001	-0.069	-0.690%	-0.690%
	A	7/2/2002	8.070	8.070	0.004	0.040%	0.040%
	A	1/8/2002	8.066	8.066	0.065	0.650%	0.650%
	A	7/30/2001	8.001	8.001			
LPRM Card 4D-40-33	B	1/28/2004	8.130	8.130	0.151	1.510%	1.510%
	B	7/15/2003	7.979	7.979	-0.010	-0.100%	-0.100%
	B	1/21/2003	7.989	7.989	-0.002	-0.020%	-0.020%
	B	8/5/2002	7.991	7.991	0.013	0.130%	0.130%
	B	3/2/2002	7.978	7.978	-0.159	-1.590%	-1.590%
	B	9/7/2001	8.137	8.137	0.118	1.180%	1.180%
	B	3/24/2001	8.019	8.019			
LPRM Card 3D-56-41	C	1/15/2004	7.974	7.974	-0.020	-0.200%	-0.200%
	C	8/2/2003	7.994	7.994	0.029	0.290%	0.290%
	C	2/9/2003	7.965	7.965	-0.034	-0.340%	-0.340%
	C	8/30/2002	7.999	7.999	0.002	0.020%	0.020%
	C	3/13/2002	7.997	7.997	0.021	0.210%	0.210%
	C	9/23/2001	7.976	7.976	-0.008	-0.080%	-0.080%
	C	4/8/2001	7.984	7.984			
LPRM Card 4D-16-25	D	1/1/2004	7.953	7.953	0.025	0.250%	0.250%
	D	6/20/2003	7.928	7.928	-0.025	-0.250%	-0.250%
	D	12/31/2002	7.953	7.953	-0.058	-0.580%	-0.580%
	D	7/13/2002	8.011	8.011	0.022	0.220%	0.220%
	D	1/29/2002	7.989	7.989	0.029	0.290%	0.290%
	D	8/17/2001	7.960	7.960	-0.037	-0.370%	-0.370%
	D	2/25/2001	7.997	7.997			
LPRM Card 4D-32-17	E	2/9/2004	8.012	8.012	-0.044	-0.440%	-0.440%
	E	8/19/2003	8.056	8.056	0.126	1.260%	1.260%
	E	5/27/2003	7.930	7.930	-0.094	-0.940%	-0.940%
	E	2/4/2003	8.024	8.024	0.051	0.510%	0.510%
	E	1/10/2002	7.973	7.973	0.019	0.190%	0.190%
	E	7/30/2001	7.954	7.954			
LPRM Card 4D-56-33	F	1/29/2004	8.019	8.019	0.006	0.060%	0.060%
	F	7/7/2003	8.013	8.013	-0.062	-0.620%	-0.620%
	F	1/24/2003	8.075	8.075	0.072	0.720%	0.720%
	F	8/10/2002	8.003	8.003	-0.049	-0.490%	-0.490%
	F	2/12/2002	8.052	8.052	0.028	0.280%	0.280%
	F	9/11/2001	8.024	8.024	-0.011	-0.110%	-0.110%
	F	3/24/2001	8.035	8.035			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 17I:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 5D-48-17	A	7/20/2004	0.230	0.230	0.007	0.070%	0.070%
	A	8/23/2003	0.223	0.223	-0.018	-0.180%	-0.180%
	A	5/29/2003	0.241	0.241	0.035	0.350%	0.350%
	A	12/10/2002	0.206	0.206	-0.022	-0.220%	-0.220%
	A	7/2/2002	0.228	0.228	-0.004	-0.040%	-0.040%
	A	1/8/2002	0.232	0.232	0.005	0.050%	0.050%
	A	7/30/2001	0.227	0.227			
LPRM Card 4D-40-33	B	1/28/2004	0.275	0.275	0.072	0.720%	0.720%
	B	7/15/2003	0.203	0.203	-0.068	-0.680%	-0.680%
	B	1/21/2003	0.271	0.271	-0.010	-0.100%	-0.100%
	B	8/5/2002	0.281	0.281	0.003	0.030%	0.030%
	B	3/2/2002	0.278	0.278	0.015	0.150%	0.150%
	B	9/7/2001	0.263	0.263	-0.010	-0.100%	-0.100%
	B	3/24/2001	0.273	0.273			
LPRM Card 3D-56-41	C	1/15/2004	0.228	0.228	0.003	0.030%	0.030%
	C	8/2/2003	0.225	0.225	-0.011	-0.110%	-0.110%
	C	2/9/2003	0.236	0.236	0.032	0.320%	0.320%
	C	8/30/2002	0.204	0.204	-0.066	-0.660%	-0.660%
	C	3/13/2002	0.270	0.270	0.039	0.390%	0.390%
	C	9/23/2001	0.231	0.231	-0.008	-0.080%	-0.080%
	C	4/8/2001	0.239	0.239			
LPRM Card 4D-16-25	D	1/1/2004	0.235	0.235	0.029	0.290%	0.290%
	D	6/20/2003	0.206	0.206	-0.038	-0.380%	-0.380%
	D	12/31/2002	0.244	0.244	0.015	0.150%	0.150%
	D	7/13/2002	0.229	0.229	-0.013	-0.130%	-0.130%
	D	1/29/2002	0.242	0.242	0.011	0.110%	0.110%
	D	8/17/2001	0.231	0.231	0.010	0.100%	0.100%
	D	2/25/2001	0.221	0.221			
LPRM Card 4D-32-17	E	2/9/2004	0.288	0.288	-0.037	-0.370%	-0.370%
	E	8/19/2003	0.325	0.325	-0.020	-0.200%	-0.200%
	E	5/27/2003	0.345	0.345	0.045	0.450%	0.450%
	E	2/4/2003	0.300	0.300	-0.001	-0.010%	-0.010%
	E	1/10/2002	0.301	0.301	-0.023	-0.230%	-0.230%
	E	7/30/2001	0.324	0.324			
LPRM Card 4D-56-33	F	1/29/2004	0.286	0.286	-0.040	-0.400%	-0.400%
	F	7/7/2003	0.326	0.326	0.000	0.000%	0.000%
	F	1/24/2003	0.326	0.326	0.020	0.200%	0.200%
	F	8/10/2002	0.306	0.306	-0.006	-0.060%	-0.060%
	F	2/12/2002	0.312	0.312	0.024	0.240%	0.240%
	F	9/11/2001	0.288	0.288	-0.037	-0.370%	-0.370%
	F	3/24/2001	0.325	0.325			

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Table 17J:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 1A-24-57	A	7/20/2004	7.997	7.997	0.015	0.150%	0.150%
	A	8/23/2003	7.982	7.982	-0.013	-0.130%	-0.130%
	A	5/29/2003	7.995	7.995	-0.028	-0.280%	-0.280%
	A	12/10/2002	8.023	8.023	-0.023	-0.230%	-0.230%
	A	7/2/2002	8.046	8.046	0.007	0.070%	0.070%
	A	1/8/2002	8.039	8.039	0.034	0.340%	0.340%
	A	7/30/2001	8.005	8.005			
LPRM Card 5D-24-17	B	1/28/2004	8.029	8.029	-0.004	-0.040%	-0.040%
	B	7/15/2003	8.033	8.033	0.032	0.320%	0.320%
	B	1/21/2003	8.001	8.001	-0.074	-0.740%	-0.740%
	B	8/5/2002	8.075	8.075	0.018	0.180%	0.180%
	B	3/2/2002	8.057	8.057	-0.096	-0.960%	-0.960%
	B	9/7/2001	8.153	8.153	0.068	0.680%	0.680%
	B	3/24/2001	8.085	8.085			
LPRM Card 4D-08-25	C	1/15/2004	7.970	7.970	-0.137	-1.370%	-1.370%
	C	8/2/2003	8.107	8.107	0.122	1.220%	1.220%
	C	2/9/2003	7.985	7.985	0.012	0.120%	0.120%
	C	8/30/2002	7.973	7.973	-0.007	-0.070%	-0.070%
	C	3/13/2002	7.980	7.980	-0.015	-0.150%	-0.150%
	C	9/23/2001	7.995	7.995	-0.015	-0.150%	-0.150%
	C	4/8/2001	8.010	8.010			
LPRM Card 5D-48-25	D	1/1/2004	7.937	7.937	-0.040	-0.400%	-0.400%
	D	6/20/2003	7.977	7.977	0.023	0.230%	0.230%
	D	12/31/2002	7.954	7.954	-0.023	-0.230%	-0.230%
	D	7/13/2002	7.977	7.977	0.001	0.010%	0.010%
	D	1/29/2002	7.976	7.976	0.079	0.790%	0.790%
	D	8/17/2001	7.897	7.897	-0.171	-1.710%	-1.710%
	D	2/25/2001	8.068	8.068			
LPRM Card 1A-40-57	E	2/9/2004	8.027	8.027	0.047	0.470%	0.470%
	E	8/19/2003	7.980	7.980	0.026	0.260%	0.260%
	E	5/27/2003	7.954	7.954	-0.055	-0.550%	-0.550%
	E	2/4/2003	8.009	8.009	0.033	0.330%	0.330%
	E	1/10/2002	7.976	7.976	-0.049	-0.490%	-0.490%
	E	7/30/2001	8.025	8.025			
LPRM Card 5D-08-17	F	1/29/2004	8.059	8.059	0.069	0.690%	0.690%
	F	7/7/2003	7.990	7.990	-0.172	-1.720%	-1.720%
	F	1/24/2003	8.162	8.162	0.149	1.490%	1.490%
	F	8/10/2002	8.013	8.013	0.018	0.180%	0.180%
	F	2/12/2002	7.995	7.995	-0.013	-0.130%	-0.130%
	F	9/11/2001	8.008	8.008	-0.016	-0.160%	-0.160%
	F	3/24/2001	8.024	8.024			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 17J:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 1A-24-57	A	7/20/2004	0.245	0.245	0.014	0.140%	0.140%
	A	8/23/2003	0.231	0.231	-0.018	-0.180%	-0.180%
	A	5/29/2003	0.249	0.249	0.005	0.050%	0.050%
	A	12/10/2002	0.244	0.244	0.014	0.140%	0.140%
	A	7/2/2002	0.230	0.230	-0.011	-0.110%	-0.110%
	A	1/8/2002	0.241	0.241	0.029	0.290%	0.290%
	A	7/30/2001	0.212	0.212			
LPRM Card 5D-24-17	B	1/28/2004	0.222	0.222	-0.011	-0.110%	-0.110%
	B	7/15/2003	0.233	0.233	0.010	0.100%	0.100%
	B	1/21/2003	0.223	0.223	-0.022	-0.220%	-0.220%
	B	8/5/2002	0.245	0.245	0.032	0.320%	0.320%
	B	3/2/2002	0.213	0.213	-0.003	-0.030%	-0.030%
	B	9/7/2001	0.216	0.216	-0.024	-0.240%	-0.240%
	B	3/24/2001	0.240	0.240			
LPRM Card 4D-08-25	C	1/15/2004	0.241	0.241	0.042	0.420%	0.420%
	C	8/2/2003	0.199	0.199	-0.037	-0.370%	-0.370%
	C	2/9/2003	0.236	0.236	0.038	0.380%	0.380%
	C	8/30/2002	0.198	0.198	-0.048	-0.480%	-0.480%
	C	3/13/2002	0.246	0.246	0.023	0.230%	0.230%
	C	9/23/2001	0.223	0.223	-0.015	-0.150%	-0.150%
	C	4/8/2001	0.238	0.238			
LPRM Card 5D-48-25	D	1/1/2004	0.240	0.240	0.009	0.090%	0.090%
	D	6/20/2003	0.231	0.231	-0.002	-0.020%	-0.020%
	D	12/31/2002	0.233	0.233	-0.173	-1.730%	-1.730%
	D	7/13/2002	0.406	0.406	0.162	1.620%	1.620%
	D	1/29/2002	0.244	0.244	0.016	0.160%	0.160%
	D	8/17/2001	0.228	0.228	-0.012	-0.120%	-0.120%
	D	2/25/2001	0.240	0.240			
LPRM Card 1A-40-57	E	2/9/2004	0.219	0.219	-0.005	-0.050%	-0.050%
	E	8/19/2003	0.224	0.224	0.013	0.130%	0.130%
	E	5/27/2003	0.211	0.211	-0.010	-0.100%	-0.100%
	E	2/4/2003	0.221	0.221	0.001	0.010%	0.010%
	E	1/10/2002	0.220	0.220	-0.024	-0.240%	-0.240%
	E	7/30/2001	0.244	0.244			
LPRM Card 5D-08-17	F	1/29/2004	0.189	0.189	-0.014	-0.140%	-0.140%
	F	7/7/2003	0.203	0.203	-0.004	-0.040%	-0.040%
	F	1/24/2003	0.207	0.207	-0.042	-0.420%	-0.420%
	F	8/10/2002	0.249	0.249	0.018	0.180%	0.180%
	F	2/12/2002	0.231	0.231	0.009	0.090%	0.090%
	F	9/11/2001	0.222	0.222	-0.020	-0.200%	-0.200%
	F	3/24/2001	0.242	0.242			

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Table 17K:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 2A-08-41	A	7/20/2004	7.951	7.951	0.005	0.050%	0.050%
	A	8/23/2003	7.946	7.946	-0.048	-0.480%	-0.480%
	A	5/29/2003	7.994	7.994	-0.001	-0.010%	-0.010%
	A	12/10/2002	7.995	7.995	0.049	0.490%	0.490%
	A	7/2/2002	7.946	7.946	-0.035	-0.350%	-0.350%
	A	1/8/2002	7.981	7.981	-0.023	-0.230%	-0.230%
	A	7/30/2001	8.004	8.004			
LPRM Card 6D-56-17	B	1/28/2004	8.004	8.004	-0.015	-0.150%	-0.150%
	B	7/15/2003	8.019	8.019	-0.002	-0.020%	-0.020%
	B	1/21/2003	8.021	8.021	0.023	0.230%	0.230%
	B	8/5/2002	7.998	7.998	-0.001	-0.010%	-0.010%
	B	3/2/2002	7.999	7.999	-0.044	-0.440%	-0.440%
	B	9/7/2001	8.043	8.043	0.037	0.370%	0.370%
	B	3/24/2001	8.006	8.006			
LPRM Card 5D-40-25	C	1/15/2004	7.983	7.983	0.012	0.120%	0.120%
	C	8/2/2003	7.971	7.971	-0.100	-1.000%	-1.000%
	C	2/9/2003	8.071	8.071	0.120	1.200%	1.200%
	C	8/30/2002	7.951	7.951	-0.031	-0.310%	-0.310%
	C	3/13/2002	7.982	7.982	0.012	0.120%	0.120%
	C	9/23/2001	7.970	7.970	-0.013	-0.130%	-0.130%
	C	4/8/2001	7.983	7.983			
LPRM Card 6D-32-09	D	1/1/2004	7.968	7.968	-0.016	-0.160%	-0.160%
	D	6/20/2003	7.984	7.984	-0.002	-0.020%	-0.020%
	D	12/31/2002	7.986	7.986	0.005	0.050%	0.050%
	D	7/13/2002	7.981	7.981	-0.012	-0.120%	-0.120%
	D	1/29/2002	7.993	7.993	-0.046	-0.460%	-0.460%
	D	8/17/2001	8.039	8.039	-0.001	-0.010%	-0.010%
	D	2/25/2001	8.040	8.040			
LPRM Card 2A-24-41	E	2/9/2004	7.939	7.939	-0.019	-0.190%	-0.190%
	E	8/19/2003	7.958	7.958	0.044	0.440%	0.440%
	E	5/27/2003	7.914	7.914	-0.048	-0.480%	-0.480%
	E	2/4/2003	7.962	7.962	0.112	1.120%	1.120%
	E	1/10/2002	7.850	7.850	-0.096	-0.960%	-0.960%
	E	7/30/2001	7.946	7.946			
LPRM Card 6D-40-17	F	1/29/2004	7.884	7.884	-0.099	-0.990%	-0.990%
	F	7/7/2003	7.983	7.983	0.063	0.630%	0.630%
	F	1/24/2003	7.920	7.920	-0.071	-0.710%	-0.710%
	F	8/10/2002	7.991	7.991	0.025	0.250%	0.250%
	F	2/12/2002	7.966	7.966	-0.026	-0.260%	-0.260%
	F	9/11/2001	7.992	7.992	-0.093	-0.930%	-0.930%
	F	3/24/2001	8.085	8.085			

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Table 17K:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 2A-08-41	A	7/20/2004	0.240	0.240	0.020	0.200%	0.200%
	A	8/23/2003	0.220	0.220	-0.039	-0.390%	-0.390%
	A	5/29/2003	0.259	0.259	0.016	0.160%	0.160%
	A	12/10/2002	0.243	0.243	0.023	0.230%	0.230%
	A	7/2/2002	0.220	0.220	-0.020	-0.200%	-0.200%
	A	1/8/2002	0.240	0.240	0.035	0.350%	0.350%
	A	7/30/2001	0.205	0.205			
LPRM Card 6D-56-17	B	1/28/2004	0.219	0.219	0.002	0.020%	0.020%
	B	7/15/2003	0.217	0.217	-0.007	-0.070%	-0.070%
	B	1/21/2003	0.224	0.224	-0.030	-0.300%	-0.300%
	B	8/5/2002	0.254	0.254	0.025	0.250%	0.250%
	B	3/2/2002	0.229	0.229	0.006	0.060%	0.060%
	B	9/7/2001	0.223	0.223	-0.006	-0.060%	-0.060%
	B	3/24/2001	0.229	0.229			
LPRM Card 5D-40-25	C	1/15/2004	0.235	0.235	0.005	0.050%	0.050%
	C	8/2/2003	0.230	0.230	0.058	0.580%	0.580%
	C	2/9/2003	0.172	0.172	-0.072	-0.720%	-0.720%
	C	8/30/2002	0.244	0.244	-0.012	-0.120%	-0.120%
	C	3/13/2002	0.256	0.256	0.020	0.200%	0.200%
	C	9/23/2001	0.236	0.236	0.023	0.230%	0.230%
	C	4/8/2001	0.213	0.213			
LPRM Card 6D-32-09	D	1/1/2004	0.234	0.234	0.001	0.010%	0.010%
	D	6/20/2003	0.233	0.233	0.005	0.050%	0.050%
	D	12/31/2002	0.228	0.228	-0.003	-0.030%	-0.030%
	D	7/13/2002	0.231	0.231	0.006	0.060%	0.060%
	D	1/29/2002	0.225	0.225	-0.023	-0.230%	-0.230%
	D	8/17/2001	0.248	0.248	0.036	0.360%	0.360%
	D	2/25/2001	0.212	0.212			
LPRM Card 2A-24-41	E	2/9/2004	0.214	0.214	-0.015	-0.150%	-0.150%
	E	8/19/2003	0.229	0.229	0.117	1.170%	1.170%
	E	5/27/2003	0.112	0.112	-0.114	-1.140%	-1.140%
	E	2/4/2003	0.226	0.226	-0.009	-0.090%	-0.090%
	E	1/10/2002	0.235	0.235	0.011	0.110%	0.110%
	E	7/30/2001	0.224	0.224			
LPRM Card 6D-40-17	F	1/29/2004	0.579	0.579	0.335	3.350%	3.350%
	F	7/7/2003	0.244	0.244	-0.009	-0.090%	-0.090%
	F	1/24/2003	0.253	0.253	-0.008	-0.080%	-0.080%
	F	8/10/2002	0.261	0.261	0.023	0.230%	0.230%
	F	2/12/2002	0.238	0.238	-0.026	-0.260%	-0.260%
	F	9/11/2001	0.264	0.264	0.005	0.050%	0.050%
	F	3/24/2001	0.259	0.259			

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Table 17L:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 3A-40-41	A	7/20/2004	8.107	8.107	-0.021	-0.210%	-0.210%
	A	8/23/2003	8.128	8.128	-0.002	-0.020%	-0.020%
	A	5/29/2003	8.130	8.130	0.134	1.340%	1.340%
	A	12/10/2002	7.996	7.996	-0.102	-1.020%	-1.020%
	A	7/2/2002	8.098	8.098	-0.034	-0.340%	-0.340%
	A	1/8/2002	8.132	8.132	0.121	1.210%	1.210%
	A	7/30/2001	8.011	8.011			
LPRM Card 1A-32-57	B	1/28/2004	8.023	8.023	-0.022	-0.220%	-0.220%
	B	7/15/2003	8.045	8.045	0.005	0.050%	0.050%
	B	1/21/2003	8.040	8.040	0.028	0.280%	0.280%
	B	8/5/2002	8.012	8.012	-0.009	-0.090%	-0.090%
	B	3/2/2002	8.021	8.021	-0.029	-0.290%	-0.290%
	B	9/7/2001	8.050	8.050	0.029	0.290%	0.290%
	B	3/24/2001	8.021	8.021			
LPRM Card 6D-24-09	C	1/15/2004	7.985	7.985	-0.145	-1.450%	-1.450%
	C	8/2/2003	8.130	8.130	0.130	1.300%	1.300%
	C	2/9/2003	8.000	8.000	0.030	0.300%	0.300%
	C	8/30/2002	7.970	7.970	-0.025	-0.250%	-0.250%
	C	3/13/2002	7.995	7.995	0.026	0.260%	0.260%
	C	9/23/2001	7.969	7.969	-0.012	-0.120%	-0.120%
	C	4/8/2001	7.981	7.981			
LPRM Card 1A-24-49	D	1/1/2004	8.110	8.110	0.098	0.980%	0.980%
	D	6/20/2003	8.012	8.012	0.005	0.050%	0.050%
	D	12/31/2002	8.007	8.007	0.040	0.400%	0.400%
	D	7/13/2002	7.967	7.967	-0.035	-0.350%	-0.350%
	D	1/29/2002	8.002	8.002	-0.067	-0.670%	-0.670%
	D	8/17/2001	8.069	8.069	0.291	2.910%	2.910%
	D	2/25/2001	7.778	7.778			
LPRM Card 1A-24-49	E	2/9/2004	7.963	7.963	0.027	0.270%	0.270%
	E	8/19/2003	7.936	7.936	-0.094	-0.940%	-0.940%
	E	5/27/2003	8.030	8.030	0.026	0.260%	0.260%
	E	2/4/2003	8.004	8.004	0.076	0.760%	0.760%
	E	1/10/2002	7.928	7.928	-0.053	-0.530%	-0.530%
	E	7/30/2001	7.981	7.981			
LPRM Card 1A-16-57	F	1/29/2004	6.936	8.045	-1.115	-11.150%	-11.150%
	F	7/7/2003	8.051	8.051	0.041	0.410%	0.410%
	F	1/24/2003	8.010	8.010	0.022	0.220%	0.220%
	F	8/10/2002	7.988	7.988	-0.024	-0.240%	-0.240%
	F	2/12/2002	8.012	8.012	0.000	0.000%	0.000%
	F	9/11/2001	8.012	8.012	0.003	0.030%	0.030%
	F	3/24/2001	8.009	8.009			

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Table 17L:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 3A-40-41	A	7/20/2004	0.346	0.346	0.065	0.650%	0.650%
	A	8/23/2003	0.281	0.281	-0.032	-0.320%	-0.320%
	A	5/29/2003	0.313	0.313	0.041	0.410%	0.410%
	A	12/10/2002	0.272	0.272	-0.030	-0.300%	-0.300%
	A	7/2/2002	0.302	0.302	-0.010	-0.100%	-0.100%
	A	1/8/2002	0.312	0.312	0.055	0.550%	0.550%
	A	7/30/2001	0.257	0.257			
LPRM Card 1A-32-57	B	1/28/2004	0.222	0.222	-0.039	-0.390%	-0.390%
	B	7/15/2003	0.261	0.261	0.079	0.790%	0.790%
	B	1/21/2003	0.182	0.182	-0.051	-0.510%	-0.510%
	B	8/5/2002	0.233	0.233	-0.007	-0.070%	-0.070%
	B	3/2/2002	0.240	0.240	0.002	0.020%	0.020%
	B	9/7/2001	0.238	0.238	0.089	0.890%	0.890%
	B	3/24/2001	0.149	0.149			
LPRM Card 6D-24-09	C	1/15/2004	0.255	0.255	0.032	0.320%	0.320%
	C	8/2/2003	0.223	0.223	0.008	0.080%	0.080%
	C	2/9/2003	0.215	0.215	-0.010	-0.100%	-0.100%
	C	8/30/2002	0.225	0.225	-0.022	-0.220%	-0.220%
	C	3/13/2002	0.247	0.247	0.012	0.120%	0.120%
	C	9/23/2001	0.235	0.235	-0.018	-0.180%	-0.180%
	C	4/8/2001	0.253	0.253			
LPRM Card 1A-24-49	D	1/1/2004	0.232	0.232	-0.004	-0.040%	-0.040%
	D	6/20/2003	0.236	0.236	-0.009	-0.090%	-0.090%
	D	12/31/2002	0.245	0.245	0.010	0.100%	0.100%
	D	7/13/2002	0.235	0.235	-0.008	-0.080%	-0.080%
	D	1/29/2002	0.243	0.243	-0.021	-0.210%	-0.210%
	D	8/17/2001	0.264	0.264	0.018	0.180%	0.180%
	D	2/25/2001	0.246	0.246			
LPRM Card 3A-56-41	E	2/9/2004	0.240	0.240	0.042	0.420%	0.420%
	E	8/19/2003	0.198	0.198	0.008	0.080%	0.080%
	E	5/27/2003	0.190	0.190	-0.029	-0.290%	-0.290%
	E	2/4/2003	0.219	0.219	0.010	0.100%	0.100%
	E	1/10/2002	0.209	0.209	-0.025	-0.250%	-0.250%
	E	7/30/2001	0.234	0.234			
LPRM Card 1A-16-57	F	1/29/2004	-0.006	0.243	-0.260	-2.600%	-2.600%
	F	7/7/2003	0.254	0.254	0.151	1.510%	1.510%
	F	1/24/2003	0.103	0.103	-0.145	-1.450%	-1.450%
	F	8/10/2002	0.248	0.248	-0.001	-0.010%	-0.010%
	F	2/12/2002	0.249	0.249	-0.005	-0.050%	-0.050%
	F	9/11/2001	0.254	0.254	0.000	0.000%	0.000%
	F	3/24/2001	0.254	0.254			

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Table 17M:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 4A-24-25	A	7/20/2004	8.008	8.008	-0.033	-0.330%	-0.330%
	A	8/23/2003	8.041	8.041	0.033	0.330%	0.330%
	A	5/29/2003	8.008	8.008	0.010	0.100%	0.100%
	A	12/10/2002	7.998	7.998	0.015	0.150%	0.150%
	A	7/2/2002	7.983	7.983	0.019	0.190%	0.190%
	A	1/8/2002	7.964	7.964	-0.005	-0.050%	-0.050%
	A	7/30/2001	7.969	7.969			
LPRM Card 2A-16-41	B	1/28/2004	8.070	8.070	0.043	0.430%	0.430%
	B	7/15/2003	8.027	8.027	-0.073	-0.730%	-0.730%
	B	1/21/2003	8.100	8.100	0.058	0.580%	0.580%
	B	8/5/2002	8.042	8.042	-0.032	-0.320%	-0.320%
	B	3/2/2002	8.074	8.074	-0.066	-0.660%	-0.660%
	B	9/7/2001	8.140	8.140	0.083	0.830%	0.830%
	B	3/24/2001	8.057	8.057			
LPRM Card 1A-16-49	C	1/15/2004	8.084	8.084	-0.007	-0.070%	-0.070%
	C	8/2/2003	8.091	8.091	-0.112	-1.120%	-1.120%
	C	2/9/2003	8.203	8.203	0.152	1.520%	1.520%
	C	8/30/2002	8.051	8.051	-0.034	-0.340%	-0.340%
	C	3/13/2002	8.085	8.085	0.158	1.580%	1.580%
	C	9/23/2001	7.927	7.927	-0.173	-1.730%	-1.730%
	C	4/8/2001	8.100	8.100			
LPRM Card 3A-08-33	D	1/1/2004	7.990	7.990	-0.002	-0.020%	-0.020%
	D	6/20/2003	7.992	7.992	-0.073	-0.730%	-0.730%
	D	12/31/2002	8.065	8.065	0.087	0.870%	0.870%
	D	7/13/2002	7.978	7.978	-0.087	-0.870%	-0.870%
	D	1/29/2002	8.065	8.065	-0.016	-0.160%	-0.160%
	D	8/17/2001	8.081	8.081	0.099	0.990%	0.990%
	D	2/25/2001	7.982	7.982			
LPRM Card 4A-08-25	E	2/9/2004	7.925	7.925	-0.011	-0.110%	-0.110%
	E	8/19/2003	7.936	7.936	0.017	0.170%	0.170%
	E	5/27/2003	7.919	7.919	-0.050	-0.500%	-0.500%
	E	2/4/2003	7.969	7.969	0.032	0.320%	0.320%
	E	1/10/2002	7.937	7.937	0.012	0.120%	0.120%
	E	7/30/2001	7.925	7.925			
LPRM Card 3A-32-41	F	1/29/2004	8.025	8.025	0.041	0.410%	0.410%
	F	7/7/2003	7.984	7.984	0.034	0.340%	0.340%
	F	1/24/2003	7.950	7.950	-0.067	-0.670%	-0.670%
	F	8/10/2002	8.017	8.017	0.038	0.380%	0.380%
	F	2/12/2002	7.979	7.979	-0.112	-1.120%	-1.120%
	F	9/11/2001	8.091	8.091	0.065	0.650%	0.650%
	F	3/24/2001	8.026	8.026			

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Table 17M:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 4A-24-25	A	7/20/2004	0.265	0.265	0.013	0.130%	0.130%
	A	8/23/2003	0.252	0.252	-0.057	-0.570%	-0.570%
	A	5/29/2003	0.309	0.309	0.062	0.620%	0.620%
	A	12/10/2002	0.247	0.247	0.015	0.150%	0.150%
	A	7/2/2002	0.232	0.232	-0.021	-0.210%	-0.210%
	A	1/8/2002	0.253	0.253	0.001	0.010%	0.010%
	A	7/30/2001	0.252	0.252			
LPRM Card 2A-16-41	B	1/28/2004	0.238	0.238	0.022	0.220%	0.220%
	B	7/15/2003	0.216	0.216	-0.012	-0.120%	-0.120%
	B	1/21/2003	0.228	0.228	-0.006	-0.060%	-0.060%
	B	8/5/2002	0.234	0.234	0.021	0.210%	0.210%
	B	3/2/2002	0.213	0.213	0.001	0.010%	0.010%
	B	9/7/2001	0.212	0.212	-0.018	-0.180%	-0.180%
	B	3/24/2001	0.230	0.230			
LPRM Card 1A-16-49	C	1/15/2004	0.204	0.204	0.040	0.400%	0.400%
	C	8/2/2003	0.164	0.164	-0.042	-0.420%	-0.420%
	C	2/9/2003	0.206	0.206	0.002	0.020%	0.020%
	C	8/30/2002	0.204	0.204	-0.034	-0.340%	-0.340%
	C	3/13/2002	0.238	0.238	0.034	0.340%	0.340%
	C	9/23/2001	0.204	0.204	-0.006	-0.060%	-0.060%
	C	4/8/2001	0.210	0.210			
LPRM Card 3A-08-33	D	1/1/2004	0.486	0.486	0.003	0.030%	0.030%
	D	6/20/2003	0.483	0.483	0.012	0.120%	0.120%
	D	12/31/2002	0.471	0.471	0.019	0.190%	0.190%
	D	7/13/2002	0.452	0.452	0.006	0.060%	0.060%
	D	1/29/2002	0.446	0.446	-0.038	-0.380%	-0.380%
	D	8/17/2001	0.484	0.484	0.105	1.050%	1.050%
	D	2/25/2001	0.379	0.379			
LPRM Card 4A-08-25	E	2/9/2004	0.229	0.229	0.014	0.140%	0.140%
	E	8/19/2003	0.215	0.215	-0.013	-0.130%	-0.130%
	E	5/27/2003	0.228	0.228	0.007	0.070%	0.070%
	E	2/4/2003	0.221	0.221	0.012	0.120%	0.120%
	E	1/10/2002	0.209	0.209	-0.011	-0.110%	-0.110%
	E	7/30/2001	0.220	0.220			
LPRM Card 3A-32-41	F	1/29/2004	0.210	0.210	-0.016	-0.160%	-0.160%
	F	7/7/2003	0.226	0.226	0.052	0.520%	0.520%
	F	1/24/2003	0.174	0.174	-0.086	-0.860%	-0.860%
	F	8/10/2002	0.260	0.260	0.000	0.000%	0.000%
	F	2/12/2002	0.260	0.260	0.030	0.300%	0.300%
	F	9/11/2001	0.230	0.230	-0.018	-0.180%	-0.180%
	F	3/24/2001	0.248	0.248			

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Table 17N:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 5A-56-25	A	7/20/2004	8.086	8.086	-0.073	-0.730%	-0.730%
	A	8/23/2003	8.159	8.159	0.190	1.900%	1.900%
	A	5/29/2003	7.969	7.969	-0.087	-0.870%	-0.870%
	A	12/10/2002	8.056	8.056	0.056	0.560%	0.560%
	A	7/2/2002	8.000	8.000	-0.001	-0.010%	-0.010%
	A	1/8/2002	8.001	8.001	-0.018	-0.180%	-0.180%
	A	7/30/2001	8.019	8.019			
LPRM Card 3A-48-41	B	1/28/2004	8.109	8.109	0.068	0.680%	0.680%
	B	7/15/2003	8.041	8.041	-0.103	-1.030%	-1.030%
	B	1/21/2003	8.144	8.144	0.089	0.890%	0.890%
	B	8/5/2002	8.055	8.055	-0.038	-0.380%	-0.380%
	B	3/2/2002	8.093	8.093	-0.114	-1.140%	-1.140%
	B	9/7/2001	8.207	8.207	0.112	1.120%	1.120%
	B	3/24/2001	8.095	8.095			
LPRM Card 2A-48-49	C	1/15/2004	7.991	7.991	-0.172	-1.720%	-1.720%
	C	8/2/2003	8.163	8.163	0.111	1.110%	1.110%
	C	2/9/2003	8.052	8.052	0.061	0.610%	0.610%
	C	8/30/2002	7.991	7.991	0.021	0.210%	0.210%
	C	3/13/2002	7.970	7.970	-0.107	-1.070%	-1.070%
	C	9/23/2001	8.077	8.077	0.045	0.450%	0.450%
	C	4/8/2001	8.032	8.032			
LPRM Card 4A-40-33	D	2/25/2001	8.043	8.043	-0.005	-0.050%	-0.050%
	D	8/17/2001	8.048	8.048	0.039	0.390%	0.390%
	D	1/29/2002	8.009	8.009	-0.016	-0.160%	-0.160%
	D	7/13/2002	8.025	8.025	0.007	0.070%	0.070%
	D	12/31/2002	8.018	8.018	0.005	0.050%	0.050%
	D	6/20/2003	8.013	8.013	0.001	0.010%	0.010%
	D	1/1/2004	8.012	8.012			
LPRM Card 5A-40-25	E	2/9/2004	7.988	7.988	-0.025	-0.250%	-0.250%
	E	8/19/2003	8.013	8.013	-0.066	-0.660%	-0.660%
	E	5/27/2003	8.079	8.079	-0.039	-0.390%	-0.390%
	E	2/4/2003	8.118	8.118	0.053	0.530%	0.530%
	E	1/10/2002	8.065	8.065	0.050	0.500%	0.500%
	E	7/30/2001	8.015	8.015			
LPRM Card 4A-16-25	F	1/29/2004	7.876	7.876	-0.170	-1.700%	-1.700%
	F	7/7/2003	8.046	8.046	-0.003	-0.030%	-0.030%
	F	1/24/2003	8.049	8.049	0.034	0.340%	0.340%
	F	8/10/2002	8.015	8.015	0.019	0.190%	0.190%
	F	2/12/2002	7.996	7.996	-0.010	-0.100%	-0.100%
	F	9/11/2001	8.006	8.006	-0.004	-0.040%	-0.040%
	F	3/24/2001	8.010	8.010			

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Table 17N:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 5A-56-25	A	7/20/2004	0.234	0.234	0.014	0.140%	0.140%
	A	8/23/2003	0.220	0.220	-0.041	-0.410%	-0.410%
	A	5/29/2003	0.261	0.261	0.052	0.520%	0.520%
	A	12/10/2002	0.209	0.209	0.018	0.180%	0.180%
	A	7/2/2002	0.191	0.191	-0.064	-0.640%	-0.640%
	A	1/8/2002	0.255	0.255	0.044	0.440%	0.440%
	A	7/30/2001	0.211	0.211			
LPRM Card 3A-48-41	B	1/28/2004	0.197	0.197	-0.052	-0.520%	-0.520%
	B	7/15/2003	0.249	0.249	-0.009	-0.090%	-0.090%
	B	1/21/2003	0.258	0.258	-0.006	-0.060%	-0.060%
	B	8/5/2002	0.264	0.264	0.024	0.240%	0.240%
	B	3/2/2002	0.240	0.240	0.003	0.030%	0.030%
	B	9/7/2001	0.237	0.237	-0.024	-0.240%	-0.240%
	B	3/24/2001	0.261	0.261			
LPRM Card 2A-48-49	C	1/15/2004	0.263	0.263	0.028	0.280%	0.280%
	C	8/2/2003	0.235	0.235	-0.010	-0.100%	-0.100%
	C	2/9/2003	0.245	0.245	-0.006	-0.060%	-0.060%
	C	8/30/2002	0.251	0.251	0.001	0.010%	0.010%
	C	3/13/2002	0.250	0.250	0.028	0.280%	0.280%
	C	9/23/2001	0.222	0.222	-0.031	-0.310%	-0.310%
	C	4/8/2001	0.253	0.253			
LPRM Card 4A-40-33	D	1/1/2004	0.230	0.230	0.010	0.100%	0.100%
	D	6/20/2003	0.220	0.220	0.009	0.090%	0.090%
	D	12/31/2002	0.211	0.211	-0.015	-0.150%	-0.150%
	D	7/13/2002	0.226	0.226	-0.001	-0.010%	-0.010%
	D	1/29/2002	0.227	0.227	0.001	0.010%	0.010%
	D	8/17/2001	0.226	0.226	-0.003	-0.030%	-0.030%
	D	2/25/2001	0.229	0.229			
LPRM Card 5A-40-25	E	2/9/2004	0.324	0.324	-0.005	-0.050%	-0.050%
	E	8/19/2003	0.329	0.329	0.041	0.410%	0.410%
	E	5/27/2003	0.288	0.288	-0.010	-0.100%	-0.100%
	E	2/4/2003	0.298	0.298	-0.036	-0.360%	-0.360%
	E	1/10/2002	0.334	0.334	0.038	0.380%	0.380%
	E	7/30/2001	0.296	0.296			
LPRM Card 4A-16-25	F	1/29/2004	0.135	0.135	-0.104	-1.040%	-1.040%
	F	7/7/2003	0.239	0.239	0.019	0.190%	0.190%
	F	1/24/2003	0.220	0.220	-0.018	-0.180%	-0.180%
	F	8/10/2002	0.238	0.238	-0.031	-0.310%	-0.310%
	F	2/12/2002	0.269	0.269	0.031	0.310%	0.310%
	F	9/11/2001	0.238	0.238	-0.010	-0.100%	-0.100%
	F	3/24/2001	0.248	0.248			

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Table 17P:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 6A-40-09	A	7/20/2004	7.970	7.970	-0.030	-0.300%	-0.300%
	A	8/23/2003	8.000	8.000	-0.011	-0.110%	-0.110%
	A	5/29/2003	8.011	8.011	0.017	0.170%	0.170%
	A	12/10/2002	7.994	7.994	-0.001	-0.010%	-0.010%
	A	7/2/2002	7.995	7.995	0.047	0.470%	0.470%
	A	1/8/2002	7.948	7.948	-0.154	-1.540%	-1.540%
	A	7/30/2001	8.102	8.102			
LPRM Card 4A-32-25	B	1/28/2004	8.065	8.065	-0.006	-0.060%	-0.060%
	B	7/15/2003	8.071	8.071	0.023	0.230%	0.230%
	B	1/21/2003	8.048	8.048	0.014	0.140%	0.140%
	B	8/5/2002	8.034	8.034	-0.025	-0.250%	-0.250%
	B	3/2/2002	8.059	8.059	0.013	0.130%	0.130%
	B	9/7/2001	8.046	8.046	0.002	0.020%	0.020%
	B	3/24/2001	8.044	8.044			
LPRM Card 3A-32-33	C	1/15/2004	8.006	8.006	0.012	0.120%	0.120%
	C	8/2/2003	7.994	7.994	-0.038	-0.380%	-0.380%
	C	2/9/2003	0.032	8.032	-7.979	-79.790%	outlier
	C	8/30/2002	8.011	8.011	0.003	0.030%	0.030%
	C	3/13/2002	8.008	8.008	-0.036	-0.360%	-0.360%
	C	9/23/2001	8.044	8.044	-0.159	-1.590%	-1.590%
	C	4/8/2001	8.203	8.203			
LPRM Card 5A-24-17	D	1/1/2004	8.006	8.006	0.007	0.070%	0.070%
	D	6/20/2003	7.999	7.999	-0.040	-0.400%	-0.400%
	D	12/31/2002	8.039	8.039	0.036	0.360%	0.360%
	D	7/13/2002	8.003	8.003	0.069	0.690%	0.690%
	D	1/29/2002	7.934	7.934	-0.049	-0.490%	-0.490%
	D	8/17/2001	7.983	7.983	-0.154	-1.540%	-1.540%
	D	2/25/2001	8.137	8.137			
LPRM Card 6A-24-09	E	2/9/2004	7.969	7.969	-0.018	-0.180%	-0.180%
	E	8/19/2003	7.987	7.987	0.015	0.150%	0.150%
	E	5/27/2003	7.972	7.972	0.007	0.070%	0.070%
	E	2/4/2003	7.965	7.965	-0.024	-0.240%	-0.240%
	E	1/10/2002	7.989	7.989	0.006	0.060%	0.060%
	E	7/30/2001	7.983	7.983			
LPRM Card 5A-48-25	F	1/29/2004	8.012	8.012	-0.002	-0.020%	-0.020%
	F	7/7/2003	8.014	8.014	-0.047	-0.470%	-0.470%
	F	1/24/2003	8.061	8.061	-0.010	-0.100%	-0.100%
	F	8/10/2002	8.071	8.071	0.083	0.830%	0.830%
	F	2/12/2002	7.988	7.988	-0.033	-0.330%	-0.330%
	F	9/11/2001	8.021	8.021	-0.039	-0.390%	-0.390%
	F	3/24/2001	8.060	8.060			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 17P:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 6A-40-09	A	7/20/2004	0.352	0.352	0.045	0.450%	0.450%
	A	8/23/2003	0.307	0.307	0.031	0.310%	0.310%
	A	5/29/2003	0.276	0.276	0.033	0.330%	0.330%
	A	12/10/2002	0.243	0.243	-0.080	-0.800%	-0.800%
	A	7/2/2002	0.323	0.323	0.013	0.130%	0.130%
	A	1/8/2002	0.310	0.310	-2.474	-24.740%	outlier
	A	7/30/2001	2.784	2.784			
LPRM Card 4A-32-25	B	1/28/2004	0.262	0.262	0.039	0.390%	0.390%
	B	7/15/2003	0.223	0.223	-0.045	-0.450%	-0.450%
	B	1/21/2003	0.268	0.268	0.008	0.080%	0.080%
	B	8/5/2002	0.260	0.260	0.002	0.020%	0.020%
	B	3/2/2002	0.258	0.258	0.019	0.190%	0.190%
	B	9/7/2001	0.239	0.239	-0.016	-0.160%	-0.160%
	B	3/24/2001	0.255	0.255			
LPRM Card 3A-32-33	C	1/15/2004	0.220	0.220	-0.008	-0.080%	-0.080%
	C	8/2/2003	0.228	0.228	-0.009	-0.090%	-0.090%
	C	2/9/2003	0.237	0.237	0.046	0.460%	0.460%
	C	8/30/2002	0.191	0.191	-0.010	-0.100%	-0.100%
	C	3/13/2002	0.201	0.201	-0.035	-0.350%	-0.350%
	C	9/23/2001	0.236	0.236	-0.007	-0.070%	-0.070%
	C	4/8/2001	0.243	0.243			
LPRM Card 5A-24-17	D	1/1/2004	0.240	0.240	0.017	0.170%	0.170%
	D	6/20/2003	0.223	0.223	-0.008	-0.080%	-0.080%
	D	12/31/2002	0.231	0.231	-0.059	-0.590%	-0.590%
	D	7/13/2002	0.290	0.290	0.102	1.020%	1.020%
	D	1/29/2002	0.188	0.188	-0.054	-0.540%	-0.540%
	D	8/17/2001	0.242	0.242	-0.013	-0.130%	-0.130%
	D	2/25/2001	0.255	0.255			
LPRM Card 6A-24-09	E	2/9/2004	0.230	0.230	-0.009	-0.090%	-0.090%
	E	8/19/2003	0.239	0.239	0.082	0.820%	0.820%
	E	5/27/2003	0.157	0.157	-0.083	-0.830%	-0.830%
	E	2/4/2003	0.240	0.240	0.000	0.000%	0.000%
	E	1/10/2002	0.240	0.240	0.017	0.170%	0.170%
	E	7/30/2001	0.223	0.223			
LPRM Card 5A-48-25	F	1/29/2004	0.361	0.361	0.120	1.200%	1.200%
	F	7/7/2003	0.241	0.241	0.034	0.340%	0.340%
	F	1/24/2003	0.207	0.207	-0.047	-0.470%	-0.470%
	F	8/10/2002	0.254	0.254	-0.019	-0.190%	-0.190%
	F	2/12/2002	0.273	0.273	0.066	0.660%	0.660%
	F	9/11/2001	0.207	0.207	-0.036	-0.360%	-0.360%
	F	3/24/2001	0.243	0.243			

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Table 17Q:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 1C-40-57	A	7/20/2004	8.020	8.020	-0.079	-0.790%	-0.790%
	A	8/23/2003	8.099	8.099	0.114	1.140%	1.140%
	A	5/29/2003	7.985	7.985	-0.068	-0.680%	-0.680%
	A	12/10/2002	8.053	8.053	0.056	0.560%	0.560%
	A	7/2/2002	7.997	7.997	-0.042	-0.420%	-0.420%
	A	1/8/2002	8.039	8.039	0.040	0.400%	0.400%
	A	7/30/2001	7.999	7.999			
LPRM Card 5A-16-09	B	1/28/2004	8.107	8.107	0.065	0.650%	0.650%
	B	7/15/2003	8.042	8.042	0.009	0.090%	0.090%
	B	1/21/2003	8.033	8.033	0.048	0.480%	0.480%
	B	8/5/2002	7.985	7.985	-0.038	-0.380%	-0.380%
	B	3/2/2002	8.023	8.023	-0.026	-0.260%	-0.260%
	B	9/7/2001	8.049	8.049	0.013	0.130%	0.130%
	B	3/24/2001	8.036	8.036			
LPRM Card 4A-16-17	C	1/15/2004	7.989	7.989	-0.192	-1.920%	-1.920%
	C	8/2/2003	8.181	8.181	0.143	1.430%	1.430%
	C	2/9/2003	8.038	8.038	0.022	0.220%	0.220%
	C	8/30/2002	8.016	8.016	-0.040	-0.400%	-0.400%
	C	3/13/2002	8.056	8.056	0.064	0.640%	0.640%
	C	9/23/2001	7.992	7.992	-0.005	-0.050%	-0.050%
	C	4/8/2001	7.997	7.997			
LPRM Card 6A-56-17	D	1/1/2004	8.003	8.003	0.011	0.110%	0.110%
	D	6/20/2003	7.992	7.992	-0.030	-0.300%	-0.300%
	D	12/31/2002	8.022	8.022	0.010	0.100%	0.100%
	D	7/13/2002	8.012	8.012	0.000	0.000%	0.000%
	D	1/29/2002	8.012	8.012	-0.024	-0.240%	-0.240%
	D	8/17/2001	8.036	8.036	0.003	0.030%	0.030%
	D	2/25/2001	8.033	8.033			
LPRM Card 1C-24-57	E	2/9/2004	8.025	8.025	0.016	0.160%	0.160%
	E	8/19/2003	8.009	8.009	0.008	0.080%	0.080%
	E	5/27/2003	8.001	8.001	-0.013	-0.130%	-0.130%
	E	2/4/2003	8.014	8.014	-0.008	-0.080%	-0.080%
	E	1/10/2002	8.022	8.022	0.015	0.150%	0.150%
	E	7/30/2001	8.007	8.007			
LPRM Card 6A-32-09	F	1/29/2004	8.083	8.083	0.051	0.510%	0.510%
	F	7/7/2003	8.032	8.032	-0.030	-0.300%	-0.300%
	F	1/24/2003	8.062	8.062	0.050	0.500%	0.500%
	F	8/10/2002	8.012	8.012	0.021	0.210%	0.210%
	F	2/12/2002	7.991	7.991	-0.093	-0.930%	-0.930%
	F	9/11/2001	8.084	8.084	0.041	0.410%	0.410%
	F	3/24/2001	8.043	8.043			

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Table 17Q:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 1C-40-57	A	7/20/2004	0.247	0.247	0.010	0.100%	0.100%
	A	8/23/2003	0.237	0.237	-0.044	-0.440%	-0.440%
	A	5/29/2003	0.281	0.281	0.031	0.310%	0.310%
	A	12/10/2002	0.250	0.250	0.010	0.100%	0.100%
	A	7/2/2002	0.240	0.240	-0.004	-0.040%	-0.040%
	A	1/8/2002	0.244	0.244	0.006	0.060%	0.060%
	A	7/30/2001	0.238	0.238			
LPRM Card 5A-16-09	B	1/28/2004	0.258	0.258	0.114	1.140%	1.140%
	B	7/15/2003	0.144	0.144	-0.098	-0.980%	-0.980%
	B	1/21/2003	0.242	0.242	-0.019	-0.190%	-0.190%
	B	8/5/2002	0.261	0.261	0.004	0.040%	0.040%
	B	3/2/2002	0.257	0.257	0.024	0.240%	0.240%
	B	9/7/2001	0.233	0.233	-0.022	-0.220%	-0.220%
	B	3/24/2001	0.255	0.255			
LPRM Card 4A-16-17	C	1/15/2004	0.202	0.202	-0.013	-0.130%	-0.130%
	C	8/2/2003	0.215	0.215	-0.007	-0.070%	-0.070%
	C	2/9/2003	0.222	0.222	-0.005	-0.050%	-0.050%
	C	8/30/2002	0.227	0.227	0.005	0.050%	0.050%
	C	3/13/2002	0.222	0.222	-0.007	-0.070%	-0.070%
	C	9/23/2001	0.229	0.229	-0.007	-0.070%	-0.070%
	C	4/8/2001	0.236	0.236			
LPRM Card 6A-56-17	D	1/1/2004	0.214	0.214	-0.010	-0.100%	-0.100%
	D	6/20/2003	0.224	0.224	-0.015	-0.150%	-0.150%
	D	12/31/2002	0.239	0.239	0.000	0.000%	0.000%
	D	7/13/2002	0.239	0.239	0.035	0.350%	0.350%
	D	1/29/2002	0.204	0.204	-0.035	-0.350%	-0.350%
	D	8/17/2001	0.239	0.239	-0.006	-0.060%	-0.060%
	D	2/25/2001	0.245	0.245			
LPRM Card 1C-24-57	E	2/9/2004	0.212	0.212	-0.008	-0.080%	-0.080%
	E	8/19/2003	0.220	0.220	0.042	0.420%	0.420%
	E	5/27/2003	0.178	0.178	-0.053	-0.530%	-0.530%
	E	2/4/2003	0.231	0.231	0.003	0.030%	0.030%
	E	1/10/2002	0.228	0.228	0.009	0.090%	0.090%
	E	7/30/2001	0.219	0.219			
LPRM Card 6A-32-09	F	1/29/2004	0.233	0.233	0.015	0.150%	0.150%
	F	7/7/2003	0.218	0.218	-0.013	-0.130%	-0.130%
	F	1/24/2003	0.231	0.231	0.001	0.010%	0.010%
	F	8/10/2002	0.230	0.230	-0.002	-0.020%	-0.020%
	F	2/12/2002	0.232	0.232	0.013	0.130%	0.130%
	F	9/11/2001	0.219	0.219	-0.009	-0.090%	-0.090%
	F	3/24/2001	0.228	0.228			

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Table 17R:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 2C-24-41	A	7/20/2004	8.027	8.027	0.001	0.010%	0.010%
	A	8/23/2003	8.026	8.026	0.034	0.340%	0.340%
	A	5/29/2003	7.992	7.992	-0.146	-1.460%	-1.460%
	A	12/10/2002	8.138	8.138	0.065	0.650%	0.650%
	A	7/2/2002	8.073	8.073	0.111	1.110%	1.110%
	A	1/8/2002	7.962	7.962	-0.208	-2.080%	-2.080%
	A	7/30/2001	8.170	8.170			
LPRM Card 6A-48-09	B	1/28/2004	8.093	8.093	0.058	0.580%	0.580%
	B	7/15/2003	8.035	8.035	-0.005	-0.050%	-0.050%
	B	1/21/2003	8.040	8.040	0.008	0.080%	0.080%
	B	8/5/2002	8.032	8.032	-0.002	-0.020%	-0.020%
	B	3/2/2002	8.034	8.034	-0.039	-0.390%	-0.390%
	B	9/7/2001	8.073	8.073	0.027	0.270%	0.270%
	B	3/24/2001	8.046	8.046			
LPRM Card 5A-48-17	C	1/15/2004	8.145	8.145	-0.126	-1.260%	-1.260%
	C	8/2/2003	8.271	8.271	0.249	2.490%	2.490%
	C	2/9/2003	8.022	8.022	0.044	0.440%	0.440%
	C	8/30/2002	7.978	7.978	-0.113	-1.130%	-1.130%
	C	3/13/2002	8.091	8.091	-0.002	-0.020%	-0.020%
	C	9/23/2001	8.093	8.093	-0.046	-0.460%	-0.460%
	C	4/8/2001	8.139	8.139			
LPRM Card 1C-08-49	D	1/1/2004	7.881	7.881	-0.102	-1.020%	-1.020%
	D	6/20/2003	7.983	7.983			
	D	12/31/2002	NA	NA			
	D	7/13/2002	NA	NA			
	D	1/29/2002	NA	NA			
	D	8/17/2001	7.970	7.970	0.006	0.060%	0.060%
	D	2/25/2001	7.964	7.964			
LPRM Card 2C-08-41	E	2/9/2004	7.959	7.959	0.019	0.190%	0.190%
	E	8/19/2003	7.940	7.940	-0.053	-0.530%	-0.530%
	E	5/27/2003	7.993	7.993			
	E	2/4/2003	NA	NA			
	E	1/10/2002	7.955	7.955	-0.004	-0.040%	-0.040%
	E	7/30/2001	7.959	7.959			
LPRM Card 1C-32-57	F	1/29/2004	7.999	7.999	-0.042	-0.420%	-0.420%
	F	7/7/2003	8.041	8.041	-0.022	-0.220%	-0.220%
	F	1/24/2003	8.063	8.063	0.011	0.110%	0.110%
	F	8/10/2002	8.052	8.052	0.040	0.400%	0.400%
	F	2/12/2002	8.012	8.012	-0.032	-0.320%	-0.320%
	F	9/11/2001	8.044	8.044	-0.006	-0.060%	-0.060%
	F	3/24/2001	8.050	8.050			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 17R:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 2C-24-41	A	7/20/2004	0.234	0.234	-0.025	-0.250%	-0.250%
	A	8/23/2003	0.259	0.259	0.024	0.240%	0.240%
	A	5/29/2003	0.235	0.235	-0.019	-0.190%	-0.190%
	A	12/10/2002	0.254	0.254	0.019	0.190%	0.190%
	A	7/2/2002	0.235	0.235	0.021	0.210%	0.210%
	A	1/8/2002	0.214	0.214	-0.019	-0.190%	-0.190%
	A	7/30/2001	0.233	0.233			
LPRM Card 6A-48-09	B	1/28/2004	0.222	0.222	-0.037	-0.370%	-0.370%
	B	7/15/2003	0.259	0.259	0.015	0.150%	0.150%
	B	1/21/2003	0.244	0.244	-0.009	-0.090%	-0.090%
	B	8/5/2002	0.253	0.253	0.014	0.140%	0.140%
	B	3/2/2002	0.239	0.239	-0.007	-0.070%	-0.070%
	B	9/7/2001	0.246	0.246	-0.004	-0.040%	-0.040%
	B	3/24/2001	0.250	0.250			
LPRM Card 5A-48-17	C	1/15/2004	0.236	0.236	0.076	0.760%	0.760%
	C	8/2/2003	0.160	0.160	-0.073	-0.730%	-0.730%
	C	2/9/2003	0.233	0.233	0.000	0.000%	0.000%
	C	8/30/2002	0.233	0.233	-0.030	-0.300%	-0.300%
	C	3/13/2002	0.263	0.263	0.036	0.360%	0.360%
	C	9/23/2001	0.227	0.227	-0.016	-0.160%	-0.160%
	C	4/8/2001	0.243	0.243			
LPRM Card 1C-08-49	D	1/1/2004	0.247	0.247	0.018	0.180%	0.180%
	D	6/20/2003	0.229	0.229			
	D	12/31/2002	NA	NA			
	D	7/13/2002	NA	NA			
	D	1/29/2002	NA	NA			
	D	8/17/2001	0.241	0.241	-0.041	-0.410%	-0.410%
	D	2/25/2001	0.282	0.282			
LPRM Card 2C-08-41	E	2/9/2004	0.220	0.220	0.017	0.170%	0.170%
	E	8/19/2003	0.203	0.203	-0.022	-0.220%	-0.220%
	E	5/27/2003	0.225	0.225			
	E	2/4/2003	NA	NA			
	E	1/10/2002	0.224	0.224	-0.038	-0.380%	-0.380%
	E	7/30/2001	0.262	0.262			
LPRM Card 1C-32-57	F	1/29/2004	0.168	0.168	-0.076	-0.760%	-0.760%
	F	7/7/2003	0.244	0.244	0.038	0.380%	0.380%
	F	1/24/2003	0.206	0.206	-0.043	-0.430%	-0.430%
	F	8/10/2002	0.249	0.249	0.018	0.180%	0.180%
	F	2/12/2002	0.231	0.231	0.000	0.000%	0.000%
	F	9/11/2001	0.231	0.231	-0.022	-0.220%	-0.220%
	F	3/24/2001	0.253	0.253			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 17S:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 3C-56-41	A	7/20/2004	8.024	8.024	-0.019	-0.190%	-0.190%
	A	8/23/2003	8.043	8.043	0.103	1.030%	1.030%
	A	5/29/2003	7.940	7.940	-0.098	-0.980%	-0.980%
	A	12/10/2002	8.038	8.038	-0.085	-0.850%	-0.850%
	A	7/2/2002	8.123	8.123	0.146	1.460%	1.460%
	A	1/8/2002	7.977	7.977	-0.051	-0.510%	-0.510%
	A	7/30/2001	8.028	8.028			
LPRM Card 1C-16-57	B	1/28/2004	8.068	8.068	0.039	0.390%	0.390%
	B	7/15/2003	8.029	8.029	-0.002	-0.020%	-0.020%
	B	1/21/2003	8.031	8.031	0.003	0.030%	0.030%
	B	8/5/2002	8.028	8.028	0.015	0.150%	0.150%
	B	3/2/2002	8.013	8.013	-0.035	-0.350%	-0.350%
	B	9/7/2001	8.048	8.048	0.028	0.280%	0.280%
	B	3/24/2001	8.020	8.020			
LPRM Card 1C-32-49	C	1/15/2004	7.988	7.988	-0.019	-0.190%	-0.190%
	C	8/2/2003	8.007	8.007	0.009	0.090%	0.090%
	C	2/9/2003	7.998	7.998	0.008	0.080%	0.080%
	C	8/30/2002	7.990	7.990	-0.027	-0.270%	-0.270%
	C	3/13/2002	8.017	8.017	-0.011	-0.110%	-0.110%
	C	9/23/2001	8.028	8.028	0.028	0.280%	0.280%
	C	4/8/2001	8.000	8.000			
LPRM Card 2C-40-49	D	1/1/2004	7.995	7.995	-0.117	-1.170%	-1.170%
	D	6/20/2003	8.112	8.112	0.184	1.840%	1.840%
	D	12/31/2002	7.928	7.928	-0.062	-0.620%	-0.620%
	D	7/13/2002	7.990	7.990	-0.102	-1.020%	-1.020%
	D	1/29/2002	8.092	8.092	0.106	1.060%	1.060%
	D	8/17/2001	7.986	7.986	-0.056	-0.560%	-0.560%
	D	2/25/2001	8.042	8.042			
LPRM Card 3C-40-41	E	2/9/2004	8.058	8.058	0.054	0.540%	0.540%
	E	8/19/2003	8.004	8.004	0.002	0.020%	0.020%
	E	5/27/2003	8.002	8.002	-0.026	-0.260%	-0.260%
	E	2/4/2003	8.028	8.028	0.007	0.070%	0.070%
	E	1/10/2002	8.021	8.021			
LPRM Card 2C-16-41	F	1/29/2004	8.005	8.005	0.005	0.050%	0.050%
	F	7/7/2003	8.000	8.000	-0.153	-1.530%	-1.530%
	F	1/24/2003	8.153	8.153	0.041	0.410%	0.410%
	F	8/10/2002	8.112	8.112	0.048	0.480%	0.480%
	F	2/12/2002	8.064	8.064	0.027	0.270%	0.270%
	F	9/11/2001	8.037	8.037	0.002	0.020%	0.020%
	F	3/24/2001	8.035	8.035			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 17S:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 3C-56-41	A	7/20/2004	0.270	0.270	0.056	0.560%	0.560%
	A	8/23/2003	0.214	0.214	-0.098	-0.980%	-0.980%
	A	5/29/2003	0.312	0.312	0.108	1.080%	1.080%
	A	12/10/2002	0.204	0.204	-0.056	-0.560%	-0.560%
	A	7/2/2002	0.260	0.260	-0.029	-0.290%	-0.290%
	A	1/8/2002	0.289	0.289	0.022	0.220%	0.220%
	A	7/30/2001	0.267	0.267			
LPRM Card 1C-16-57	B	1/28/2004	0.240	0.240	-0.002	-0.020%	-0.020%
	B	7/15/2003	0.242	0.242	0.057	0.570%	0.570%
	B	1/21/2003	0.185	0.185	-0.065	-0.650%	-0.650%
	B	8/5/2002	0.250	0.250	0.012	0.120%	0.120%
	B	3/2/2002	0.238	0.238	0.021	0.210%	0.210%
	B	9/7/2001	0.217	0.217	-0.034	-0.340%	-0.340%
	B	3/24/2001	0.251	0.251			
LPRM Card 1C-32-49	C	1/15/2004	0.225	0.225	-0.029	-0.290%	-0.290%
	C	8/2/2003	0.254	0.254	0.017	0.170%	0.170%
	C	2/9/2003	0.237	0.237	0.012	0.120%	0.120%
	C	8/30/2002	0.225	0.225	-0.015	-0.150%	-0.150%
	C	3/13/2002	0.240	0.240	-0.003	-0.030%	-0.030%
	C	9/23/2001	0.243	0.243	0.030	0.300%	0.300%
	C	4/8/2001	0.213	0.213			
LPRM Card 2C-40-49	D	1/1/2004	0.214	0.214	-0.018	-0.180%	-0.180%
	D	6/20/2003	0.232	0.232	-0.011	-0.110%	-0.110%
	D	12/31/2002	0.243	0.243	0.063	0.630%	0.630%
	D	7/13/2002	0.180	0.180	-0.052	-0.520%	-0.520%
	D	1/29/2002	0.232	0.232	-0.006	-0.060%	-0.060%
	D	8/17/2001	0.238	0.238	-0.035	-0.350%	-0.350%
	D	2/25/2001	0.273	0.273			
LPRM Card 3C-40-41	E	2/9/2004	0.235	0.235	0.004	0.040%	0.040%
	E	8/19/2003	0.231	0.231	0.007	0.070%	0.070%
	E	5/27/2003	0.224	0.224	0.010	0.100%	0.100%
	E	2/4/2003	0.214	0.214	-0.008	-0.080%	-0.080%
	E	1/10/2002	0.222	0.222			
LPRM Card 2C-16-41	F	1/29/2004	0.316	0.316	-0.008	-0.080%	-0.080%
	F	7/7/2003	0.324	0.324	0.101	1.010%	1.010%
	F	1/24/2003	0.223	0.223	-0.116	-1.160%	-1.160%
	F	8/10/2002	0.339	0.339	0.021	0.210%	0.210%
	F	2/12/2002	0.318	0.318	0.035	0.350%	0.350%
	F	9/11/2001	0.283	0.283	-0.030	-0.300%	-0.300%
	F	3/24/2001	0.313	0.313			

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Table 17T:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 4C-08-25	A	7/20/2004	7.941	7.941	-0.019	-0.190%	-0.190%
	A	8/23/2003	7.960	7.960	-0.040	-0.400%	-0.400%
	A	5/29/2003	8.000	8.000	0.054	0.540%	0.540%
	A	12/10/2002	7.946	7.946	0.013	0.130%	0.130%
	A	7/2/2002	7.933	7.933	-0.023	-0.230%	-0.230%
	A	1/8/2002	7.956	7.956	0.021	0.210%	0.210%
	A	7/30/2001	7.935	7.935			
LPRM Card 3C-32-41	B	1/28/2004	8.148	8.148	0.059	0.590%	0.590%
	B	7/15/2003	8.089	8.089	0.016	0.160%	0.160%
	B	1/21/2003	8.073	8.073	0.012	0.120%	0.120%
	B	8/5/2002	8.061	8.061	-0.004	-0.040%	-0.040%
	B	3/2/2002	8.065	8.065	-0.027	-0.270%	-0.270%
	B	9/7/2001	8.092	8.092	0.067	0.670%	0.670%
	B	3/24/2001	8.025	8.025			
LPRM Card 2C-16-33	C	1/15/2004	10.730	8.028	2.696	26.960%	*outlier*
	C	8/2/2003	8.034	8.034	-0.009	-0.090%	-0.090%
	C	2/9/2003	8.043	8.043	0.024	0.240%	0.240%
	C	8/30/2002	8.019	8.019	0.010	0.100%	0.100%
	C	3/13/2002	8.009	8.009	0.004	0.040%	0.040%
	C	9/23/2001	8.005	8.005	-0.006	-0.060%	-0.060%
	C	4/8/2001	8.011	8.011			
LPRM Card 3C-24-33	D	1/1/2004	8.005	8.005	-0.181	-1.810%	-1.810%
	D	6/20/2003	8.186	8.186	0.143	1.430%	1.430%
	D	12/31/2002	8.043	8.043	0.103	1.030%	1.030%
	D	7/13/2002	7.940	7.940	-0.162	-1.620%	-1.620%
	D	1/29/2002	8.102	8.102	-0.060	-0.600%	-0.600%
	D	8/17/2001	8.162	8.162	0.105	1.050%	1.050%
	D	2/25/2001	8.057	8.057			
LPRM Card 4C-24-25	E	7/30/2001	7.935	7.935	0.041	0.410%	0.410%
	E	1/10/2002	7.894	7.894	-0.070	-0.700%	-0.700%
	E	2/4/2003	7.964	7.964	0.000	0.000%	0.000%
	E	5/27/2003	7.964	7.964	0.026	0.260%	0.260%
	E	8/19/2003	7.938	7.938	0.013	0.130%	0.130%
	E	2/9/2004	7.925	7.925			
LPRM Card 3C-48-41	F	1/29/2004	7.975	7.975	-0.078	-0.780%	-0.780%
	F	7/7/2003	8.053	8.053	0.096	0.960%	0.960%
	F	1/24/2003	7.957	7.957	-0.055	-0.550%	-0.550%
	F	8/10/2002	8.012	8.012	0.027	0.270%	0.270%
	F	2/12/2002	7.985	7.985	-0.069	-0.690%	-0.690%
	F	9/11/2001	8.054	8.054	0.007	0.070%	0.070%
	F	3/24/2001	8.047	8.047			

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Table 17T:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 4C-08-25	A	7/20/2004	0.247	0.247	0.084	0.840%	0.840%
	A	8/23/2003	0.163	0.163	-0.066	-0.660%	-0.660%
	A	5/29/2003	0.229	0.229	0.027	0.270%	0.270%
	A	12/10/2002	0.202	0.202	-0.050	-0.500%	-0.500%
	A	7/2/2002	0.252	0.252	0.009	0.090%	0.090%
	A	1/8/2002	0.243	0.243	0.015	0.150%	0.150%
	A	7/30/2001	0.228	0.228			
LPRM Card 3C-32-41	B	1/28/2004	0.213	0.213	-0.015	-0.150%	-0.150%
	B	7/15/2003	0.228	0.228	-0.031	-0.310%	-0.310%
	B	1/21/2003	0.259	0.259	0.035	0.350%	0.350%
	B	8/5/2002	0.224	0.224	0.013	0.130%	0.130%
	B	3/2/2002	0.211	0.211	-0.061	-0.610%	-0.610%
	B	9/7/2001	0.272	0.272	0.049	0.490%	0.490%
	B	3/24/2001	0.223	0.223			
LPRM Card 2C-16-33	C	1/15/2004	6.920	0.347	6.803	68.030%	outlier
	C	8/2/2003	0.117	0.117	-0.112	-1.120%	-1.120%
	C	2/9/2003	0.229	0.229	0.042	0.420%	0.420%
	C	8/30/2002	0.187	0.187	-0.064	-0.640%	-0.640%
	C	3/13/2002	0.251	0.251	0.029	0.290%	0.290%
	C	9/23/2001	0.222	0.222	-0.031	-0.310%	-0.310%
	C	4/8/2001	0.253	0.253			
LPRM Card 3C-24-33	D	1/1/2004	0.240	0.240	0.019	0.190%	0.190%
	D	6/20/2003	0.221	0.221	-0.024	-0.240%	-0.240%
	D	12/31/2002	0.245	0.245	0.009	0.090%	0.090%
	D	7/13/2002	0.236	0.236	0.014	0.140%	0.140%
	D	1/29/2002	0.222	0.222	-0.158	-1.580%	-1.580%
	D	8/17/2001	0.380	0.380	0.108	1.080%	1.080%
	D	2/25/2001	0.272	0.272			
LPRM Card 4C-24-25	E	2/9/2004	0.232	0.232	-0.007	-0.070%	-0.070%
	E	8/19/2003	0.239	0.239	0.025	0.250%	0.250%
	E	5/27/2003	0.214	0.214	0.035	0.350%	0.350%
	E	2/4/2003	0.179	0.179	0.003	0.030%	0.030%
	E	1/10/2002	0.176	0.176	-0.058	-0.580%	-0.580%
	E	7/30/2001	0.234	0.234			
LPRM Card 3C-48-41	F	1/29/2004	0.192	0.192	-0.046	-0.460%	-0.460%
	F	7/7/2003	0.238	0.238	0.020	0.200%	0.200%
	F	1/24/2003	0.218	0.218	-0.010	-0.100%	-0.100%
	F	8/10/2002	0.228	0.228	-0.009	-0.090%	-0.090%
	F	2/12/2002	0.237	0.237	0.008	0.080%	0.080%
	F	9/11/2001	0.229	0.229	-0.044	-0.440%	-0.440%
	F	3/24/2001	0.273	0.273			

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Table 17U:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 5C-40-25	A	7/20/2004	8.115	8.115	0.026	0.260%	0.260%
	A	8/23/2003	8.089	8.089	0.076	0.760%	0.760%
	A	5/29/2003	8.013	8.013	-0.039	-0.390%	-0.390%
	A	12/10/2002	8.052	8.052	-0.043	-0.430%	-0.430%
	A	7/2/2002	8.095	8.095	0.015	0.150%	0.150%
	A	1/8/2002	8.080	8.080	0.010	0.100%	0.100%
	A	7/30/2001	8.070	8.070			
LPRM Card 4C-16-25	B	1/28/2004	8.063	8.063	0.008	0.080%	0.080%
	B	7/15/2003	8.055	8.055	-0.002	-0.020%	-0.020%
	B	1/21/2003	8.057	8.057	-0.001	-0.010%	-0.010%
	B	8/5/2002	8.058	8.058	0.001	0.010%	0.010%
	B	3/2/2002	8.057	8.057	-0.027	-0.270%	-0.270%
	B	9/7/2001	8.084	8.084	0.027	0.270%	0.270%
	B	3/24/2001	8.057	8.057			
LPRM Card 3C-48-33	C	1/15/2004	7.991	7.991	0.023	0.230%	0.230%
	C	8/2/2003	7.968	7.968	0.012	0.120%	0.120%
	C	2/9/2003	7.956	7.956	-0.011	-0.110%	-0.110%
	C	8/30/2002	7.967	7.967	-0.022	-0.220%	-0.220%
	C	3/13/2002	7.989	7.989	-0.176	-1.760%	-1.760%
	C	9/23/2001	8.165	8.165	0.098	0.980%	0.980%
	C	4/8/2001	8.067	8.067			
LPRM Card 4C-56-33	D	1/1/2004	8.075	8.075	0.028	0.280%	0.280%
	D	6/20/2003	8.047	8.047	-0.049	-0.490%	-0.490%
	D	12/31/2002	8.096	8.096	0.018	0.180%	0.180%
	D	7/13/2002	8.078	8.078	-0.009	-0.090%	-0.090%
	D	1/29/2002	8.087	8.087	0.047	0.470%	0.470%
	D	8/17/2001	8.040	8.040	-0.022	-0.220%	-0.220%
	D	2/25/2001	8.062	8.062			
LPRM Card 5C-56-25	E	7/30/2001	8.052	8.052	0.106	1.060%	1.060%
	E	1/10/2002	7.946	7.946	-0.016	-0.160%	-0.160%
	E	2/4/2003	7.962	7.962	0.044	0.440%	0.440%
	E	5/27/2003	7.918	7.918	-0.096	-0.960%	-0.960%
	E	8/19/2003	8.014	8.014	0.065	0.650%	0.650%
	E	2/9/2004	7.949	7.949			
LPRM Card 4C-32-25	F	1/29/2004	7.998	7.998	-0.019	-0.190%	-0.190%
	F	7/7/2003	8.017	8.017	-0.011	-0.110%	-0.110%
	F	1/24/2003	8.028	8.028	-0.068	-0.680%	-0.680%
	F	8/10/2002	8.096	8.096	0.069	0.690%	0.690%
	F	2/12/2002	8.027	8.027	0.000	0.000%	0.000%
	F	9/11/2001	8.027	8.027	0.025	0.250%	0.250%
	F	3/24/2001	8.002	8.002			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 17U:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 5C-40-25	A	7/20/2004	0.330	0.330	0.055	0.550%	0.550%
	A	8/23/2003	0.275	0.275	0.026	0.260%	0.260%
	A	5/29/2003	0.249	0.249	0.082	0.820%	0.820%
	A	12/10/2002	0.167	0.167	-0.136	-1.360%	-1.360%
	A	7/2/2002	0.303	0.303	-0.046	-0.460%	-0.460%
	A	1/8/2002	0.349	0.349	0.114	1.140%	1.140%
	A	7/30/2001	0.235	0.235			
LPRM Card 4C-16-25	B	1/28/2004	0.227	0.227	-0.008	-0.080%	-0.080%
	B	7/15/2003	0.235	0.235	0.007	0.070%	0.070%
	B	1/21/2003	0.228	0.228	0.000	0.000%	0.000%
	B	8/5/2002	0.228	0.228	-0.004	-0.040%	-0.040%
	B	3/2/2002	0.232	0.232	0.015	0.150%	0.150%
	B	9/7/2001	0.217	0.217	-0.015	-0.150%	-0.150%
	B	3/24/2001	0.232	0.232			
LPRM Card 3C-48-33	C	1/15/2004	0.301	0.301	0.013	0.130%	0.130%
	C	8/2/2003	0.288	0.288	0.007	0.070%	0.070%
	C	2/9/2003	0.281	0.281	-0.009	-0.090%	-0.090%
	C	8/30/2002	0.290	0.290	-0.016	-0.160%	-0.160%
	C	3/13/2002	0.306	0.306	0.006	0.060%	0.060%
	C	9/23/2001	0.300	0.300	-0.015	-0.150%	-0.150%
	C	4/8/2001	0.315	0.315			
LPRM Card 4C-56-33	D	1/1/2004	0.243	0.243	0.029	0.290%	0.290%
	D	6/20/2003	0.214	0.214	-0.019	-0.190%	-0.190%
	D	12/31/2002	0.233	0.233	-0.027	-0.270%	-0.270%
	D	7/13/2002	0.260	0.260	0.003	0.030%	0.030%
	D	1/29/2002	0.257	0.257	-0.018	-0.180%	-0.180%
	D	8/17/2001	0.275	0.275	-0.014	-0.140%	-0.140%
	D	2/25/2001	0.289	0.289			
LPRM Card 5C-56-25	E	2/9/2004	0.259	0.259	0.023	0.230%	0.230%
	E	8/19/2003	0.236	0.236	-0.025	-0.250%	-0.250%
	E	5/27/2003	0.261	0.261	0.035	0.350%	0.350%
	E	2/4/2003	0.226	0.226	-0.027	-0.270%	-0.270%
	E	1/10/2002	0.253	0.253	0.054	0.540%	0.540%
	E	7/30/2001	0.199	0.199			
LPRM Card 4C-32-25	F	1/29/2004	0.205	0.205	-0.050	-0.500%	-0.500%
	F	7/7/2003	0.255	0.255	0.037	0.370%	0.370%
	F	1/24/2003	0.218	0.218	-0.027	-0.270%	-0.270%
	F	8/10/2002	0.245	0.245	-0.004	-0.040%	-0.040%
	F	2/12/2002	0.249	0.249	0.028	0.280%	0.280%
	F	9/11/2001	0.221	0.221	-0.016	-0.160%	-0.160%
	F	3/24/2001	0.237	0.237			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 17V:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 6C-24-09	A	7/20/2004	8.048	8.048	0.000	0.000%	0.000%
	A	8/23/2003	8.048	8.048	-0.027	-0.270%	-0.270%
	A	5/29/2003	8.075	8.075	-0.023	-0.230%	-0.230%
	A	12/10/2002	8.098	8.098	0.045	0.450%	0.450%
	A	7/2/2002	8.053	8.053	-0.002	-0.020%	-0.020%
	A	1/8/2002	8.055	8.055	0.005	0.050%	0.050%
	A	7/30/2001	8.050	8.050			
LPRM Card 5C-48-25	B	1/28/2004	8.090	8.090	0.050	0.500%	0.500%
	B	7/15/2003	8.040	8.040	0.031	0.310%	0.310%
	B	1/21/2003	8.009	8.009	0.084	0.840%	0.840%
	B	8/5/2002	7.925	7.925	-0.156	-1.560%	-1.560%
	B	3/2/2002	8.081	8.081	-0.003	-0.030%	-0.030%
	B	9/7/2001	8.084	8.084	0.058	0.580%	0.580%
	B	3/24/2001	8.026	8.026			
LPRM Card 4C-32-17	C	1/15/2004	7.983	7.983	-0.055	-0.550%	-0.550%
	C	8/2/2003	8.038	8.038	0.053	0.530%	0.530%
	C	2/9/2003	7.985	7.985	-0.014	-0.140%	-0.140%
	C	8/30/2002	7.999	7.999	0.065	0.650%	0.650%
	C	3/13/2002	7.934	7.934	-0.044	-0.440%	-0.440%
	C	9/23/2001	7.978	7.978	-0.018	-0.180%	-0.180%
	C	4/8/2001	7.996	7.996			
LPRM Card 5C-08-17	D	1/1/2004	8.086	8.086	-0.029	-0.290%	-0.290%
	D	6/20/2003	8.115	8.115	0.075	0.750%	0.750%
	D	12/31/2002	8.040	8.040	0.047	0.470%	0.470%
	D	7/13/2002	7.993	7.993	-0.080	-0.800%	-0.800%
	D	1/29/2002	8.073	8.073	-0.007	-0.070%	-0.070%
	D	8/17/2001	8.080	8.080	0.040	0.400%	0.400%
	D	2/25/2001	8.040	8.040			
LPRM Card 6C-40-09	E	2/9/2004	7.952	7.952	0.026	0.260%	0.260%
	E	8/19/2003	7.926	7.926	-0.003	-0.030%	-0.030%
	E	5/27/2003	7.929	7.929	-0.067	-0.670%	-0.670%
	E	2/4/2003	7.996	7.996	0.049	0.490%	0.490%
	E	1/10/2002	7.947	7.947	-0.071	-0.710%	-0.710%
	E	7/30/2001	8.018	8.018			
LPRM Card 5C-16-09	F	1/29/2004	7.995	7.995	-0.003	-0.030%	-0.030%
	F	7/7/2003	7.998	7.998	-0.025	-0.250%	-0.250%
	F	1/24/2003	8.023	8.023	0.025	0.250%	0.250%
	F	8/10/2002	7.998	7.998	-0.019	-0.190%	-0.190%
	F	2/12/2002	8.017	8.017	-0.020	-0.200%	-0.200%
	F	9/11/2001	8.037	8.037	0.002	0.020%	0.020%
	F	3/24/2001	8.035	8.035			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 17V:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 6C-24-09	A	7/20/2004	0.355	0.355	-0.017	-0.170%	-0.170%
	A	8/23/2003	0.372	0.372	-0.007	-0.070%	-0.070%
	A	5/29/2003	0.379	0.379	0.014	0.140%	0.140%
	A	12/10/2002	0.365	0.365	-0.007	-0.070%	-0.070%
	A	7/2/2002	0.372	0.372	-0.023	-0.230%	-0.230%
	A	1/8/2002	0.395	0.395	0.080	0.800%	0.800%
	A	7/30/2001	0.315	0.315			
LPRM Card 5C-48-25	B	1/28/2004	0.250	0.250	-0.002	-0.020%	-0.020%
	B	7/15/2003	0.252	0.252	0.005	0.050%	0.050%
	B	1/21/2003	0.247	0.247	-0.001	-0.010%	-0.010%
	B	8/5/2002	0.248	0.248	0.027	0.270%	0.270%
	B	3/2/2002	0.221	0.221	0.002	0.020%	0.020%
	B	9/7/2001	0.219	0.219	-0.019	-0.190%	-0.190%
	B	3/24/2001	0.238	0.238			
LPRM Card 4C-32-17	C	1/15/2004	0.239	0.239	-0.091	-0.910%	-0.910%
	C	8/2/2003	0.330	0.330	0.094	0.940%	0.940%
	C	2/9/2003	0.236	0.236	-0.014	-0.140%	-0.140%
	C	8/30/2002	0.250	0.250	0.004	0.040%	0.040%
	C	3/13/2002	0.246	0.246	0.021	0.210%	0.210%
	C	9/23/2001	0.225	0.225	-0.016	-0.160%	-0.160%
	C	4/8/2001	0.241	0.241			
LPRM Card 5C-08-17	D	1/1/2004	0.207	0.207	-0.030	-0.300%	-0.300%
	D	6/20/2003	0.237	0.237	0.000	0.000%	0.000%
	D	12/31/2002	0.237	0.237	0.050	0.500%	0.500%
	D	7/13/2002	0.187	0.187	-0.010	-0.100%	-0.100%
	D	1/29/2002	0.197	0.197	-0.048	-0.480%	-0.480%
	D	8/17/2001	0.245	0.245	0.020	0.200%	0.200%
	D	2/25/2001	0.225	0.225			
LPRM Card 6C-40-09	E	2/9/2004	0.260	0.260	0.010	0.100%	0.100%
	E	8/19/2003	0.250	0.250	0.016	0.160%	0.160%
	E	5/27/2003	0.234	0.234	0.003	0.030%	0.030%
	E	2/4/2003	0.231	0.231	-0.017	-0.170%	-0.170%
	E	1/10/2002	0.248	0.248	0.010	0.100%	0.100%
	E	7/30/2001	0.238	0.238			
LPRM Card 5C-16-09	F	1/29/2004	0.256	0.256	-0.016	-0.160%	-0.160%
	F	7/7/2003	0.272	0.272	0.066	0.660%	0.660%
	F	1/24/2003	0.206	0.206	-0.092	-0.920%	-0.920%
	F	8/10/2002	0.298	0.298	0.030	0.300%	0.300%
	F	2/12/2002	0.268	0.268	0.003	0.030%	0.030%
	F	9/11/2001	0.265	0.265	-0.001	-0.010%	-0.010%
	F	3/24/2001	0.266	0.266			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 17W:

	Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 6C-32-09	B	1/28/2004	8.042	8.042	0.008	0.080%	0.080%
	B	7/15/2003	8.034	8.034	0.004	0.040%	0.040%
	B	1/21/2003	8.030	8.030	0.001	0.010%	0.010%
	B	8/5/2002	8.029	8.029	0.009	0.090%	0.090%
	B	3/2/2002	8.020	8.020	-0.083	-0.830%	-0.830%
	B	9/7/2001	8.103	8.103	0.014	0.140%	0.140%
	B	3/24/2001	8.089	8.089			
LPRM Card 6C-40-17	D	1/1/2004	8.005	8.005	-0.124	-1.240%	-1.240%
	D	6/20/2003	8.129	8.129	0.223	2.230%	2.230%
	D	12/31/2002	7.906	7.906	-0.136	-1.360%	-1.360%
	D	7/13/2002	8.042	8.042	-0.015	-0.150%	-0.150%
	D	1/29/2002	8.057	8.057	0.093	0.930%	0.930%
	D	8/17/2001	7.964	7.964	-0.080	-0.800%	-0.800%
	D	2/25/2001	8.044	8.044			
LRPM Card 6C-48-09	F	1/29/2004	7.986	7.986	-0.027	-0.270%	-0.270%
	F	7/7/2003	8.013	8.013	0.015	0.150%	0.150%
	F	1/24/2003	7.998	7.998	0.017	0.170%	0.170%
	F	8/10/2002	7.981	7.981	-0.017	-0.170%	-0.170%
	F	2/12/2002	7.998	7.998	-0.006	-0.060%	-0.060%
	F	9/11/2001	8.004	8.004	0.016	0.160%	0.160%
	F	3/24/2001	7.988	7.988			

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 17W:

	Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
LPRM Card 6C-32-09	B	1/28/2004	0.231	0.231	-0.006	-0.060%	-0.060%
	B	7/15/2003	0.237	0.237	0.024	0.240%	0.240%
	B	1/21/2003	0.213	0.213	-0.025	-0.250%	-0.250%
	B	8/5/2002	0.238	0.238	-0.003	-0.030%	-0.030%
	B	3/2/2002	0.241	0.241	0.032	0.320%	0.320%
	B	9/7/2001	0.209	0.209	-0.025	-0.250%	-0.250%
	B	3/24/2001	0.234	0.234			
LPRM Card 6C-40-17	D	1/1/2004	0.226	0.226	0.037	0.370%	0.370%
	D	6/20/2003	0.189	0.189	-0.042	-0.420%	-0.420%
	D	12/31/2002	0.231	0.231	-0.017	-0.170%	-0.170%
	D	7/13/2002	0.248	0.248	0.031	0.310%	0.310%
	D	1/29/2002	0.217	0.217	-0.004	-0.040%	-0.040%
	D	8/17/2001	0.221	0.221	0.006	0.060%	0.060%
	D	2/25/2001	0.215	0.215			
LRPM Card 6C-48-09	F	1/29/2004	0.214	0.214	-0.022	-0.220%	-0.220%
	F	7/7/2003	0.236	0.236	0.021	0.210%	0.210%
	F	1/24/2003	0.215	0.215	-0.012	-0.120%	-0.120%
	F	8/10/2002	0.227	0.227	-0.009	-0.090%	-0.090%
	F	2/12/2002	0.236	0.236	0.005	0.050%	0.050%
	F	9/11/2001	0.231	0.231	-0.004	-0.040%	-0.040%
	F	3/24/2001	0.235	0.235			
		COUNT			1482	1482	1477
		AVERAGE				-0.060%	-0.020%
		STDEV				3.236%	0.676%
		VARIANCE				0.105%	0.005%
		KURTOSIS				424.135	52.609
		SKEWNESS				-6.235	-3.095
		MAXIMUM				68.030%	3.350%
		MINIMUM				-79.790%	-11.150%
		95%/95% TIF				2.036	2.036
		|AVG|+STDEV x 95/95 TIF				6.648%	1.397%
		% OF ORIGINAL COUNT				100.00%	99.66%

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 18A: APRM Flux Level

Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
A	7/20/2004	25.34	25.34	0.138	0.110%	0.110%
A	8/23/2003	25.202	25.202	0.476	0.381%	0.381%
A	5/29/2003	24.726	24.726	-0.644	-0.515%	-0.515%
A	12/10/2002	25.37	25.37	0.110	0.088%	0.088%
A	7/2/2002	25.26	25.26	0.191	0.153%	0.153%
A	1/8/2002	25.069	25.069	-0.341	-0.273%	-0.273%
A	7/30/2001	25.41	25.41			
B	1/28/2004	24.36	24.36	-0.979	-0.783%	-0.783%
B	7/15/2003	25.339	25.339	0.049	0.039%	0.039%
B	1/21/2003	25.29	25.29	0.463	0.370%	0.370%
B	8/5/2002	24.827	24.827	-0.523	-0.418%	-0.418%
B	3/2/2002	25.350	25.350	0.948	0.758%	0.758%
B	9/7/2001	24.402	24.402	-0.888	-0.710%	-0.710%
B	3/24/2001	25.29	25.29			
C	1/15/2004	25.04	25.04	0.022	0.018%	0.018%
C	8/2/2003	25.018	25.018	0.228	0.182%	0.182%
C	2/9/2003	24.79	24.79	-0.270	-0.216%	-0.216%
C	8/30/2002	25.06	25.06	0.040	0.032%	0.032%
C	3/13/2002	25.02	25.02	0.121	0.097%	0.097%
C	9/23/2001	24.899	24.899	-0.309	-0.247%	-0.247%
C	4/8/2001	254.208	25.208			
D	1/1/2004	25.003	25.003	0.103	0.082%	0.082%
D	6/20/2003	24.90	24.90	-0.170	-0.136%	-0.136%
D	12/31/2002	25.07	25.07	-0.110	-0.088%	-0.088%
D	7/13/2002	25.18	25.18	0.050	0.040%	0.040%
D	1/29/2002	25.13	25.13	0.207	0.166%	0.166%
D	8/17/2001	24.923	24.923	-0.167	-0.134%	-0.134%
D	2/25/2001	25.09	25.09			
E	2/9/2004	25.44	25.44	0.060	0.048%	0.048%
E	8/19/2003	25.38	25.38	0.040	0.032%	0.032%
E	5/27/2003	25.34	25.34	0.020	0.016%	0.016%
E	2/4/2003	25.32	25.32	0.000	0.000%	0.000%
E	1/10/2002	25.32	25.32	-0.160	-0.128%	-0.128%
E	7/30/2001	25.48	25.48			
F	1/29/2004	25.8	25.8	0.626	0.501%	0.501%
F	7/7/2003	25.174	25.174	-0.516	-0.413%	-0.413%
F	1/24/2003	25.69	25.69	0.410	0.328%	0.328%
F	8/10/2002	25.28	25.28	-0.360	-0.288%	-0.288%
F	2/12/2002	25.64	25.64	-0.110	-0.088%	-0.088%
F	9/11/2001	25.75	25.75	0.190	0.152%	0.152%
F	3/24/2001	25.56	25.56			
	COUNT			35	35	35
	AVERAGE				-0.024%	-0.024%
	STDEV				0.317%	0.317%
	VARIANCE				0.001%	0.001%
	KURTOSIS				0.888	0.888
	SKEWNESS				-0.221	-0.221
	MAXIMUM				0.758%	0.758%
	MINIMUM				-0.783%	-0.783%
	95%/95% TIF				2.490	2.490
	|AVG|+STDEV x 95/95 TIF				0.813%	0.813%
	% OF ORIGINAL COUNT				100.00%	100.00%

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 18A: APRM Flux Level

Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
A	7/20/2004	98.91	98.91	-1.300	-1.040%	-1.040%
A	8/23/2003	100.21	100.21	-0.150	-0.120%	-0.120%
A	5/29/2003	100.36	100.36	-0.070	-0.056%	-0.056%
A	12/10/2002	100.43	100.43	0.030	0.024%	0.024%
A	7/2/2002	100.40	100.40	0.010	0.008%	0.008%
A	1/8/2002	110.39	100.39	9.900	7.920%	7.920%
A	7/30/2001	100.49	100.49			
B	1/28/2004	100.04	100.04	-0.150	-0.120%	-0.120%
B	7/15/2003	100.19	100.19	0.060	0.048%	0.048%
B	1/21/2003	100.13	100.13	0.005	0.004%	0.004%
B	8/5/2002	100.125	100.125	-0.335	-0.268%	-0.268%
B	3/2/2002	100.46	100.46	0.470	0.376%	0.376%
B	9/7/2001	99.99	99.99	0.840	0.672%	0.672%
B	3/24/2001	99.15	99.15			
C	1/15/2004	1000.16	100.16	900.030	720.024%	outlier
C	8/2/2003	100.130	100.130	0.900	0.720%	0.720%
C	2/9/2003	99.23	99.23	-0.460	-0.368%	-0.368%
C	8/30/2002	99.69	99.69	-0.590	-0.472%	-0.472%
C	3/13/2002	100.28	100.28	-0.040	-0.032%	-0.032%
C	9/23/2001	100.32	100.32	0.190	0.152%	0.152%
C	4/8/2001	100.13	100.13			
D	1/1/2004	100.27	100.27	0.030	0.024%	0.024%
D	6/20/2003	100.24	100.24	0.070	0.056%	0.056%
D	12/31/2002	100.17	100.17	-0.130	-0.104%	-0.104%
D	7/13/2002	100.30	100.30	0.050	0.040%	0.040%
D	1/29/2002	100.25	100.25	0.080	0.064%	0.064%
D	8/17/2001	100.17	100.17	0.180	0.144%	0.144%
D	2/25/2001	99.99	99.99			
E	2/9/2004	100.59	100.59	0.170	0.136%	0.136%
E	8/19/2003	100.42	100.42	-0.430	-0.344%	-0.344%
E	5/27/2003	100.85	100.85	0.900	0.720%	0.720%
E	2/4/2003	99.95	99.95	-0.540	-0.432%	-0.432%
E	1/10/2002	100.49	100.49	-0.160	-0.128%	-0.128%
E	7/30/2001	100.65	100.65			
F	1/29/2004	100.07	100.07	-0.123	-0.098%	-0.098%
F	7/7/2003	100.193	100.193	-0.897	-0.718%	-0.718%
F	1/24/2003	101.09	101.09	0.380	0.304%	0.304%
F	8/10/2002	100.71	100.71	0.620	0.496%	0.496%
F	2/12/2002	100.09	100.09	-0.760	-0.608%	-0.608%
F	9/11/2001	100.85	100.85	0.070	0.056%	0.056%
F	3/24/2001	100.78	100.78			
	COUNT			35	35	34
	AVERAGE				20.774%	0.208%
	STDEV				121.679%	1.415%
	VARIANCE				148.058%	0.020%
	KURTOSIS				34.990	28.824
	SKEWNESS				5.915	5.165
	MAXIMUM				720.024%	7.920%
	MINIMUM				-1.040%	-1.040%
	95%/95% TIF				2.490	2.549
	|AVG|+STDEV x 95/95 TIF				323.755%	3.815%
	% OF ORIGINAL COUNT				100.00%	97.14%

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 18B: APRM Power

Description	Date	UPSC As Found	UPSC As Left	Delta	Delta % span	1st Outlier
A	7/20/2004	25.09	25.09	0.047	0.038%	0.038%
A	8/23/2003	25.043	25.043	-0.035	-0.028%	-0.028%
A	5/29/2003	25.078	25.078	0.008	0.006%	0.006%
A	12/10/2002	25.07	25.07	0.030	0.024%	0.024%
A	7/2/2002	25.04	25.04	-0.287	-0.230%	outlier
A	1/8/2002	25.327	25.327	0.187	0.150%	0.150%
A	7/30/2001	25.14	25.14			
B	1/28/2004	24.91	24.91	0.014	0.011%	0.011%
B	7/15/2003	24.896	24.896	-0.024	-0.019%	-0.019%
B	1/21/2003	24.92	24.92	0.068	0.054%	0.054%
B	8/5/2002	24.852	24.852	-0.087	-0.070%	-0.070%
B	3/2/2002	24.939	24.939	-0.061	-0.049%	-0.049%
B	9/7/2001	25.00	25.00	0.100	0.080%	0.080%
B	3/24/2001	24.90	24.90			
C	1/15/2004	25.01	25.01	0.075	0.060%	0.060%
C	8/2/2003	24.935	24.935	-0.025	-0.020%	-0.020%
C	2/9/2003	24.96	24.96	0.030	0.024%	0.024%
C	8/30/2002	24.93	24.93	-0.070	-0.056%	-0.056%
C	3/13/2002	25.00	25.00	0.078	0.062%	0.062%
C	9/23/2001	24.922	24.922	-0.017	-0.014%	-0.014%
C	4/8/2001	24.939	24.939			
D	1/1/2004	25.03	25.03	-0.010	-0.008%	-0.008%
D	6/20/2003	25.04	25.04	0.040	0.032%	0.032%
D	12/31/2002	25.00	25.00	-0.040	-0.032%	-0.032%
D	7/13/2002	25.04	25.04	-0.010	-0.008%	-0.008%
D	1/29/2002	25.05	25.05	-0.100	-0.080%	-0.080%
D	8/17/2001	25.156	25.15	0.276	0.221%	0.221%
D	2/25/2001	24.88	24.88			
E	2/9/2004	24.93	24.93	-0.050	-0.040%	-0.040%
E	8/19/2003	24.98	24.98	0.110	0.088%	0.088%
E	5/27/2003	24.87	24.87	0.150	0.120%	0.120%
E	2/4/2003	24.72	24.72	-0.220	-0.176%	-0.176%
E	1/10/2002	24.94	24.94	0.050	0.040%	0.040%
E	7/30/2001	24.89	24.89			
F	1/29/2004	25.00	25.00	0.017	0.014%	0.014%
F	7/7/2003	24.983	24.983	0.133	0.106%	0.106%
F	1/24/2003	24.85	24.85	-0.040	-0.032%	-0.032%
F	8/10/2002	24.89	24.89	-0.090	-0.072%	-0.072%
F	2/12/2002	24.98	24.98	-0.050	-0.040%	-0.040%
F	9/11/2001	25.03	25.03	0.100	0.080%	0.080%
F	3/24/2001	24.93	24.93			
	COUNT			35	35	34
	AVERAGE				0.007%	0.014%
	STDEV				0.085%	0.075%
	VARIANCE				0.000%	0.000%
	KURTOSIS				1.677	1.245
	SKEWNESS				-0.243	0.344
	MAXIMUM				0.221%	0.221%
	MINIMUM				-0.230%	-0.176%
	95%/95% TIF				2.490	2.549
	|AVG|+STDEV x 95/95 TIF				0.218%	0.206%
	% OF ORIGINAL COUNT				100.00%	97.14%

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 18B: APRM Power

Description	Date	DNSC As Found	DNSC As Left	Delta	Delta % span	1st Outlier
A	7/20/2004	100.34	100.34	-0.060	-0.048%	-0.048%
A	8/23/2003	100.40	100.40	0.050	0.040%	0.040%
A	5/29/2003	100.35	100.35	-0.060	-0.048%	-0.048%
A	12/10/2002	100.41	100.41	-0.020	-0.016%	-0.016%
A	7/2/2002	100.43	100.43	-0.100	-0.080%	-0.080%
A	1/8/2002	100.53	100.53	-0.030	-0.024%	-0.024%
A	7/30/2001	100.56	100.56			
B	1/28/2004	99.94	99.94	0.040	0.032%	0.032%
B	7/15/2003	99.900	99.900	0.000	0.000%	0.000%
B	1/21/2003	99.90	99.90	0.030	0.024%	0.024%
B	8/5/2002	99.870	99.870	-0.069	-0.055%	-0.055%
B	3/2/2002	99.939	99.939	0.039	0.031%	0.031%
B	9/7/2001	99.90	99.90	-0.060	-0.048%	-0.048%
B	3/24/2001	99.96	99.96			
C	1/15/2004	99.81	99.81	-0.181	-0.145%	-0.145%
C	8/2/2003	99.991	99.991	0.091	0.073%	0.073%
C	2/9/2003	99.90	99.90	-0.070	-0.056%	-0.056%
C	8/30/2002	99.97	99.97	-0.090	-0.072%	-0.072%
C	3/13/2002	100.06	100.06	0.000	0.000%	0.000%
C	9/23/2001	100.06	100.06	0.095	0.076%	0.076%
C	4/8/2001	99.965	99.965			
D	1/1/2004	100.12	100.12	0.090	0.072%	0.072%
D	6/20/2003	100.03	100.03	-0.030	-0.024%	-0.024%
D	12/31/2002	100.06	100.06	-0.130	-0.104%	-0.104%
D	7/13/2002	100.19	100.19	0.200	0.160%	0.160%
D	1/29/2002	99.99	99.99	-0.130	-0.104%	-0.104%
D	8/17/2001	100.12	100.12	0.040	0.032%	0.032%
D	2/25/2001	100.08	100.08			
E	2/9/2004	99.96	99.96	0.120	0.096%	0.096%
E	8/19/2003	99.84	99.84	-0.280	-0.224%	-0.224%
E	5/27/2003	100.12	100.12	0.340	0.272%	0.272%
E	2/4/2003	99.78	99.78	-0.120	-0.096%	-0.096%
E	1/10/2002	99.90	99.90	0.000	0.000%	0.000%
E	7/30/2001	99.90	99.90			
F	1/29/2004	99.94	99.94	0.157	0.126%	0.126%
F	7/7/2003	99.783	99.783	-0.217	-0.174%	-0.174%
F	1/24/2003	100.00	100.00	0.220	0.176%	0.176%
F	8/10/2002	99.78	99.78	0.030	0.024%	0.024%
F	2/12/2002	99.75	99.75	-0.210	-0.168%	-0.168%
F	9/11/2001	99.96	99.96	0.090	0.072%	0.072%
F	3/24/2001	99.87	99.87			
	COUNT			35	35	35
	AVERAGE				-0.005%	-0.005%
	STDEV				0.104%	0.104%
	VARIANCE				0.000%	0.000%
	KURTOSIS				0.543	0.543
	SKEWNESS				0.305	0.305
	MAXIMUM				0.272%	0.272%
	MINIMUM				-0.224%	-0.224%
	95%/95% TIF				2.490	2.490
	|AVG|+STDEV x 95/95 TIF				0.264%	0.264%
	% OF ORIGINAL COUNT				100.00%	100.00%

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 18C: APRM Alarm Point

Description	Date	75% As Found	75% As Left	Delta	Delta % span	1st Outlier
A	7/20/2004	75.72	75.72	0.034	0.027%	0.027%
A	8/23/2003	75.686	75.686	-0.035	-0.028%	-0.028%
A	5/29/2003	75.721	75.721	0.321	0.257%	0.257%
A	12/10/2002	75.4	75.4	0.400	0.320%	0.320%
A	7/2/2002	75	75	-0.902	-0.722%	-0.722%
A	1/8/2002	75.902	75.902	-0.098	-0.078%	-0.078%
A	7/30/2001	76	76			
B	1/28/2004	76	76	0.330	0.264%	0.264%
B	7/15/2003	75.67	75.67	0.170	0.136%	0.136%
B	1/21/2003	76	76	-0.628	-0.502%	-0.502%
B	8/5/2002	76.128	76.128	0.277	0.222%	0.222%
B	3/2/2002	75.851	75.851	0.851	0.681%	0.681%
B	9/7/2001	75	75	0.000	0.000%	0.000%
B	3/24/2001	75	75			
C	1/15/2004	75.8	75.8	0.010	0.008%	0.008%
C	8/2/2003	75.79	75.79	0.790	0.632%	0.632%
C	2/9/2003	75.00	75.00	-0.770	-0.616%	-0.616%
C	8/30/2002	75.77	75.77	-0.230	-0.184%	-0.184%
C	3/13/2002	76	76	-0.458	-0.366%	-0.366%
C	9/23/2001	76.458	76.458	0.061	0.049%	0.049%
C	4/8/2001	76.397	76.397			
D	1/1/2004	75.98	75.98	0.080	0.064%	0.064%
D	6/20/2003	75.9	75.9	0.900	0.720%	0.720%
D	12/31/2002	75	75	-1.000	-0.800%	-0.800%
D	7/13/2002	76	76	0.000	0.000%	0.000%
D	1/29/2002	76	76	0.000	0.000%	0.000%
D	8/17/2001	76	76	-0.240	-0.192%	-0.192%
D	2/25/2001	76.24	76.24			
E	2/9/2004	76.8	76.8	-0.200	-0.160%	-0.160%
E	8/19/2003	77	77	0.000	0.000%	0.000%
E	5/27/2003	77	77	0.010	0.008%	0.008%
E	2/4/2003	76.99	76.99	0.990	0.792%	0.792%
E	1/10/2002	76	76	-0.700	-0.560%	-0.560%
E	7/30/2001	76.7	76.7			
F	1/29/2004	76	76	-0.311	-0.249%	-0.249%
F	7/7/2003	76.311	76.311	0.311	0.249%	0.249%
F	1/24/2003	76	76	-0.370	-0.296%	-0.296%
F	8/10/2002	76.37	76.37	0.370	0.296%	0.296%
F	2/12/2002	76	76	0.000	0.000%	0.000%
F	9/11/2001	76	76	0.000	0.000%	0.000%
F	3/24/2001	76	76			
	COUNT			35	35	35
	AVERAGE				-0.001%	-0.001%
	STDEV				0.382%	0.382%
	VARIANCE				0.001%	0.001%
	KURTOSIS				0.157	0.157
	SKEWNESS				0.023	0.023
	MAXIMUM				0.792%	0.792%
	MINIMUM				-0.800%	-0.800%
	95%/95% TIF				2.490	2.490
	|AVG|+STDEV x 95/95 TIF				0.952%	0.952%
	% OF ORIGINAL COUNT				100.00%	100.00%

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 18C: APRM Alarm Point

Description	Date	108% As Found	108% As Left	Delta	Delta % span	1st Outlier
A	7/20/2004	107.19	107.19	0.010	0.008%	0.008%
A	8/23/2003	107.18	107.18	-0.010	-0.008%	-0.008%
A	5/29/2003	107.19	107.19	0.080	0.064%	0.064%
A	12/10/2002	107.11	107.11	-0.020	-0.016%	-0.016%
A	7/2/2002	107.13	107.13	-0.430	-0.344%	-0.344%
A	1/8/2002	107.56	107.56	0.160	0.128%	0.128%
A	7/30/2001	107.40	107.40			
B	1/28/2004	107.26	107.26	0.030	0.024%	0.024%
B	7/15/2003	107.23	107.23	-0.170	-0.136%	-0.136%
B	1/21/2003	107.40	107.40	-0.230	-0.184%	-0.184%
B	8/5/2002	107.630	107.630	0.270	0.216%	0.216%
B	3/2/2002	107.36	107.36	-0.120	-0.096%	-0.096%
B	9/7/2001	107.48	107.48	0.180	0.144%	0.144%
B	3/24/2001	107.30	107.30			
C	1/15/2004	107.41	107.41	0.110	0.088%	0.088%
C	8/2/2003	107.30	107.30	-0.110	-0.088%	-0.088%
C	2/9/2003	107.41	107.41	-0.060	-0.048%	-0.048%
C	8/30/2002	107.47	107.47	-0.350	-0.280%	-0.280%
C	3/13/2002	107.82	107.82	-0.160	-0.128%	-0.128%
C	9/23/2001	107.98	107.98	-0.060	-0.048%	-0.048%
C	4/8/2001	108.04	108.04			
D	1/1/2004	107.65	107.65	-0.060	-0.048%	-0.048%
D	6/20/2003	107.71	107.71	0.150	0.120%	0.120%
D	12/31/2002	107.56	107.56	0.100	0.080%	0.080%
D	7/13/2002	107.46	107.46	-0.390	-0.312%	-0.312%
D	1/29/2002	107.85	107.85	0.070	0.056%	0.056%
D	8/17/2001	107.78	107.78	0.060	0.048%	0.048%
D	2/25/2001	107.72	107.72			
E	2/9/2004	108.32	108.32	-0.070	-0.056%	-0.056%
E	8/19/2003	108.39	108.39	-0.100	-0.080%	-0.080%
E	5/27/2003	108.49	108.49	0.210	0.168%	0.168%
E	2/4/2003	108.28	108.28	-0.350	-0.280%	-0.280%
E	1/10/2002	108.63	108.63	0.510	0.408%	0.408%
E	7/30/2001	108.12	108.12			
F	1/29/2004	108.71	108.71	0.177	0.142%	0.142%
F	7/7/2003	108.533	108.533	0.003	0.002%	0.002%
F	1/24/2003	108.53	108.53	-0.030	-0.024%	-0.024%
F	8/10/2002	108.56	108.56	-0.090	-0.072%	-0.072%
F	2/12/2002	108.65	108.65	-0.130	-0.104%	-0.104%
F	9/11/2001	108.78	108.78	0.030	0.024%	0.024%
F	3/24/2001	108.75	108.75			
	COUNT			35	35	35
	AVERAGE				-0.018%	-0.018%
	STDEV				0.155%	0.155%
	VARIANCE				0.000%	0.000%
	KURTOSIS				0.902	0.902
	SKEWNESS				0.073	0.073
	MAXIMUM				0.408%	0.408%
	MINIMUM				-0.344%	-0.344%
	95%/95% TIF				2.490	2.490
	|AVG|+STDEV x 95/95 TIF				0.404%	0.404%
	% OF ORIGINAL COUNT				100.00%	100.00%

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 19: Recorder

Description	Date	25% inc As Found	25% inc As Left	Delta	Delta % span	1st Outlier
A	7/20/2004	2.006	2.006	-0.002	-0.020%	-0.020%
A	8/23/2003	2.008	2.008	-0.001	-0.010%	-0.010%
A	5/29/2003	2.009	2.009	-0.008	-0.080%	-0.080%
A	12/10/2002	2.017	2.017	0.015	0.150%	0.150%
A	7/2/2002	2.002	2.002	-0.003	-0.030%	-0.030%
A	1/8/2002	2.005	2.005	0.004	0.040%	0.040%
A	7/30/2001	2.001	2.001			
B	1/28/2004	2.001	2.001	0.005	0.050%	0.050%
B	7/15/2003	1.996	1.996	0.005	0.050%	0.050%
B	1/21/2003	1.991	1.991	-0.005	-0.050%	-0.050%
B	8/5/2002	1.996	1.996	0.000	0.000%	0.000%
B	3/2/2002	1.996	1.996	0.005	0.050%	0.050%
B	9/7/2001	1.991	1.991	0.007	0.070%	0.070%
B	3/24/2001	1.984	1.984			
C	1/15/2004	1.990	1.990	0.010	0.100%	0.100%
C	8/2/2003	1.980	1.980	-0.013	-0.130%	-0.130%
C	2/9/2003	1.993	1.993	-0.007	-0.070%	-0.070%
C	8/30/2002	2.000	2.000	0.000	0.000%	0.000%
C	3/13/2002	2.000	2.000	-0.043	-0.430%	-0.430%
C	9/23/2001	2.043	2.043	0.045	0.450%	0.450%
C	4/8/2001	1.998	1.998			
D	1/1/2004	1.991	1.991	0.001	0.010%	0.010%
D	6/20/2003	1.990	1.990	0.007	0.070%	0.070%
D	12/31/2002	1.983	1.983	-0.019	-0.190%	-0.190%
D	7/13/2002	2.002	2.002	0.020	0.200%	0.200%
D	1/29/2002	1.982	1.982	0.019	0.190%	0.190%
D	8/17/2001	1.963	1.963	-0.025	-0.250%	-0.250%
D	2/25/2001	1.988	1.988			
E	2/9/2004	2.003	2.003	0.004	0.040%	0.040%
E	8/19/2003	1.999	1.999	-0.003	-0.030%	-0.030%
E	5/27/2003	2.002	2.002	-0.005	-0.050%	-0.050%
E	2/4/2003	2.007	2.007	0.007	0.070%	0.070%
E	1/10/2002	2.000	2.000	-0.051	-0.510%	outlier
E	7/30/2001	2.051	2.051			
F	1/29/2004	1.977	1.977	-0.014	-0.140%	-0.140%
F	7/7/2003	1.991	1.991	0.006	0.060%	0.060%
F	1/24/2003	1.985	1.985	-0.015	-0.150%	-0.150%
F	8/10/2002	2.000	2.000	0.015	0.150%	0.150%
F	2/12/2002	1.985	1.985	-0.007	-0.070%	-0.070%
F	9/11/2001	1.992	1.992	-0.005	-0.050%	-0.050%
F	3/24/2001	1.997	1.997			
	COUNT			35	35	34
	AVERAGE				-0.015%	0.000%
	STDEV				0.170%	0.149%
	VARIANCE				0.000%	0.000%
	KURTOSIS				2.885	3.060
	SKEWNESS				-0.545	0.035
	MAXIMUM				0.450%	0.450%
	MINIMUM				-0.510%	-0.430%
	95%/95% TIF				2.490	2.549
	|AVG|+STDEV x 95/95 TIF				0.438%	0.379%
	% OF ORIGINAL COUNT				100.00%	97.14%

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 19: Recorder

Description	Date	125% inc As Found	125% inc As Left	Delta	Delta % span	1st Outlier
A	7/20/2004	10.010	10.010	0.005	0.050%	0.050%
A	8/23/2003	10.005	10.005	-0.001	-0.010%	-0.010%
A	5/29/2003	10.006	10.006	0.016	0.160%	0.160%
A	12/10/2002	9.990	9.990	-0.010	-0.100%	-0.100%
A	7/2/2002	10.000	10.000	-0.006	-0.060%	-0.060%
A	1/8/2002	10.006	10.006	-0.002	-0.020%	-0.020%
A	7/30/2001	10.008	10.008			
B	1/28/2004	10.006	10.006	-0.014	-0.140%	-0.140%
B	7/15/2003	10.020	10.020	0.027	0.270%	0.270%
B	1/21/2003	9.993	9.993	-0.003	-0.030%	-0.030%
B	8/5/2002	9.996	9.996	-0.062	-0.620%	-0.620%
B	3/2/2002	10.058	10.058	0.087	0.870%	0.870%
B	9/7/2001	9.971	9.971	-0.045	-0.450%	-0.450%
B	3/24/2001	10.016	10.016			
C	1/15/2004	10.003	10.003	-0.004	-0.040%	-0.040%
C	8/2/2003	10.007	10.007	0.007	0.070%	0.070%
C	2/9/2003	10.000	10.000	0.004	0.040%	0.040%
C	8/30/2002	9.996	9.996	0.016	0.160%	0.160%
C	3/13/2002	9.980	9.980	-0.080	-0.800%	-0.800%
C	9/23/2001	10.060	10.060	0.022	0.220%	0.220%
C	4/8/2001	10.038	10.038			
D	1/1/2004	9.974	9.974	-0.021	-0.210%	-0.210%
D	6/20/2003	9.995	9.995	0.008	0.080%	0.080%
D	12/31/2002	9.987	9.987	0.019	0.190%	0.190%
D	7/13/2002	9.968	9.968	-0.014	-0.140%	-0.140%
D	1/29/2002	9.982	9.982	0.013	0.130%	0.130%
D	8/17/2001	9.969	9.969	-0.034	-0.340%	-0.340%
D	2/25/2001	10.003	10.003			
E	2/9/2004	10.011	10.011	0.010	0.100%	0.100%
E	8/19/2003	10.001	10.001	-0.017	-0.170%	-0.170%
E	5/27/2003	10.018	10.018	0.013	0.130%	0.130%
E	2/4/2003	10.005	10.005	0.001	0.010%	0.010%
E	1/10/2002	10.004	10.004	0.041	0.410%	0.410%
E	7/30/2001	9.963	9.963			
F	1/29/2004	9.974	9.974	-0.030	-0.300%	-0.300%
F	7/7/2003	10.004	10.004	0.028	0.280%	0.280%
F	1/24/2003	9.976	9.976	-0.023	-0.230%	-0.230%
F	8/10/2002	9.999	9.999	-0.027	-0.270%	-0.270%
F	2/12/2002	10.026	10.026	0.071	0.710%	0.710%
F	9/11/2001	9.955	9.955	-0.089	-0.890%	-0.890%
F	3/24/2001	10.044	10.044			
	COUNT			35	35	35
	AVERAGE				-0.027%	-0.027%
	STDEV				0.353%	0.353%
	VARIANCE				0.001%	0.001%
	KURTOSIS				1.468	1.468
	SKEWNESS				-0.117	-0.117
	MAXIMUM				0.870%	0.870%
	MINIMUM				-0.890%	-0.890%
	95%/95% TIF				2.490	2.490
	|AVG|+STDEV x 95/95 TIF				0.905%	0.905%
	% OF ORIGINAL COUNT				100.00%	100.00%

ATTACHMENT 4: PLANT SPECIFIC ANALYZED DRIFT

Table 19: Recorder

Description	Date	25% dec As Found	25% dec As Left	Delta	Delta % span	1st Outlier
A	7/20/2004	2.007	2.007	0.005	0.050%	0.050%
A	8/23/2003	2.002	2.002	0.001	0.010%	0.010%
A	5/29/2003	2.001	2.001	0.000	0.000%	0.000%
A	12/10/2002	2.001	2.001	-0.001	-0.010%	-0.010%
A	7/2/2002	2.002	2.002	0.002	0.020%	0.020%
A	1/8/2002	2.000	2.000	-0.002	-0.020%	-0.020%
A	7/30/2001	2.002	2.002			
B	1/28/2004	1.989	1.989	-0.005	-0.050%	-0.050%
B	7/15/2003	1.994	1.994	0.003	0.030%	0.030%
B	1/21/2003	1.991	1.991	-0.004	-0.040%	-0.040%
B	8/5/2002	1.995	1.995	0.004	0.040%	0.040%
B	3/2/2002	1.991	1.991	0.043	0.430%	0.430%
B	9/7/2001	1.948	1.948	-0.041	-0.410%	-0.410%
B	3/24/2001	1.989	1.989			
C	1/15/2004	1.991	1.991	-0.008	-0.080%	-0.080%
C	8/2/2003	1.999	1.999	0.003	0.030%	0.030%
C	2/9/2003	1.996	1.996	-0.002	-0.020%	-0.020%
C	8/30/2002	1.998	1.998	0.002	0.020%	0.020%
C	3/13/2002	1.996	1.996	-0.048	-0.480%	-0.480%
C	9/23/2001	2.044	2.044	0.046	0.460%	0.460%
C	4/8/2001	1.998	1.998			
D	1/1/2004	1.989	1.989	-0.001	-0.010%	-0.010%
D	6/20/2003	1.990	1.990	0.000	0.000%	0.000%
D	12/31/2002	1.990	1.990	-0.012	-0.120%	-0.120%
D	7/13/2002	2.002	2.002	0.020	0.200%	0.200%
D	1/29/2002	1.982	1.982	-0.023	-0.230%	-0.230%
D	8/17/2001	2.005	2.005	-0.006	-0.060%	-0.060%
D	2/25/2001	2.011	2.011			
E	2/9/2004	2.003	2.003	0.004	0.040%	0.040%
E	8/19/2003	1.999	1.999	-0.004	-0.040%	-0.040%
E	5/27/2003	2.003	2.003	0.003	0.030%	0.030%
E	2/4/2003	2.000	2.000	0.000	0.000%	0.000%
E	1/10/2002	2.000	2.000	-0.047	-0.470%	-0.470%
E	7/30/2001	2.047	2.047			
F	1/29/2004	1.977	1.977	-0.014	-0.140%	-0.140%
F	7/7/2003	1.991	1.991	0.006	0.060%	0.060%
F	1/24/2003	1.985	1.985	-0.015	-0.150%	-0.150%
F	8/10/2002	2.000	2.000	0.014	0.140%	0.140%
F	2/12/2002	1.986	1.986	-0.006	-0.060%	-0.060%
F	9/11/2001	1.992	1.992	-0.013	-0.130%	-0.130%
F	3/24/2001	2.005	2.005			
	COUNT			35	35	35
	AVERAGE				-0.027%	-0.027%
	STDEV				0.189%	0.189%
	VARIANCE				0.000%	0.000%
	KURTOSIS				2.489	2.489
	SKEWNESS				-0.086	-0.086
	MAXIMUM				0.460%	0.460%
	MINIMUM				-0.480%	-0.480%
	95%/95% TIF				2.490	2.490
	|AVG|+STDEV x 95/95 TIF				0.497%	0.497%
	% OF ORIGINAL COUNT				100.00%	100.00%

ATTACHMENT 5
SETPOINT CALCULATION

1.0 Purpose

The purpose of this setpoint calculation is to document the basis for the current APRM and RBM non flow-biased setpoint and RBM flow-biased setpoints and calculate the new APRM flow-biased setpoints for EPU DCP 80048085.

2.0 References

See main body calculation Section 3.0

3.0 Assumptions

See main body calculation Section 6.0

4.0 Setpoint Calculation

4.1 APRM NON-FLOW BIASED SETPOINT (1SEXRS-Z34A/B/C/D/E/F-C51)

APRM non-flow biased setpoints are specified in terms of % RTP.
The setpoint in %RTP is translated to the setpoint in signal units (Vdc) by the following algorithm:

$$\frac{\text{Process Value}}{\text{Calibrated Span}} \times \frac{\text{Signal Span}}{1} = \text{Setpoint (in signal units)}$$

The setpoints will be calculated and tabulated in tables in section 5.1.

4.2 APRM FLOW BIASED SETPOINT: SINGLE LOOP RECIRC FLOW (1SEXSH-Z33A/B/C/D/E/F-C51)

All flow biased setpoints are calculated using the following formula. Reference 3.9.9 and 3.9.10.

$$0.57(W - DW) + X = \%\ \text{POWER}$$

Where W = %, Loop Recirculation Flow as a percentage of the loop recirculation flow which produces a rated core flow of 100 million lbs/hr

DW = Difference in indicated drive flow (in percent of drive flow which produces rated core flow) between two loop and single loop operation at the same core flow.
DW = 9% for single recirculation loop operation

X = SETPOINT BIAS FACTOR

For Flow Biased Setpoints, Recirculation Loop Drive Flow, W, is used as an indication of power level and used to set the scram and rod block setpoints as a function of power level.

The setpoints will be calculated and tabulated in tables in section 5.2.

4.3 APRM FLOW BIASED SETPOINT: TWO LOOP RECIRC FLOW (1SEXSH-Z33A/B/C/D/E/F-C51)

All flow biased setpoints are calculated using the following formula. Reference 3.9.9 and 3.9.10.

0.57(W - DW) + X = % POWER

Where W = %, Loop Recirculation Flow as a percentage of the loop recirculation flow which produces a rated core flow of 100 million lbs/hr

DW = Difference in indicated drive flow (in percent of drive flow which produces rated core flow) between two loop and single loop operation at the same core flow. DW = 0% for two loop operation

X = SETPOINT BIAS FACTOR

For Flow Biased Setpoints, Recirculation Loop Drive Flow, W, is used as an indication of power level and used to set the scram and rod block setpoints as a function of power level.

The setpoints will be calculated and tabulated in tables in section 5.3.

4.4 RBM SETPOINTS AND ALLOWABLE VALUE (1SEXRS-Z36ARB-C51 & 1SEXRS-Z36BRB-C51)

RBM non-flow biased setpoints are specified in terms of % RTP.
The setpoint in %RTP is translated to the setpoint in signal units (Vdc) by the following algorithm:

$$\frac{\text{Process Value}}{\text{Calibrated Span}} \times \frac{\text{Signal Span}}{1} = \text{Setpoint (in signal units)}$$

The setpoints will be calculated and tabulated in a table in section 5.4.

4.5 RBM FLOW BIASED SETPOINT: SINGLE LOOP RECIRC FLOW (1SEXRS-Z34ARB-C51 & 1SEXRS-Z34BRB-C51)

All flow biased setpoints are calculated using the following formula. See reference 3.2 for details.

0.66(W - DW) + X = % POWER

Where W = %, Loop Recirculation Flow as a percentage of the loop recirculation flow which produces a rated core flow of 100 million lbs/hr

DW = Difference in indicated drive flow (in percent of drive flow which produces rated core flow) between two loop and single loop operation at the same core flow. DW = 9% for single recirculation loop operation

X = SETPOINT BIAS FACTOR

For Flow Biased Setpoints, Recirculation Loop Drive Flow, W, is used as an indication of power level and used to set the scram and rod block setpoints as a function of power level.

The setpoints will be calculated and tabulated in tables in section 5.5.

4.6 RBM FLOW BIASED SETPOINTS: TWO (2) LOOP RECIRC FLOW (1SEXRS-Z34ARB-C51 & 1SEXRS-Z34BRB-C51)

All flow biased setpoints are calculated using the following formula. See reference 3.2 for details.

$$0.66(W - DW) + X = \%\ POWER$$

Where W = %, Loop Recirculation Flow as a percentage of the loop recirculation flow which produces a rated core flow of 100 million lbs/hr

DW = Difference in indicated drive flow (in percent of drive flow which produces rated core flow) between two loop and single loop operation at the same core flow. DW = 0% for two loop operation

X = SETPOINT BIAS FACTOR

For Flow Biased Setpoints, Recirculation Loop Drive Flow, W, is used as an indication of power level and used to set the scram and rod block setpoints as a function of power level.

The setpoints will be calculated and tabulated in tables in section 5.6.

5.1 APRM NON-FLOW BIASED SETPOINT

5.1.1

APRM Fixed Neutron Flux - Upscale			
Parameter	Req't, %RTP	Reference	Requirement in Vdc
NTSP	118 %RTP	Ref # 3.2	9.440 Vdc
AV	120 %RTP	Ref # 3.2	9.600 Vdc

5.1.2

APRM Neutron Flux - Upscale, Setdown			
Parameter	Req't, %RTP	Reference	Requirement in Vdc
NTSP	14 %RTP	Ref # 3.2	1.120 Vdc
AV	19 %RTP	Ref # 3.2	1.520 Vdc

9IR1

5.1.3

APRM Neutron Flux - Upscale, Startup			
Parameter	Req't, %RTP	Reference	Requirement in Vdc
NTSP	11 %RTP	Ref # 3.2	0.880 Vdc
AV	13 %RTP	Ref # 3.2	1.040 Vdc

9IR1

5.1.4

APRM Downscale			
Parameter	Req't, %RTP	Reference	Requirement in Vdc
NTSP	4 %RTP	Ref # 3.2	0.320 Vdc
AV	3 %RTP	Ref # 3.2	0.240 Vdc

5.1.5

APRM High Flow Clamped			
Parameter	Req't, %RTP	Reference	Requirement in Vdc
NTSP	113.5 %RTP	Ref # 3.2	9.080 Vdc
AV	115.5 %RTP	Ref # 3.2	9.240 Vdc

5.1.6

APRM Upscale Alarm Clamp			
Parameter	Req't, %RTP	Reference	Requirement in Vdc
NTSP	108 %RTP	Ref # 3.2	8.640 Vdc
AV	111 %RTP	Ref # 3.2	8.880 Vdc

5.2 APRM FLOW BIASED SETPOINT: SINGLE LOOP RECIRC FLOW

5.2.1

APRM Neutron Flux Upscale Rod Block, Single Loop			W in %			
Parameter	Formula	Reference	Requirement in Vdc		Req't, %RTP	
			10	60	10.0	60.0
NTSP	0.57(W-ΔW)+ 53	Ref# 3.9.10	4.286	6.566	53.6	82.1
AV	0.57(W-ΔW)+ 56	Ref# 3.9.10	4.526	6.806	56.6	85.1

5.2.2

APRM Simulated Thermal Power Upscale Scram, Single Loop			W in %			
Parameter	Formula	Reference	Requirement in Vdc		Req't, %RTP	
			10	60	10.0	60.0
NTSP	0.57(W-ΔW)+ 58	Ref# 3.9.10	4.686	6.966	58.6	87.1
AV	0.57(W-ΔW)+ 61	Ref# 3.9.10	4.926	7.206	61.6	90.1

5.3 APRM FLOW BIASED SETPOINT: TWO LOOP RECIRC FLOW

5.3.1

APRM Neutron Flux Upscale Rod Block, Two Loop			W in %			
Parameter	Formula	Reference	Requirement in Vdc		Req't, %RTP	
			0	70	0	70
NTSP	0.57(W-ΔW)+ 53	Ref# 3.9.10	4.240	7.432	53.0	92.9
AV	0.57(W-ΔW)+ 56	Ref# 3.9.10	4.480	7.672	56.0	95.9

5.3.2

APRM Simulated Thermal Power Upscale Scram, Two Loop			W in %			
Parameter	Formula	Reference	Requirement in Vdc		Req't, %RTP	
			30	70	30	70
NTSP	0.57(W-ΔW)+ 58	Ref# 3.9.10	6.008	7.832	75.1	97.9
AV	0.57(W-ΔW)+ 61	Ref# 3.9.10	6.248	8.072	78.1	100.9

5.4 RBM SETPOINTS AND ALLOWABLE VALUE

5.4.1

RBM Down Scale			
Parameter	Requirement	Reference	Requirement in Vdc
NTSP	5 %RTP	Ref # 3.2	0.400 Vdc
AV	3 %RTP	Ref # 3.2	0.240 Vdc

5.4.2

RBM LPRM Auto Bypass Setpoint			
Parameter	Requirement	Reference	Requirement in Vdc
Setpoint	3 %RTP	Ref # 3.2	0.240 Vdc

5.4.3

LPRM Level Card Upscale Trip Setpoint			
Parameter	Requirement	Reference	Requirement in Vdc
Setpoint	100 %RTP	Ref # 3.2	8.000 Vdc

5.4.4

LPRM Level Card Downscale Trip Setpoint			
Parameter	Requirement	Reference	Requirement in Vdc
Setpoint	4 %RTP	Ref # 3.2	0.320 Vdc

5.4.5

RBM Low Power Bypass			
Parameter	Requirement	Reference	Requirement in Vdc
NTSP	23.75 %RTP	Ref # 3.2	1.900 Vdc
AV	30 %RTP	Ref # 3.2	2.400 Vdc

5.5 RBM FLOW BIASED SETPOINT: SINGLE LOOP RECIRC FLOW

5.5.1

RBM Transfer Setpoint			W in %	
Parameter	Formula	Reference	Requirement in Vdc	Req't, %RTP
			50	50
Intermediate Transfer	0.66(W-ΔW)+ 47	Ref# Att.3	5.925	74.1
Normal Transfer	0.66(W-ΔW)+ 55	Ref# Att.3	6.565	82.1

5.5.2

RBM Upscale Rod Block			W in %	
Parameter	Formula	Reference	Requirement in Vdc	Req't, %RTP
			50	50
(Normal) NTSP	0.66(W-ΔW)+ 65	Ref# 3.9.8	7.365	92.1
(Normal) AV	0.66(W-ΔW)+ 68	Ref# 3.9.8	7.605	95.1
(Low) Setpoint	0.66(W-ΔW)+ 49	Ref# Att.2	6.085	76.1
(Intermediate) Setpoint	0.66(W-ΔW)+ 57	Ref# Att.2	6.725	84.1

5.5.3

RBM Backup Upscale Rod Block			W in %			
Parameter	Formula	Reference	Requirement in Vdc		Req't, %RTP	
			0	55	0	55
Setpoint	0.66(W-ΔW)+ 76	Ref# Att.3	5.605	8.509	70.1	106.4

5.5.4

RBM Clamp			
Parameter	Formula	Reference	Requirement in Vdc
NTSP	116 %RTP	Ref # 3.9.8	9.280 Vdc
AV	119 %RTP	Ref # 3.9.8	9.520 Vdc

5.6 RBM FLOW BIASED SETPOINTS: TWO (2) LOOP RECIRC FLOW

5.6.1

RBM Transfer Setpoint			W in %	
Parameter	Formula	Reference	Requirement in Vdc	Req't, %RTP
			50	50
Intermediate Transfer	0.66(W-ΔW)+ 47	Ref# Att.3	6.4	80.0
Normal Transfer	0.66(W-ΔW)+ 55	Ref# Att.3	7.04	88.0

5.6.2

RBM Upscale Rod Block			W in %	
Parameter	Formula	Reference	Requirement in Vdc	Req't, %RTP
			50	50
(Normal) NTSP	0.66(W-ΔW)+ 65	Ref# 3.9.8	7.840	98.0
(Normal) AV	0.66(W-ΔW)+ 68	Ref# 3.9.8	8.080	101.0
(Low) Setpoint	0.66(W-ΔW)+ 49	Ref# Att.2	6.560	82.0
(Intermediate) Setpoint	0.66(W-ΔW)+ 57	Ref# Att.2	7.200	90.0

5.6.3

RBM Backup Upscale Rod Block			W in %			
Parameter	Formula	Reference	Requirement in Vdc		Req't, %RTP	
			0	55	0	55
Setpoint	0.66(W-ΔW)+ 76	Ref# Att.3	6.080	8.984	76.0	112.3

5.6.4

RBM Clamp			
Parameter	Formula	Reference	Requirement in Vdc
NTSP	116 %RTP	Ref # 3.9.8	9.280 Vdc
AV	119 %RTP	Ref # 3.9.8	9.520 Vdc

6.1 APRM NON-FLOW BIASED AS-FOUND AND AS-LEFT

For Non-Flow Biased Card, the Tolerance for As Left is +/- 0.2 Vdc and As Found is +/- 0.283 Vdc. (Calc Body Section 8.9.9)

6.1.1 APRM Fixed Neutron Flux - Upscale

	- Tol	Setpoint
AL	9.240	9.440
AF	9.157	9.440

6.1.2 APRM Neutron Flux - Upscale, Setdown

	- Tol	Setpoint
AL	0.920	1.120
AF	0.837	1.120

9IR1

6.1.3 APRM Neutron Flux - Upscale, Startup

	- Tol	Setpoint
AL	0.680	0.880
AF	0.597	0.880

9IR1

6.1.4 APRM Downscale

	Setpoint	+ Tol
AL	0.320	0.520
AF	0.320	0.603

6.1.5 APRM High Flow Clamped

	- Tol	Setpoint
AL	8.980	9.080
AF	8.939	9.080

Even though this function is non-flow biased, the signal originates in flow biased trip reference card. Tolerance of As Left +/- 0.1 Vdc and As Found +/- 0.141 Vdc will be used.

6.1.6 APRM Upscale Alarm Clamp

	- Tol	Setpoint
AL	8.540	8.640
AF	8.499	8.640

Even though this function is non-flow biased, the signal originates in flow biased trip reference card. Tolerance of As Left +/- 0.1 Vdc and As Found +/- 0.141 Vdc will be used.

6.2 APRM FLOW BIASED AS-FOUND AND AS-LEFT: SINGLE LOOP RECIRC FLOW

For Flow Biased Card, the Tolerance for As Left is +/- 0.1 Vdc and As Found is +/- 0.141 Vdc. (Calc Body Section 8.9.10)

6.2.1 APRM Neutron Flux Upscale Rod Block, Single Loop

	W=10%			W = 60%		
	- Tol	Setpoint	+ Tol	- Tol	Setpoint	+ Tol
AL	4.186	4.286	4.386	6.466	6.566	6.666
AF	4.145	4.286	4.427	6.425	6.566	6.707

6.2.2 APRM Simulated Thermal Power Upscale Scram, Single Loop

	W = 10%			W = 60%		
	- Tol	Setpoint	+ Tol	- Tol	Setpoint	+ Tol
AL	4.586	4.686	4.786	6.866	6.966	7.066
AF	4.545	4.686	4.827	6.825	6.966	7.107

6.3 APRM FLOW BIASED AS-FOUND AND AS-LEFT: TWO LOOP RECIRC FLOW

For Flow Biased Card, the Tolerance for As Left is +/- 0.1 Vdc and As Found is +/- 0.141 Vdc. (Calc Body Section 8.9.10)

6.3.1 APRM Neutron Flux Upscale Rod Block, Two Loop

	W = 0%			W = 70%		
	- Tol	Setpoint	+ Tol	- Tol	Setpoint	+ Tol
AL	4.140	4.240	4.340	7.332	7.432	7.532
AF	4.099	4.240	4.381	7.291	7.432	7.573

6.3.2 APRM Simulated Thermal Power Upscale Scram, Two Loop

	W = 30%			W = 70%		
	- Tol	Setpoint	+ Tol	- Tol	Setpoint	+ Tol
AL	5.908	6.008	6.108	7.732	7.832	7.932
AF	5.867	6.008	6.149	7.691	7.832	7.973

6.4 RBM NON-FLOW BIASED AS-FOUND AND AS-LEFT

For Non-Flow Biased Card, the Tolerance for As Left is +/- 0.2 Vdc and As Found is +/- 0.283 Vdc. (Calc Body Section 8.9.9) with the exception of RBM Low Power Bypass which has As Found +/- 0.223 VDC (Calc Body Section 8.4.2). Reset deadband is +0.246 VDC (Calc Body Section 8.4.2).

6.4.1 RBM Down Scale

	Setpoint	+ Tol
AL	0.400	0.600
AF	0.400	0.683

6.4.2 RBM LPRM Auto Bypass Setpoint

	- Tol	Setpoint	+ Tol
AL	0.040	0.240	0.440
AF	-0.043	0.240	0.523

6.4.3 LPRM Level Card Upscale Trip Setpoint

	- Tol	Setpoint	+ Tol
AL	7.800	8.000	8.200
AF	7.717	8.000	8.283

6.4.4 LPRM Level Card Downscale Trip Setpoint

	- Tol	Setpoint	+ Tol
AL	0.120	0.320	0.520
AF	0.037	0.320	0.603

6.4.5 RBM Low Power Bypass

	- Tol	Setpoint
AL	1.700	1.900
AF	1.677	1.900

RBM Low Power Bypass Reset

	- Tol	Setpoint	+ Tol
AL	1.946	2.146	2.346
AF	1.923	2.146	2.369

6.5 RBM FLOW BIASED AS-FOUND AND AS-LEFT: SINGLE LOOP RECIRC FLOW

For Flow Biased Card, the Tolerance for As Left is +/- 0.1 Vdc and As Found is +/- 0.141 Vdc. (Calc Body Section 8.9.10)

6.5.1 RBM Transfer Setpoint

	Intermediate Transfer W = 50%			Normal Transfer W = 50%		
	- Tol	Setpoint	+ Tol	- Tol	Setpoint	+ Tol
AL	5.825	5.925	6.025	6.465	6.565	6.665
AF	5.784	5.925	6.066	6.424	6.565	6.706

6.5.2 RBM Upscale Rod Block

	Normal, W = 50%			Low, W = 50%			Intermediate, W = 50%		
	- Tol	Setpoint	+ Tol	- Tol	Setpoint	+ Tol	- Tol	Setpoint	+ Tol
AL	7.265	7.365	7.465	5.985	6.085	6.185	6.625	6.725	6.825
AF	7.224	7.365	7.506	5.944	6.085	6.226	6.584	6.725	6.866

6.5.3 RBM Backup Upscale Rod Block

	W = 0%			W = 55%		
	- Tol	Setpoint	+ Tol	- Tol	Setpoint	+ Tol
AL	5.505	5.605	5.705	8.409	8.509	8.609
AF	5.464	5.605	5.746	8.368	8.509	8.650

6.5.4 RBM Clamp

	- Tol	Setpoint	+ Tol
AL	9.180	9.280	9.380
AF	9.139	9.280	9.421

6.6 RBM FLOW BIASED AS-FOUND AND AS-LEFT: TWO (2) LOOP RECIRC FLOW

For Flow Biased Card, the Tolerance for As Left is +/- 0.1 Vdc and As Found is +/- 0.141 Vdc. (Calc Body Section 8.9.10)

6.6.1 RBM Transfer Setpoint

	Intermediate Transfer W = 50%			Normal Transfer W = 50%		
	- Tol	Setpoint	+ Tol	- Tol	Setpoint	+ Tol
AL	6.300	6.400	6.500	6.940	7.040	7.140
AF	6.259	6.400	6.541	6.899	7.040	7.181

6.6.2 RBM Upscale Rod Block

	Normal, W = 50%			Low, W = 50%			Intermediate, W = 50%		
	- Tol	Setpoint	+ Tol	- Tol	Setpoint	+ Tol	- Tol	Setpoint	+ Tol
AL	7.740	7.840	7.940	6.460	6.560	6.660	7.100	7.200	7.300
AF	7.699	7.840	7.981	6.419	6.560	6.701	7.059	7.200	7.341

6.6.3 RBM Backup Upscale Rod Block

	W = 0%			W = 55%		
	- Tol	Setpoint	+ Tol	- Tol	Setpoint	+ Tol
AL	5.980	6.080	6.180	8.884	8.984	9.084
AF	5.939	6.080	6.221	8.843	8.984	9.125

6.6.4 RBM Clamp

	- Tol	Setpoint	+ Tol
AL	9.180	9.280	9.380
AF	9.139	9.280	9.421