

**ENCLOSURE 1**

**TENNESSEE VALLEY AUTHORITY  
SEQUOYAH NUCLEAR PLANT**

**STEAM GENERATOR REPORT  
VOLTAGE BASED ALTERNATE REPAIR CRITERIA  
UNIT 2 CYCLE 15  
90-DAY REPORT**

Westinghouse Non-Proprietary Class 3

SG-CDME-08-24  
Revision 0

July 2008

**Condition Monitoring and Operational Assessment:  
GL-95-05 Alternate Repair Criterion End of Cycle 15  
90 Day Report  
Sequoyah Unit 2**

Prepared for the  
Tennessee Valley Authority



**SG-CDME-08-24**  
**Revision 0**

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GL-95-05 Alternate Repair Criterion End of Cycle 15  
90 Day Report  
Sequoyah Unit 2**

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## GLOSSARY OF ACRONYMS

- BOC Beginning of operation cycle. The most recent inspection was completed just prior to BOC-16.
- EOC End of operation cycle. The most recent inspection was completed just after EOC-15. The end of the next cycle is EOC-16.
- NODP Normal operating differential pressure.
- MRPC Motorized rotating pancake coil. Also refers to the +Point™ coil.
- ODSCC Outside diameter stress corrosion cracking.
- POD Probability of detection. This value is set equal to 0.60 for the GL-95-05 predictive analysis for the condition of the steam generators at the end of the next cycle.
- SG Steam generator identifier. Specifically SG 1, SG 2, SG 3 and SG 4.
- TSP Tube support plate. The generic letter 95-05 alternate repair criterion applies to ODSCC in the tubes at the TSPs.

## 1.0 INTRODUCTION

Sequoyah Unit 2 completed its Cycle 15 of operation and subsequent steam generator tube inspection in May 2008. Axial ODSCC has been confirmed within the TSP regions of the steam generators and is a current degradation mechanism at Sequoyah Unit 2. The alternate repair criterion (ARC) defined in NRC Generic Letter 95-05 (Reference 1) is implemented at Sequoyah Unit 2. This report provides a condition monitoring assessment that demonstrates that the GL-95-05 acceptance criteria were satisfied at the end of operational Cycle 15 (EOC-15), and an operational assessment that demonstrates that the GL 95-05 acceptance criteria will continue to be satisfied throughout operational Cycle 16. A Sequoyah-2 specific voltage growth rate was used in the EOC-16 prediction.

The operation cycle just completed, Cycle 15, was 487.1 Effective Full Power Days (EFPD). The next cycle, Cycle 16 is estimated to be 491 EFPD (Reference 2).



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## 2.0 SUMMARY AND CONCLUSIONS

Bobbin voltage indications of ODSCC at the tube support plates were detected and measured in all four steam generators. Based on this voltage distribution, using the methodology of Reference 1 and Reference 3, a Condition Monitoring evaluation including the computation of the probability of tube burst (POB) and the amount of leakage predicted for steam line break conditions at EOC-15 was performed. The acceptance criteria on POB and leakage are satisfied with significant margin.

The change in voltage from the previous inspection was determined by historical review for each indication detected. The apparent voltage growth rate during Cycle 15 was based on the historic review of 3191 DSI indications identified during the Sequoyah Unit 2 EOC-15 inspection that were reportable in the last inspection. An operational assessment prediction of the POB and leakage at steam line break conditions at EOC-16 was performed using a site specific bounding growth rate. The results indicate that the acceptance criteria on POB and leakage at EOC-16 will be satisfied with acceptable margin. Therefore the Reference 1 acceptance criteria will be satisfied throughout Cycle 16.

### 3.0 EOC-15 INSPECTION RESULTS

#### 3.1 VOLTAGE DISTRIBUTIONS AT EOC-15

Summaries of eddy current signal voltage distributions at the drilled support plates, for each steam generator, are shown in Table 3-1 through Table 3-4. Also shown are the number of indications in each voltage range detected at EOC-15 and the number of indications removed from service due to tube repairs for any reason. The number of indications that remain in service for Cycle 16 is the difference between the number of indications detected and the number of indications removed from service. No tubes were unplugged with the intent to return them to service after inspection.

Appendix A contains a listing of all EOC-15 DSI indications and their repair status. All DSI indications with an EOC-15 voltage greater than or equal to 2 volts were subject to +Point™ inspections, in accordance with Reference 1 requirements for 7/8-inch diameter tubing. Plugging was used to repair indications, greater than or equal to 2 volts, confirmed as being present by the +Point™ inspection.

The summary of all four-steam generators shows the following:

- A total of 3223 TSP regions were identified as having ODSCC bobbin signal indications (DSIs) during the inspection. This includes ten TSP regions identified as having ODSCC by MRPC (but without a bobbin DSI) whose DSI voltage was imputed by statistical means.
- As noted in Reference 4, Sequoyah-2 does not have intersections that are excluded from the voltage-based repair criteria (Section 1.b.1 of Reference 1). None of these 3223 indications were associated with a dent signal greater than 5 volts, copper deposits, or mixed residuals of sufficient magnitude to cause a 1.0 volt ODSCC indication to be missed or misread.
- Of the 3223 TSP regions, 7 had DSI indications above 2 volts.
- All indication with voltages greater than or equal to 2 volts, were subjected to an inspection with a +Point™ probe. Indications that confirmed during the +Point™ inspection were removed from service by plugging.
- All of the 7 TSP regions with indications above 2 volts were confirmed by MRPC examination and were subsequently repaired by plugging. The tubes associated with these TSP regions were plugged because of MRPC-confirmed ODSCC at that particular support plate.
- A total of 68 of the 3223 TSP regions were removed from service. Some of these were removed specifically for MRPC-confirmed ODSCC at a support plate within the same tube, but others were removed for reasons unrelated to ODSCC at a support plate.

Figure 3-1 through Figure 3-12 illustrate the voltage distribution in each steam generator. Figure 3-1 through Figure 3-4 show the detected voltage distribution compared to the predicted distribution which was developed in the previous 90-day report, Reference 5. Figure 3-5 through Figure 3-8 show the distribution of repaired indications, and Figure 3-9 through Figure 3-12 show the distribution of indications that remain in service for the next operating cycle.

As mentioned previously, the data includes ten imputed voltages; these were cases where a bobbin indication was not identified, but a +Point™ indication was. The bobbin voltage, in these cases, was imputed by a comparison of bobbin and +Point™ voltages in intersections where a dent was not present. This comparison is provided in Figure 3-13. The upper 95% confidence bound on the mean was used to impute bobbin voltages from SAI +Point voltages. There were three cases where there were two SAIs in the same TSP region; in these cases a single imputed bobbin voltage was assigned to the TSP region by first using Figure 3-13 to determine the corresponding bobbin signal attributable to each SAI, then taking the square-root-of-the-sum-of-the-squares of all the SAIs in a single TSP. The 10 cases included four from SG 1, two from SG 2 and four from SG 3. All had imputed bobbin voltages between 1.02 V and 1.68 V.

Table 3-1: Inspection Results for SG 1 EOC-15

Voltage Bin	Number of Indications	MRPC Confirmed	MRPC Tested But Not Confirmed	Not MRPC Tested	Plugged	Returned to Service	In-Service, MRPC Confirmed or Not Tested
0.2	18	0	2	16	0	18	16
0.3	57	0	2	55	0	57	55
0.4	68	3	1	64	0	68	67
0.5	65	4	2	59	1	64	62
0.6	61	1	2	58	0	61	59
0.7	66	2	1	63	1	65	64
0.8	52	3	1	48	0	52	51
0.9	39	1	0	38	1	38	38
1	35	2	1	32	0	35	34
1.1	18	10	8	0	1	17	9
1.2	22	18	4	0	4	18	14
1.3	17	12	5	0	1	16	11
1.4	6	4	2	0	0	6	4
1.5	10	7	3	0	0	10	7
1.6	4	4	0	0	1	3	3
1.7	2	2	0	0	0	2	2
Total	540	73	34	433	10	530	496

Average voltage = 0.652 volts

Table 3-2: Inspection Results for SG 2 EOC-15

Voltage Bin	Number of Indications	MRPC Confirmed	MRPC Tested But Not Confirmed	Not MRPC Tested	Plugged	Returned to Service	In-Service, MRPC Confirmed or Not Tested
0.1	3	0	0	3	0	3	3
0.2	21	0	1	20	0	21	20
0.3	50	0	3	47	0	50	47
0.4	78	2	2	74	2	76	74
0.5	82	5	5	72	0	82	77
0.6	82	3	2	77	2	80	78
0.7	73	5	0	68	2	71	71
0.8	55	5	0	50	0	55	55
0.9	40	6	1	33	0	40	39
1	35	4	1	30	3	32	31
1.1	22	18	4	0	0	22	18
1.2	21	18	3	0	3	18	15
1.3	12	10	2	0	0	12	10
1.4	11	10	1	0	0	11	10
1.5	6	6	0	0	0	6	6
1.6	3	3	0	0	0	3	3
1.7	2	2	0	0	0	2	2
1.8	4	2	2	0	0	4	2
1.9	2	2	0	0	0	2	2
Total	602	101	27	474	12	590	563

Average voltage = 0.646 volts

Table 3-3: Inspection Results for SG 3 EOC-15

Voltage Bin	Number of Indications	MRPC Confirmed	MRPC Tested But Not Confirmed	Not MRPC Tested	Plugged	Returned to Service	In-Service, MRPC Confirmed or Not Tested
0.2	8	0	1	7	0	8	7
0.3	44	1	3	40	0	44	41
0.4	73	0	0	73	5	68	68
0.5	75	3	1	71	0	75	74
0.6	78	5	4	69	3	75	71
0.7	87	3	2	82	1	86	84
0.8	75	1	0	74	2	73	73
0.9	59	0	1	58	0	59	58
1	59	8	3	48	1	58	55
1.1	45	36	9	0	4	41	32
1.2	29	25	4	0	0	29	25
1.3	29	24	5	0	0	29	24
1.4	14	11	3	0	0	14	11
1.5	24	22	2	0	1	23	21
1.6	12	12	0	0	2	10	10
1.7	5	3	2	0	1	4	2
1.8	4	4	0	0	0	4	4
1.9	3	3	0	0	1	2	2
2	3	2	1	0	0	3	2
2.1	2	2	0	0	2	0	0
2.5	1	1	0	0	1	0	0
Total	729	166	41	522	24	705	664

Average voltage = 0.766 volts

Table 3-4: Inspection Results for SG 4 EOC-15

Voltage Bin	Number of Indications	MRPC Confirmed	MRPC Tested But Not Confirmed	Not MRPC Tested	Plugged	Returned to Service	In-Service, MRPC Confirmed or Not Tested
0.2	20	0	0	20	1	19	19
0.3	110	0	3	107	0	110	107
0.4	150	3	4	143	0	150	146
0.5	199	6	2	191	3	196	194
0.6	207	3	3	201	3	204	201
0.7	156	2	3	151	1	155	152
0.8	138	3	2	133	2	136	134
0.9	112	3	0	109	0	112	112
1	70	4	1	65	0	70	69
1.1	62	60	2	0	3	59	57
1.2	40	38	2	0	1	39	37
1.3	27	26	1	0	2	25	24
1.4	17	15	2	0	0	17	15
1.5	18	18	0	0	0	18	18
1.6	12	12	0	0	1	11	11
1.7	3	3	0	0	0	3	3
1.8	2	2	0	0	0	2	2
1.9	3	3	0	0	0	3	3
2	2	2	0	0	1	1	1
2.1	1	1	0	0	1	0	0
2.2	1	1	0	0	1	0	0
2.6	1	1	0	0	1	0	0
2.8	1	1	0	0	1	0	0
Total	1352	207	25	1120	22	1330	1305

Average voltage = 0.665 volts

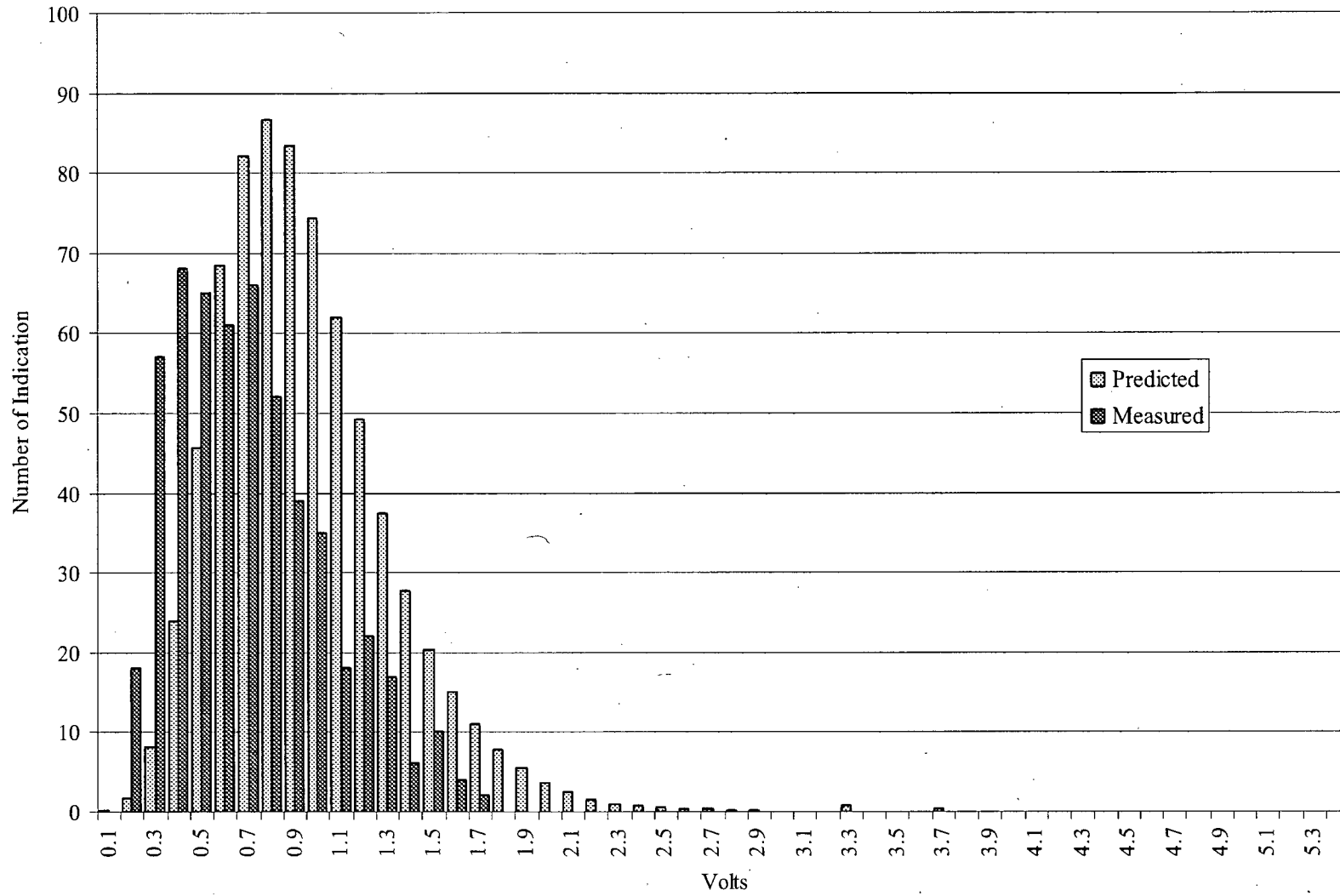


Figure 3-1: Sequoyah-2 EOC-15 Voltage Distribution, SG 1



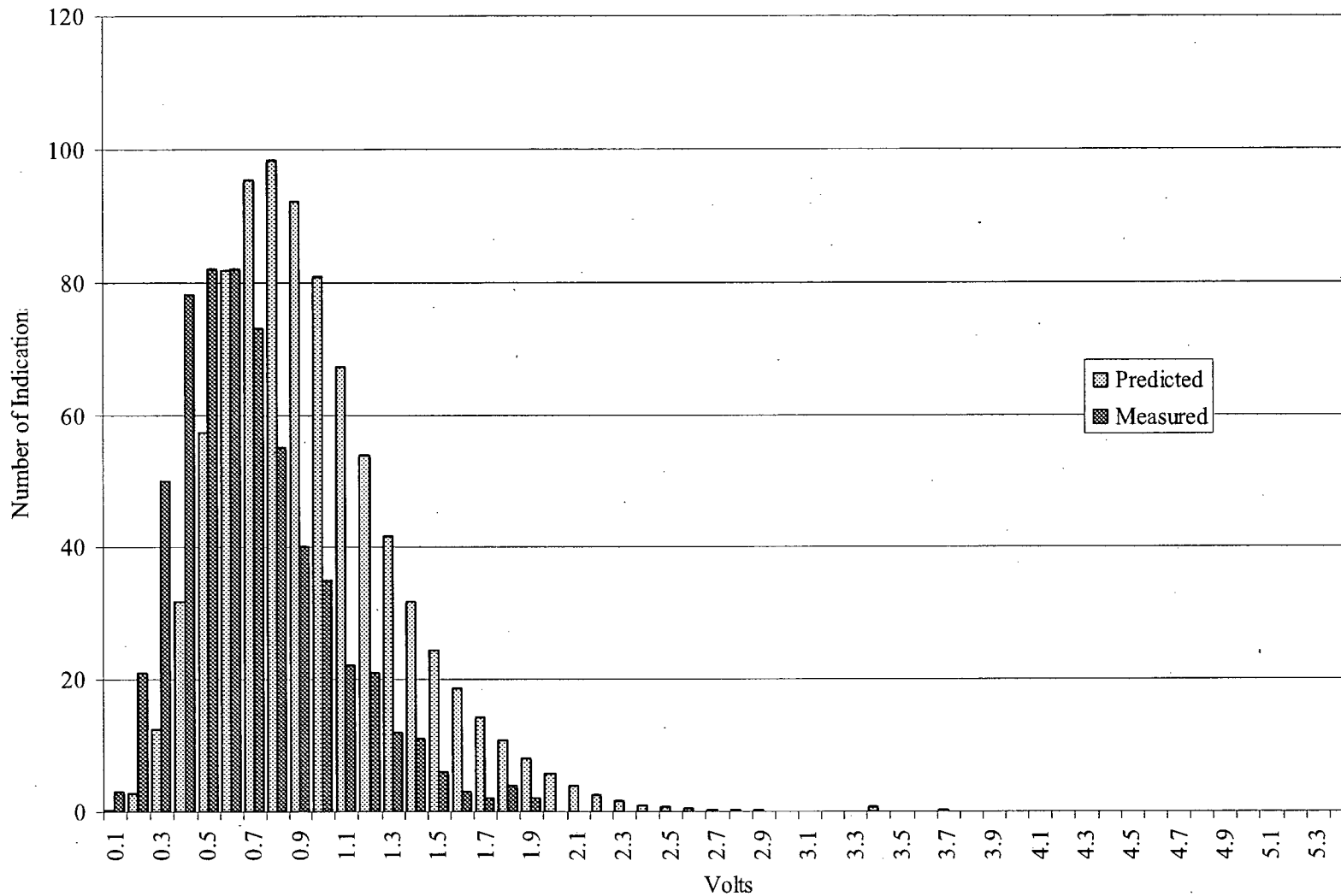


Figure 3-2: Sequoyah-2 EOC-15 Voltage Distribution, SG 2

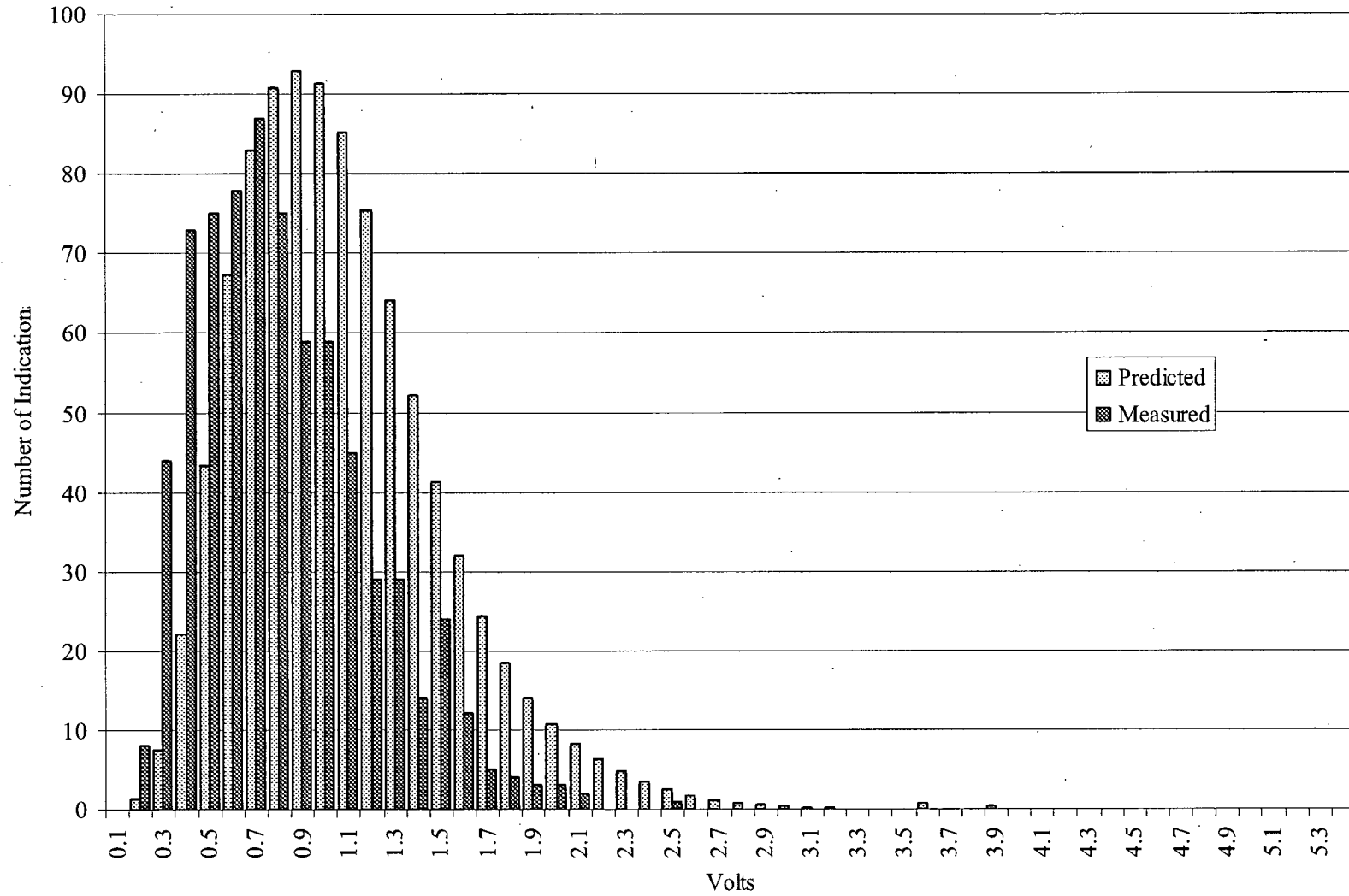


Figure 3-3: Sequoyah-2 EOC-15 Voltage Distribution, SG 3

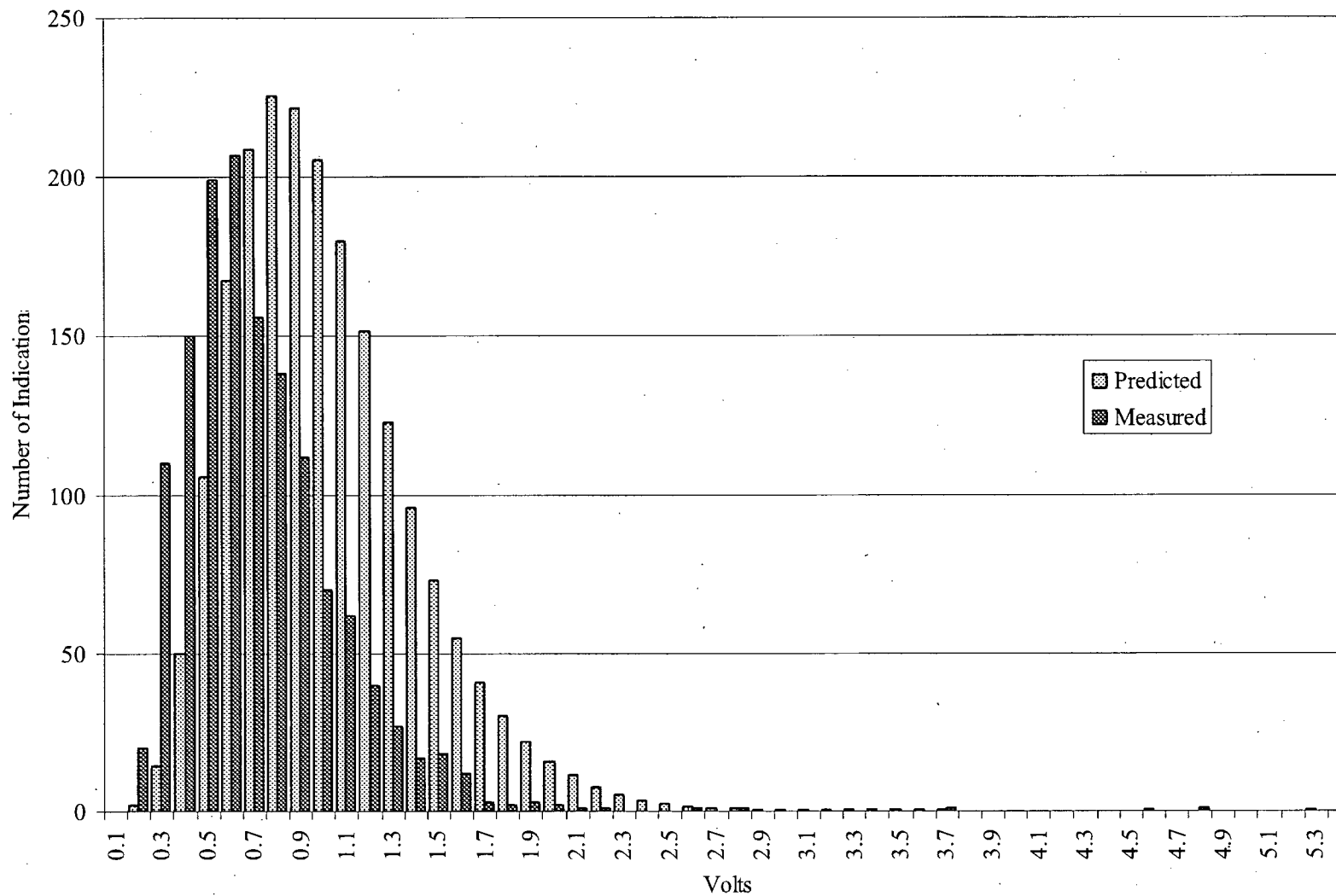


Figure 3-4: Sequoyah-2 EOC-15 Voltage Distribution, SG 4

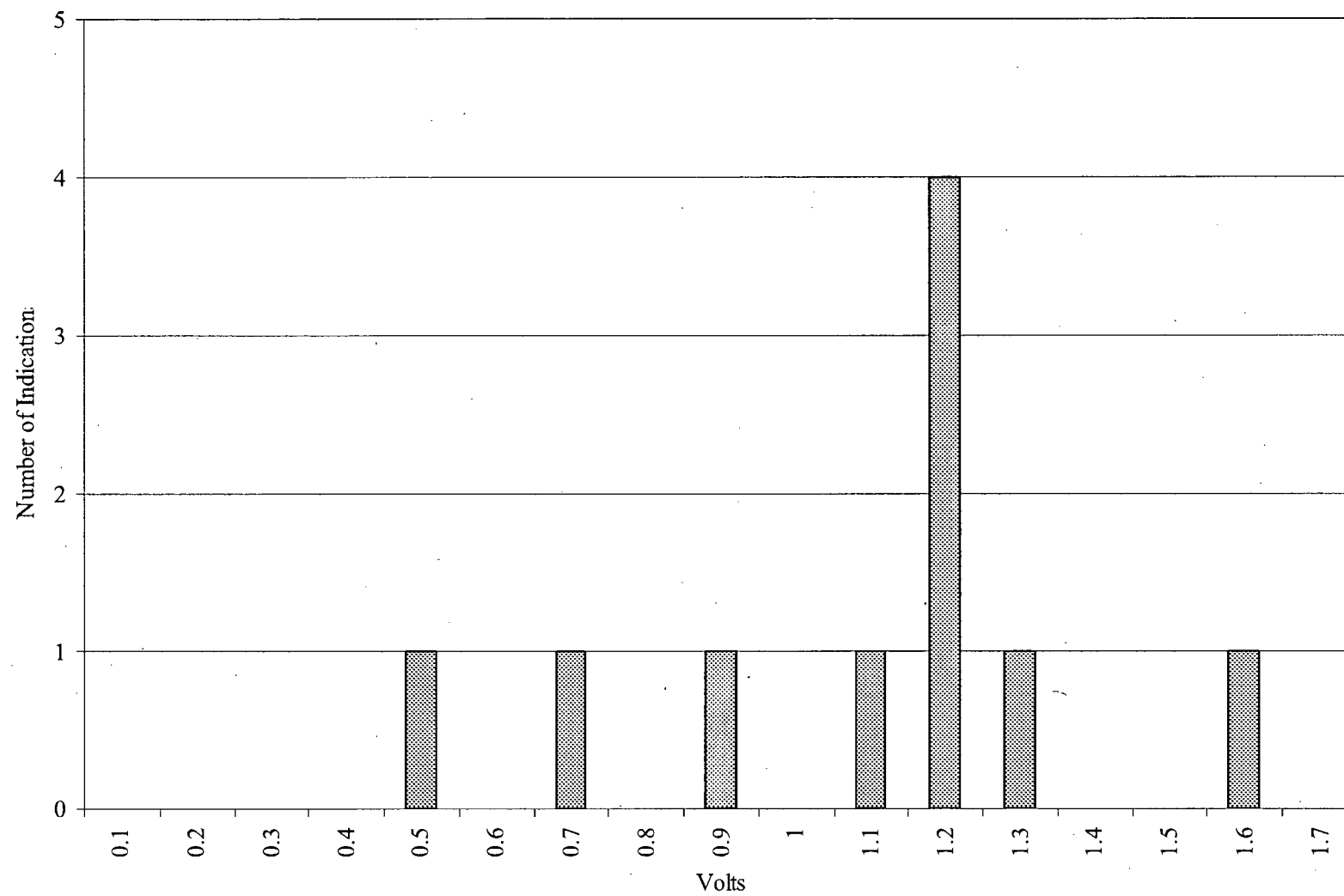


Figure 3-5: Sequoyah-2 EOC-15 Repaired Indications, SG 1

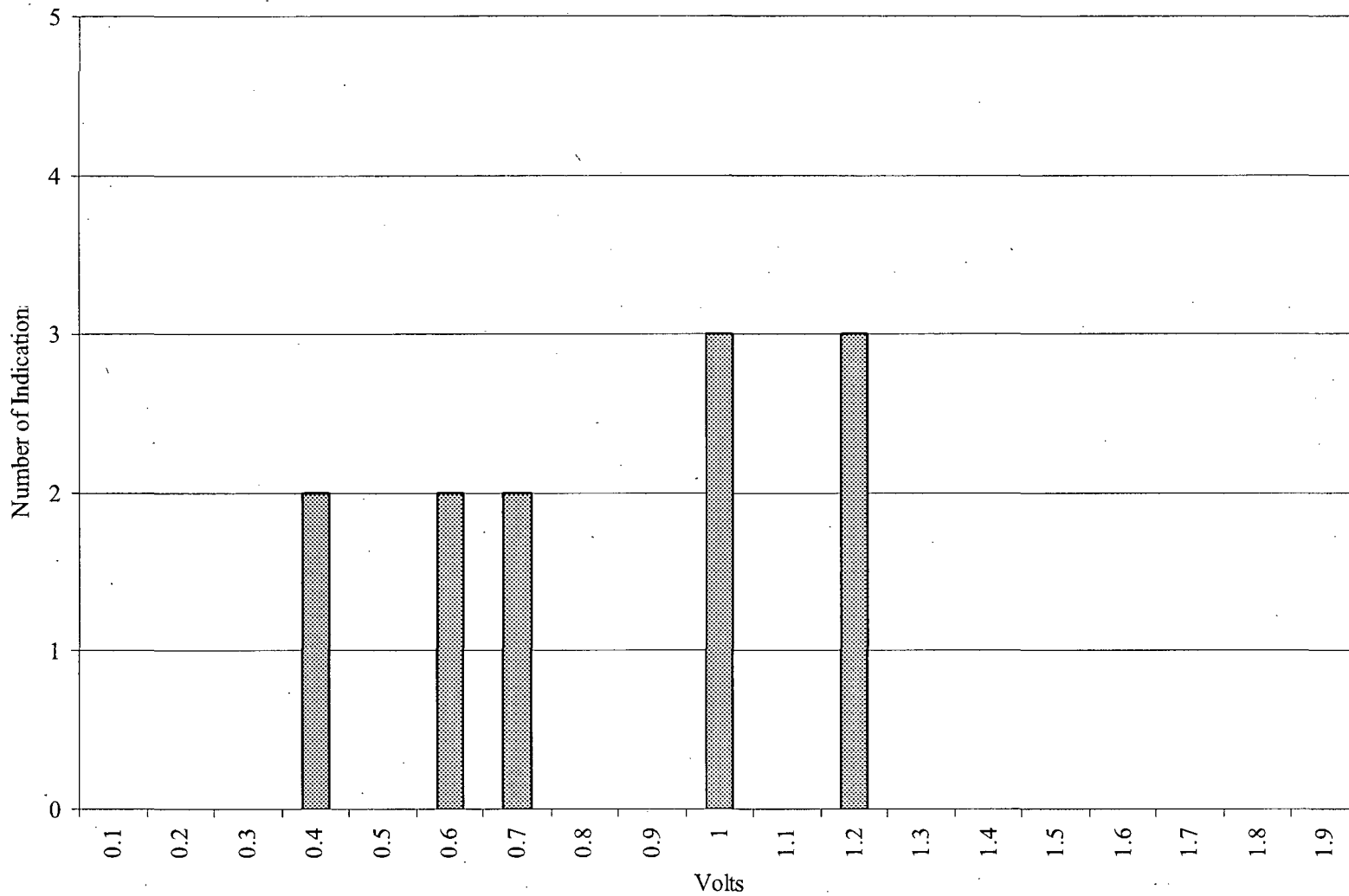


Figure 3-6: Sequoyah-2 EOC-15 Repaired Indications, SG 2

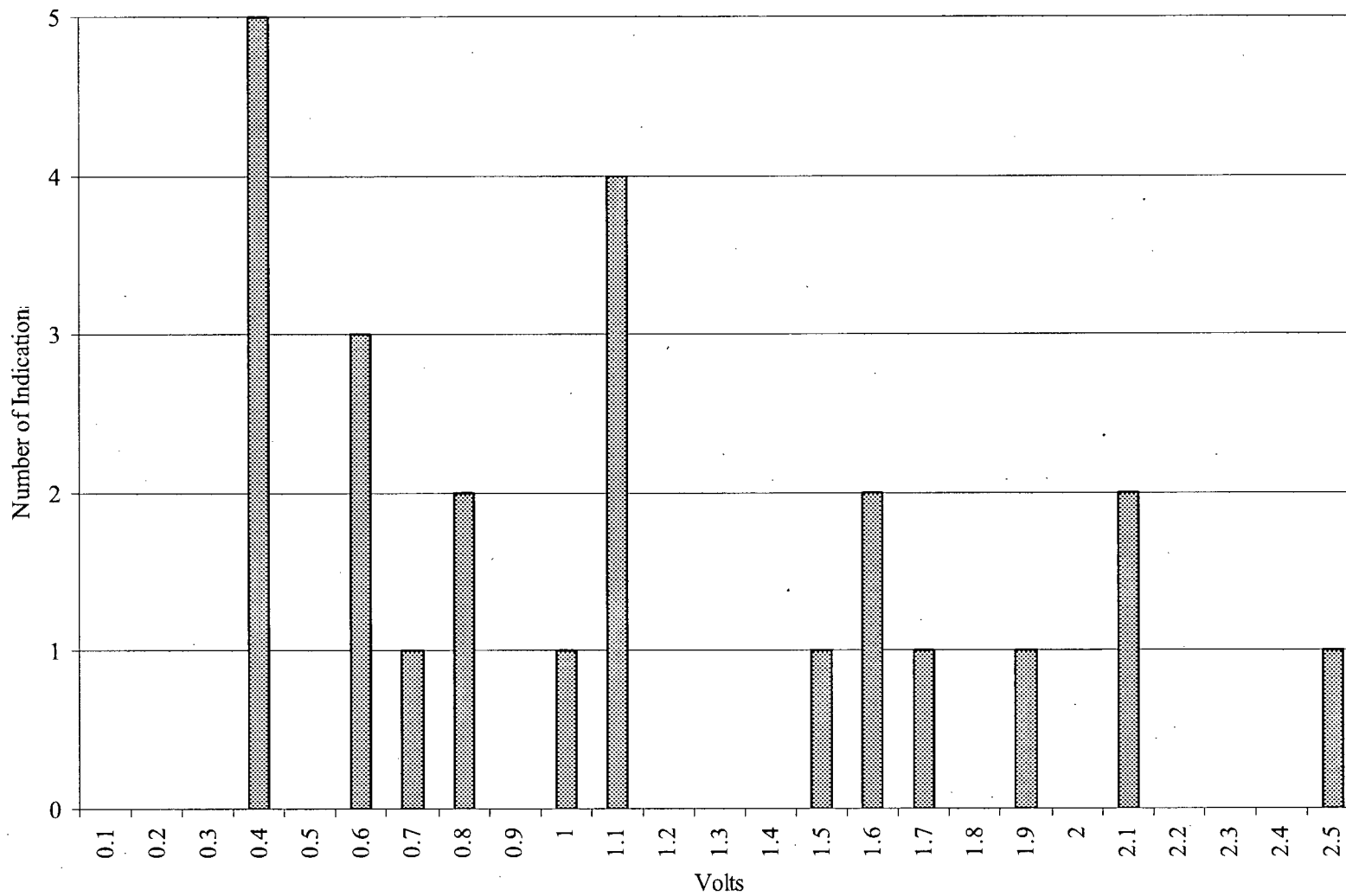


Figure 3-7: Sequoyah-2 EOC-15 Repaired Indications, SG 3

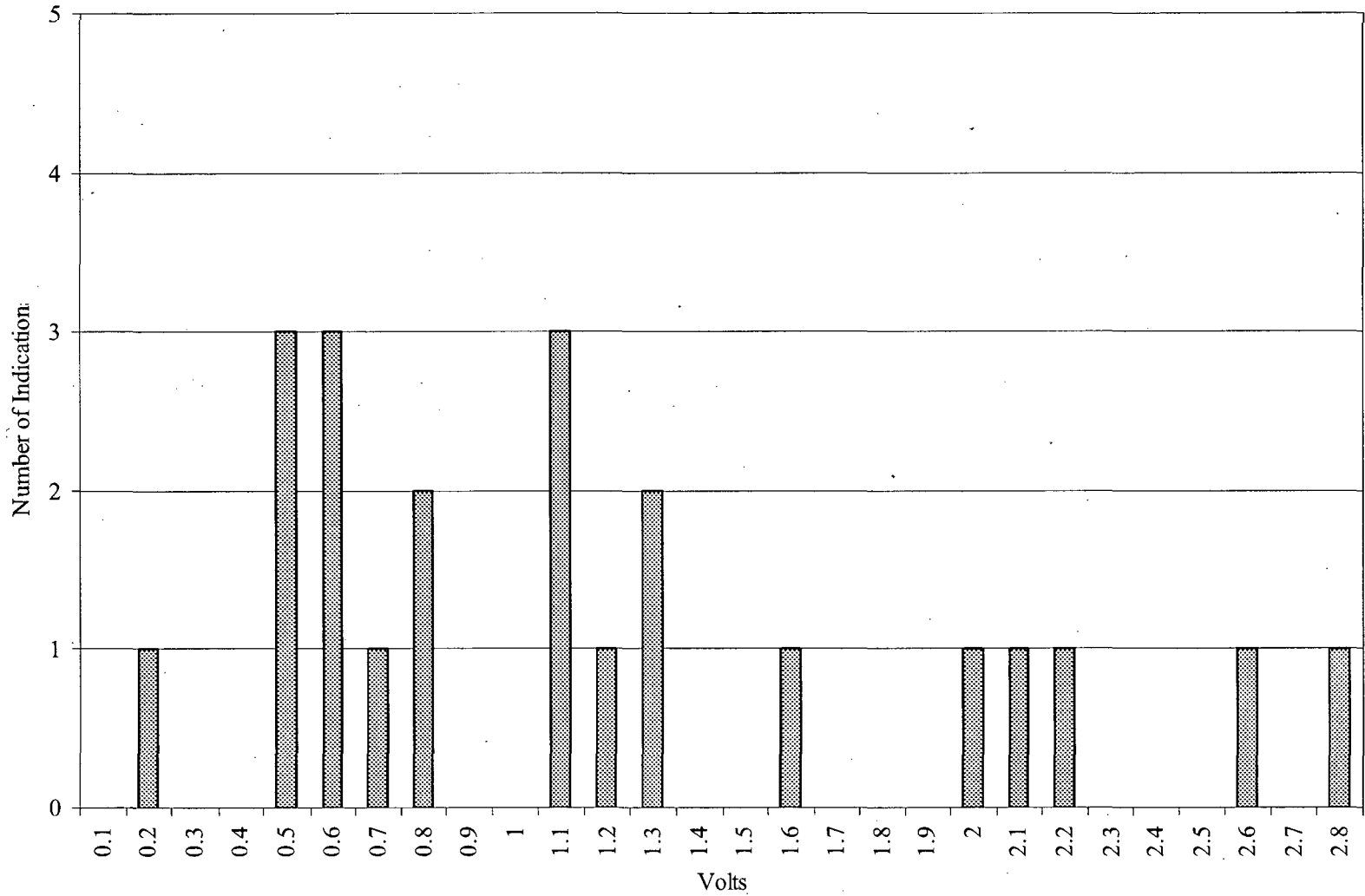


Figure 3-8: Sequoyah-2 EOC-15 Repaired Indications, SG 4

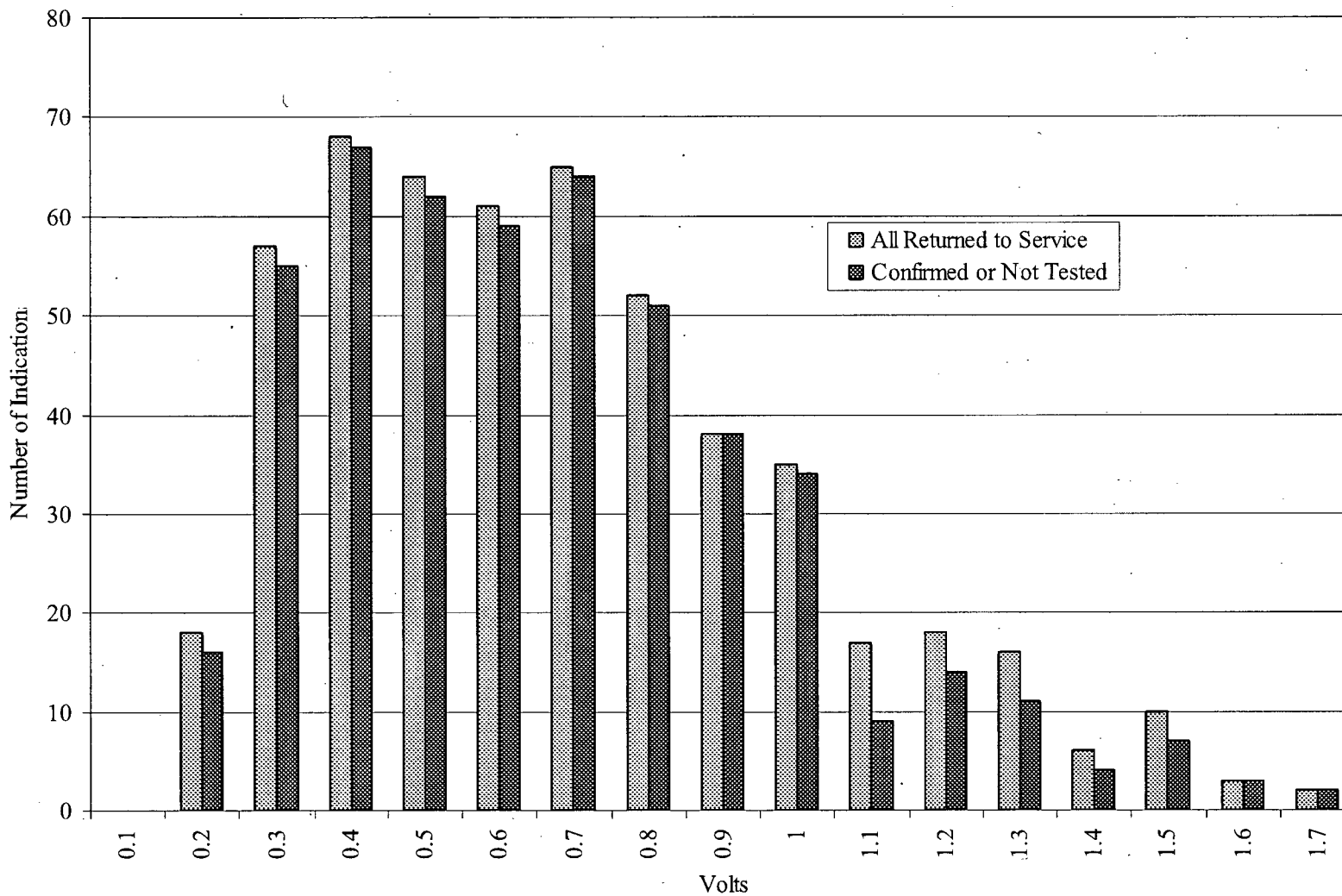


Figure 3-9: Sequoyah-2 EOC-15 Indications Returned to Service, SG 1



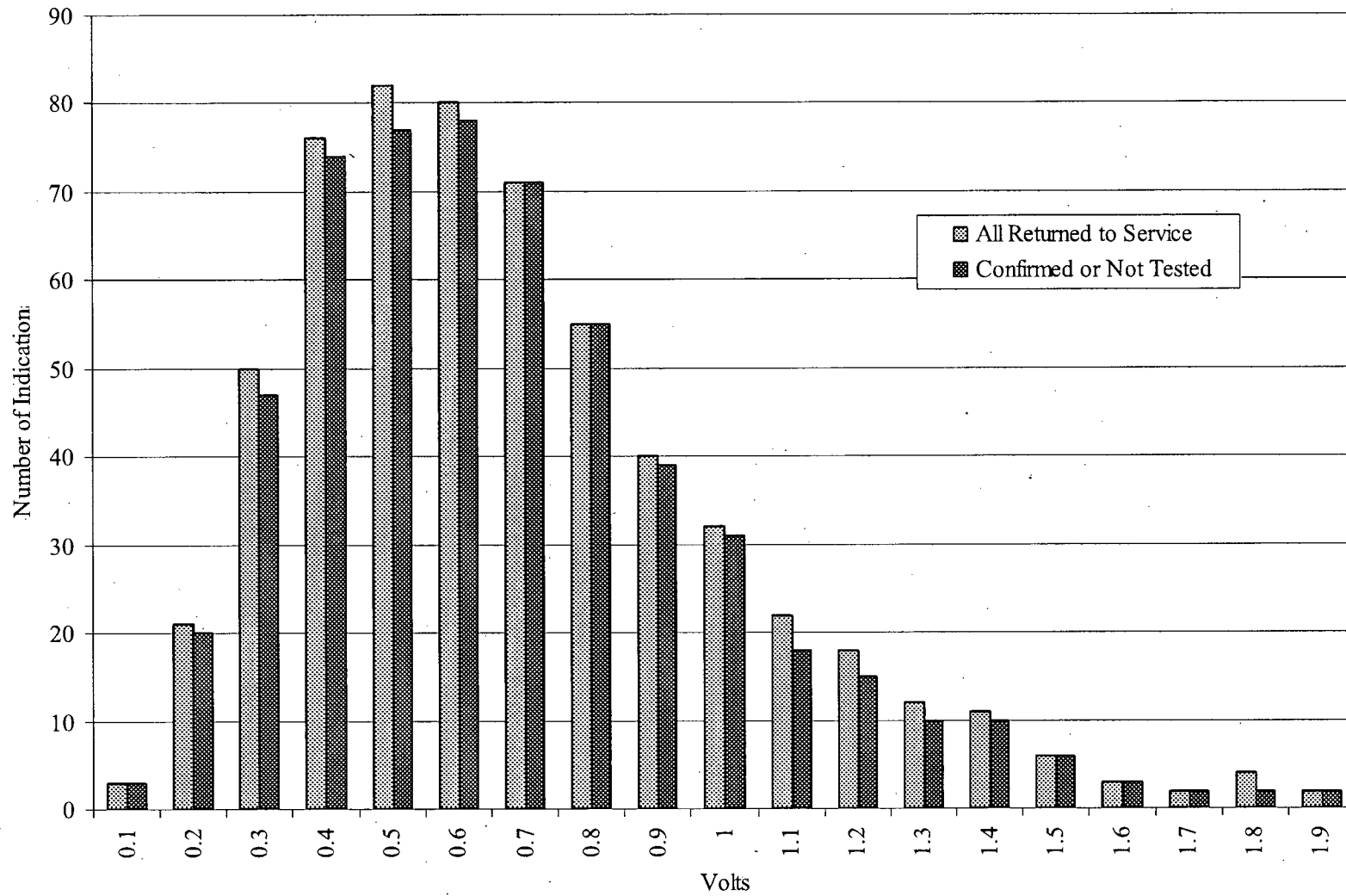


Figure 3-10: Sequoyah-2 EOC-15 Indications Returned to Service, SG 2

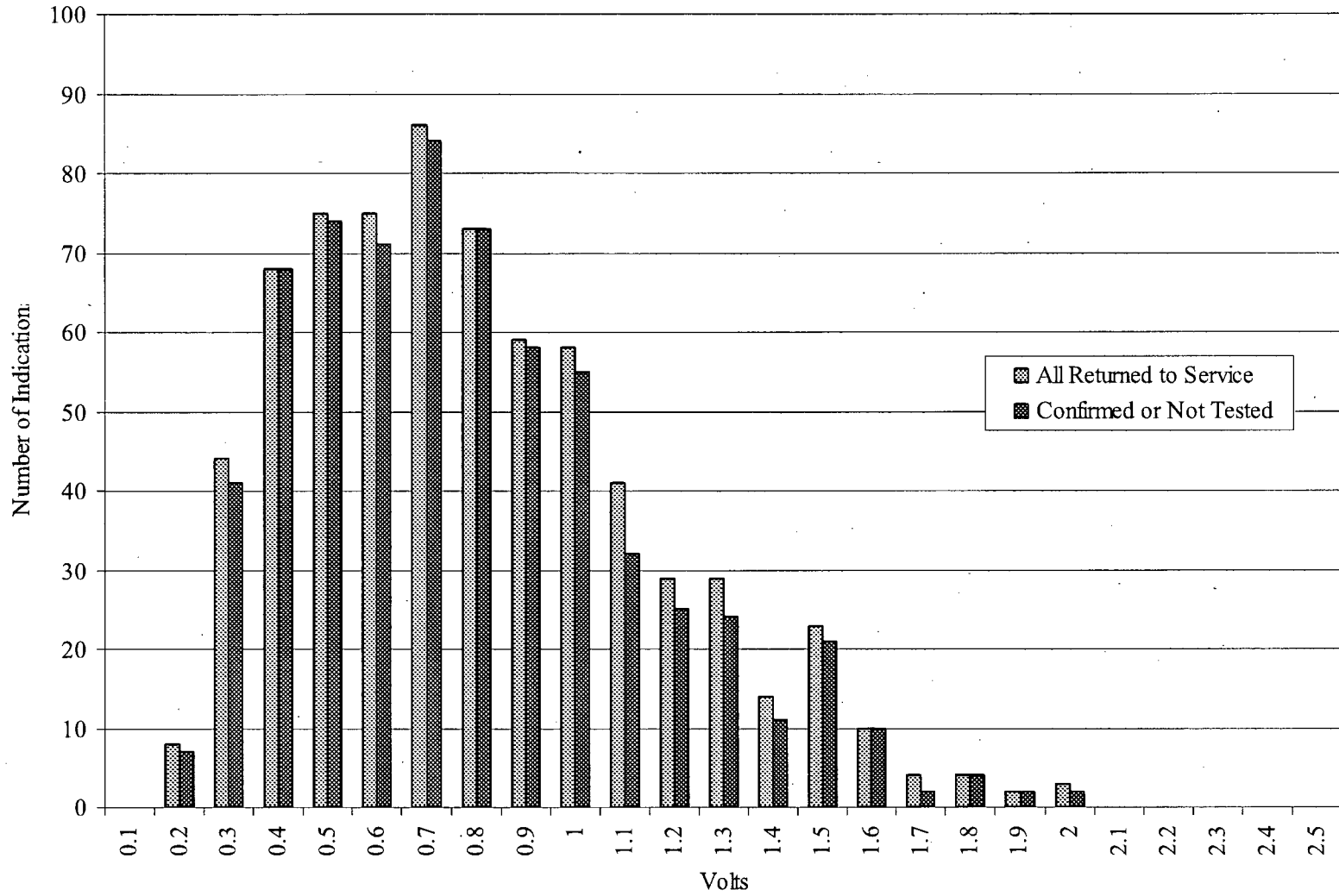


Figure 3-11: Sequoyah-2 EOC-15 Indications Returned to Service, SG 3

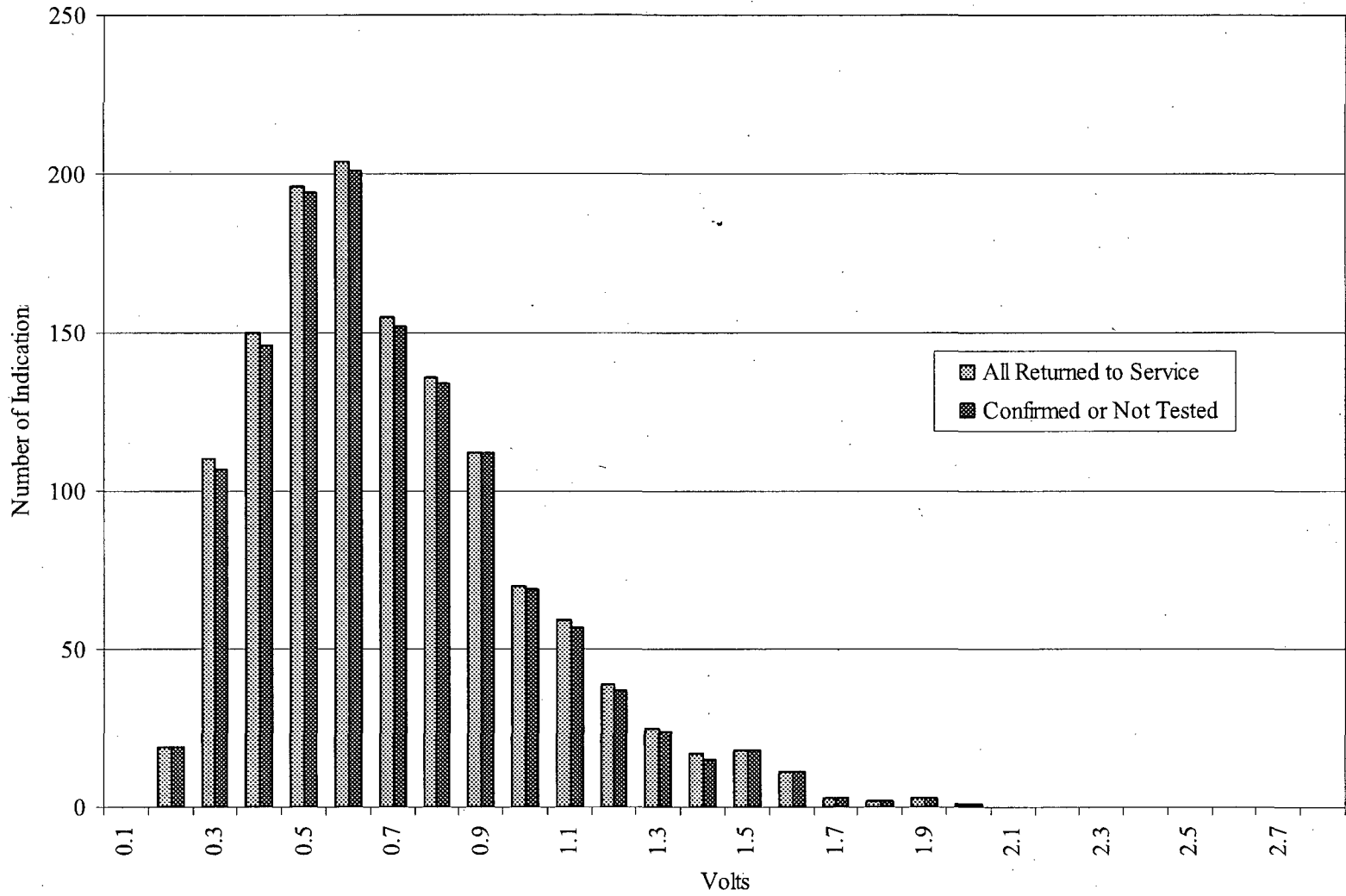


Figure 3-12: Sequoyah-2 EOC-15 Indications Returned to Service, SG 4

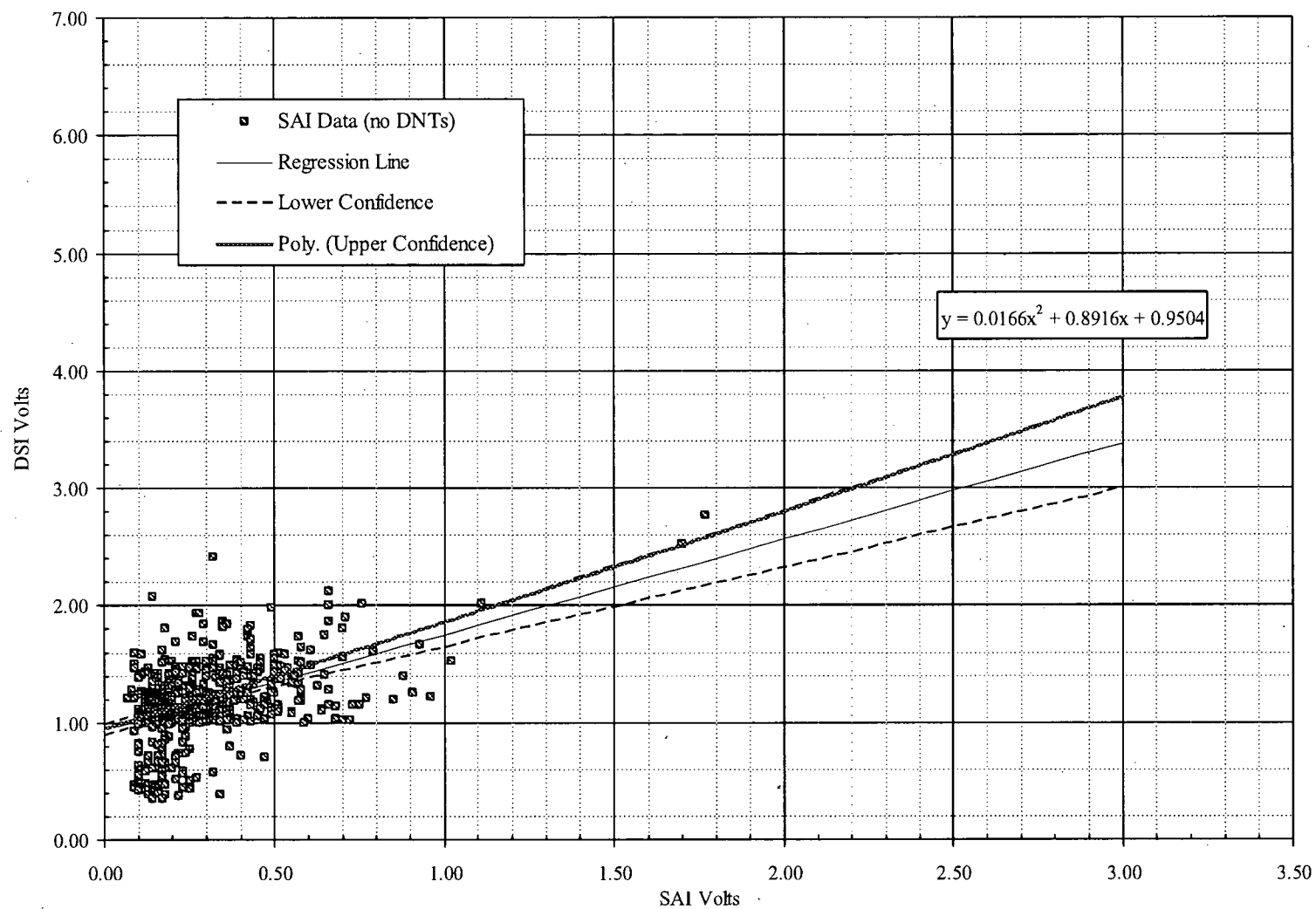


Figure 3-13: Imputed Bobbin Voltage Basis

## 3.2 VOLTAGE GROWTH RATES FOR CYCLE 15

Voltage growth was determined by the difference between the EOC-15 and EOC-14 voltages for each indication. The EOC-14 voltages were determined by historical reviews of the prior cycle data base and were established using the same techniques as used to analyze the EOC-15 data. The voltage change is for the 487.1 EFPD cycle length of Cycle 15. The voltage at EOC-14 is provided for indications detected at EOC-15 in Appendix A.

The procedure for computing the voltage change and binning the values is described in Reference 3. Negative voltage changes are included in the 0 change bin. Voltage change distributions for each steam generator are included in Table 3-5 through Table 3-8. These tables also include the average percent change in voltage, obtained for each steam generator by dividing the average change in volts (from EOC-14 to EOC-15) by the average EOC-14 voltage; for the average change in volts, negative voltage changes were retained as negative voltages rather than zero volts. An EOC-15 specific growth rate distribution that bound all four steam generators was used as considered; the EOC-15 bounding growth rate distribution is shown in Table 3-9. A comparison of the steam generator specific growth rates and the EOC-15 bounding growth rate is shown in Figure 3-14 and the tail end is shown in detail in Figure 3-15.

Figure 3-16 presents a comparison of the bounding growth rates from Cycle 14 with that from Cycle 15. The data has been normalized to a 1 EFPY basis (365.25 EFPD). Figure 3-17 provides a detailed view of the tail of the curve. From these figures it is shown that the growth rate in Cycle 14 bounds that from Cycle 15, thus the Cycle 14 growth rate is used in the projections.

Figure 3-18 presents a plot of the voltage growth as a function of the BOC voltage for the composite of all steam generators. Figure 3-19 through Figure 3-22 present plots of the voltage growth as a function of the BOC voltage for each of the individual steam generators. A regression line of the data is also included with each.

A condition for considering the use of BOC voltage dependent growth (VDG) in the operational assessment, in combination with POPCD, was suggested in Reference 11 as:

“If the slope is greater than about 0.1, then VDG should be considered in the operational assessment projection for the next cycle..... If the slope is only slightly positive, then engineering judgment should be used to determine if VDG needs to be included in the analyses”

The slope of the voltage growth for all four steam generators is less than the 0.1 criteria, indicating that VDG was not observed in any of the four steam generators at Sequoyah Unit 2. The negative slopes indicate that VDG will not have a significant effect on the operational assessment results, especially considering the conservatism inherent in the use of the traditional  $POD = 0.6$ .

Table 3-5: Voltage Changes from EOC-14 to EOC-15, SG 1

SG 1		
Change in Volts	Number of Indications	Cumulative Distribution
0	247	0.4660
0.1	132	0.7151
0.2	74	0.8547
0.3	41	0.9321
0.4	20	0.9698
0.5	6	0.9811
0.6	3	0.9868
0.7	3	0.9925
0.8	3	0.9981
1.3	1	1
Total	530	

Average change = growth / EOC-14 volts = 4.1%

Table 3-6: Voltage Changes from EOC-14 to EOC-15, SG 2

SG 2		
Change in Volts	Number of Indications	Cumulative Distribution
0	314	0.5277
0.1	150	0.7798
0.2	73	0.9025
0.3	32	0.9563
0.4	15	0.9815
0.5	7	0.9933
0.6	2	0.9966
0.8	1	0.9983
1.0	1	1
Total	595	

Average change = growth / EOC-14 volts = -0.2%

Table 3-7: Voltage Changes from EOC-14 to EOC-15, SG 3

SG 3		
Change in Volts	Number of Indications	Cumulative Distribution
0	349	0.4827
0.1	166	0.7123
0.2	105	0.8575
0.3	44	0.9184
0.4	24	0.9516
0.5	10	0.9654
0.6	9	0.9779
0.7	9	0.9903
0.8	4	0.9959
0.9	1	0.9972
1.0	1	0.9986
1.1	1	1
Total	723	

Average change = growth / EOC-14 volts = 2.4%



Table 3-8: Voltage Changes from EOC-14 to EOC-15, SG 4

SG 4		
Change in Volts	Number of Indications	Cumulative Distribution
0	857	0.6381
0.1	287	0.8518
0.2	115	0.9375
0.3	44	0.9702
0.4	25	0.9888
0.5	8	0.9948
0.6	3	0.9970
0.7	1	0.9978
0.8	1	0.9985
1.3	1	0.9993
1.9	1	1
Total	1343	

Average change = growth / EOC-14 volts = -4.5%

Table 3-9: Voltage Changes from EOC-14 to EOC-15, Bound of All SGs

<b>Change in Volts</b>	<b>Bounding Cumulative Distribution</b>
0	0.4660
0.1	0.7123
0.2	0.8547
0.3	0.9184
0.4	0.9516
0.5	0.9654
0.6	0.9779
0.7	0.9903
0.8	0.9959
0.9	0.9972
1	0.9981
1.1	0.9981
1.3	0.9993
1.9	1

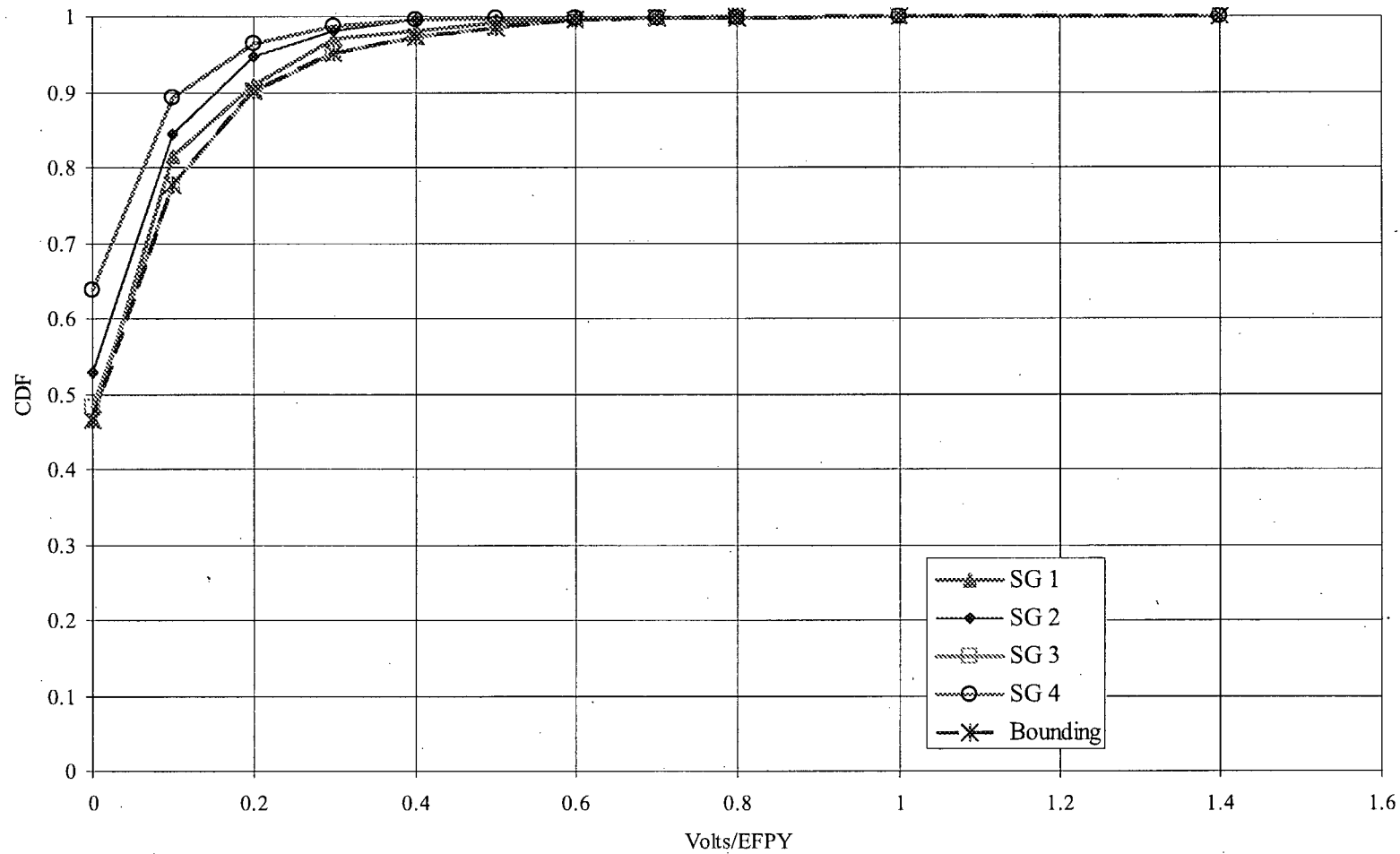


Figure 3-14: Sequoyah-2 Voltage Growth Rate for Cycle 15

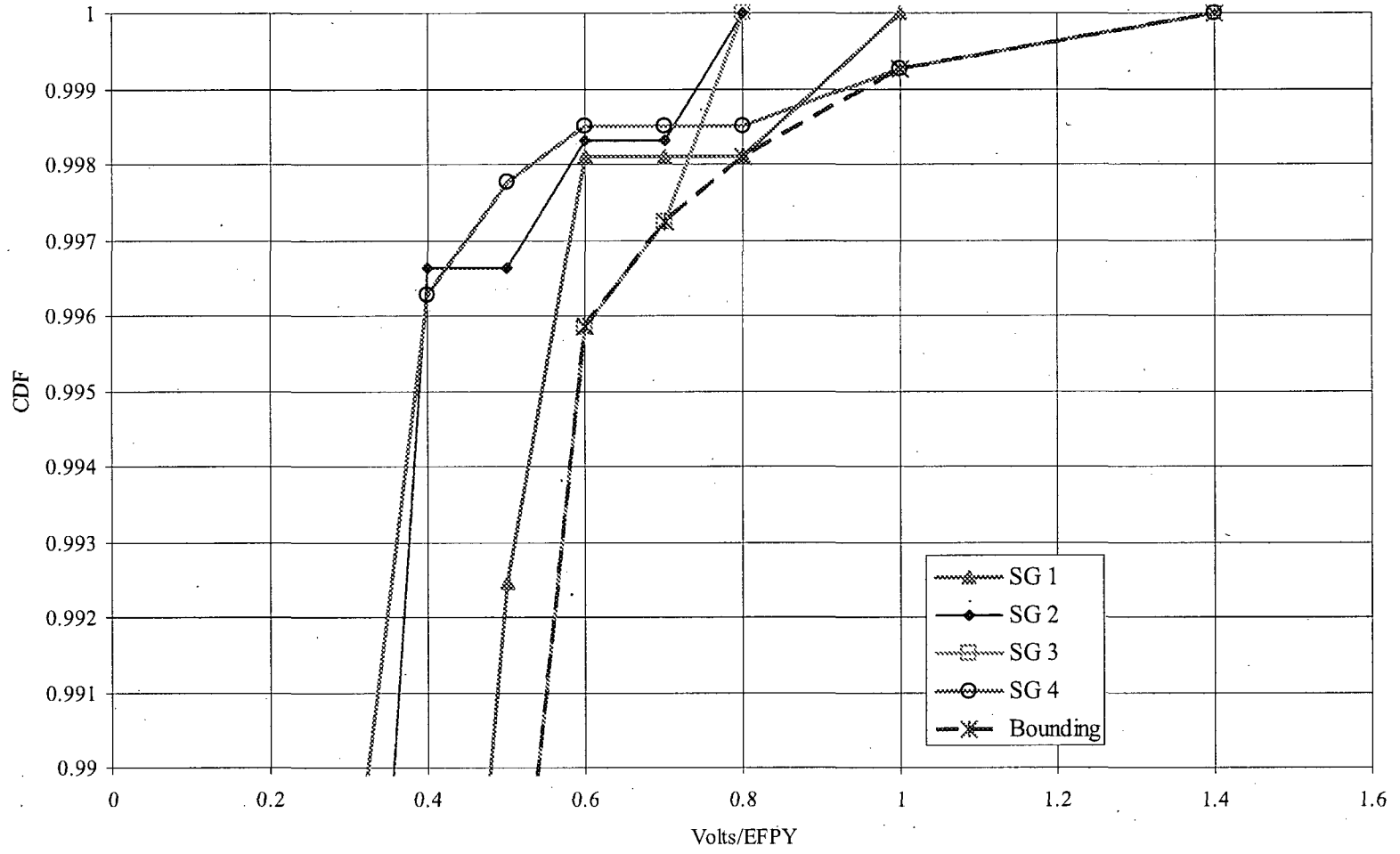


Figure 3-15: Sequoyah-2 Voltage Growth Detail

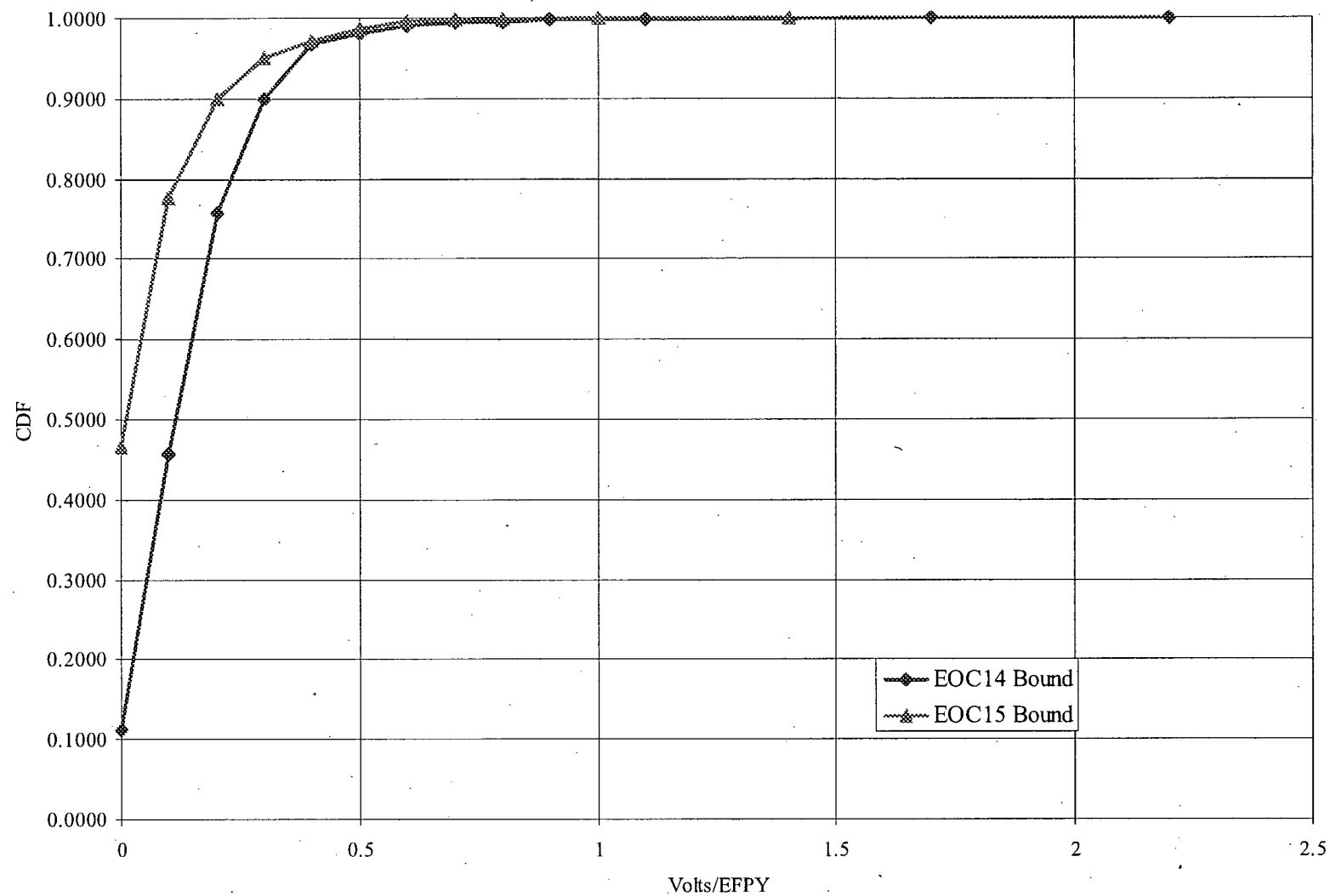


Figure 3-16: Cycle 14 and Cycle 15 Bounding Growth Rates, per EPY

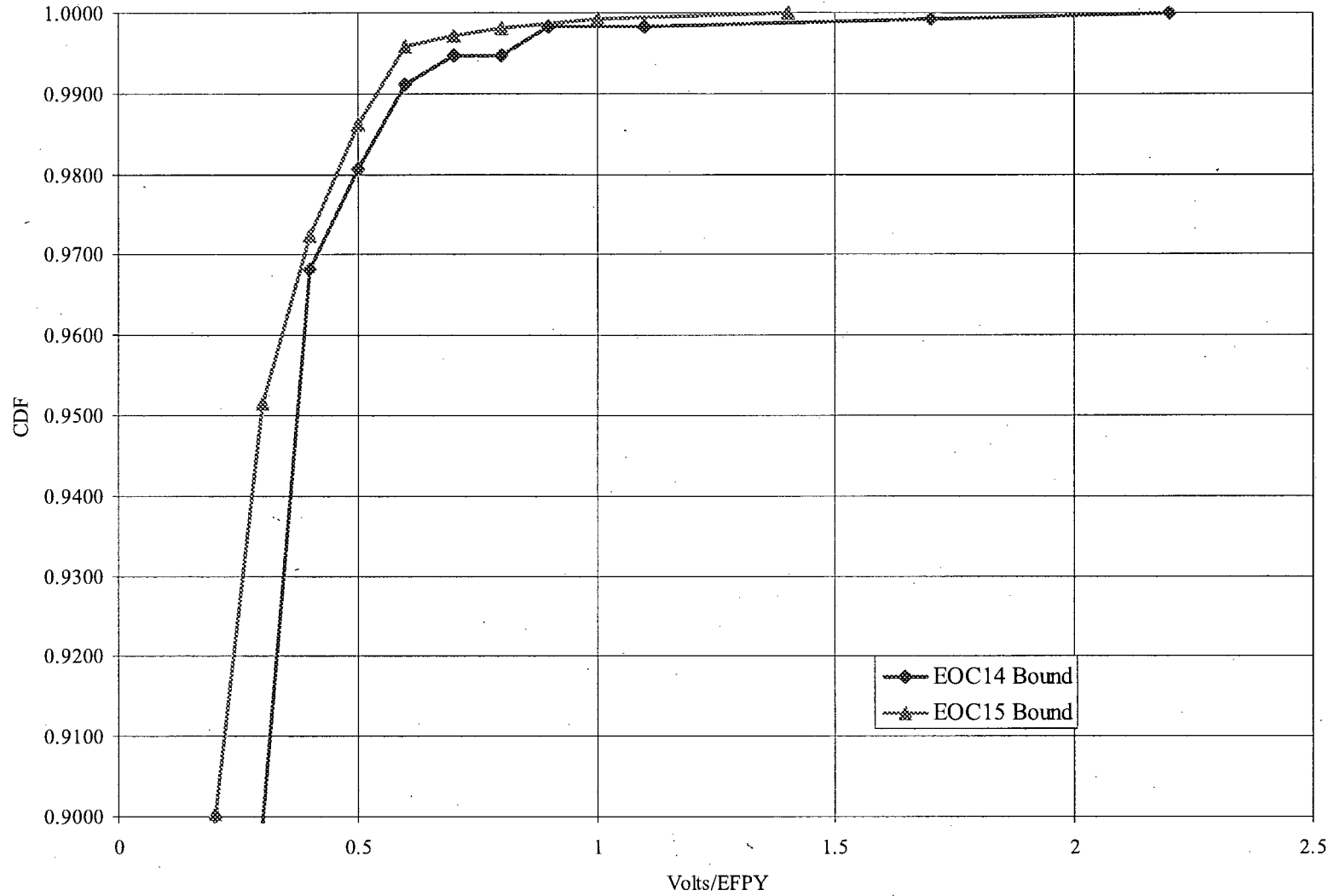


Figure 3-17: Cycle 14 and Cycle 15 Bounding Growth Rates, per EPFY, Detail View

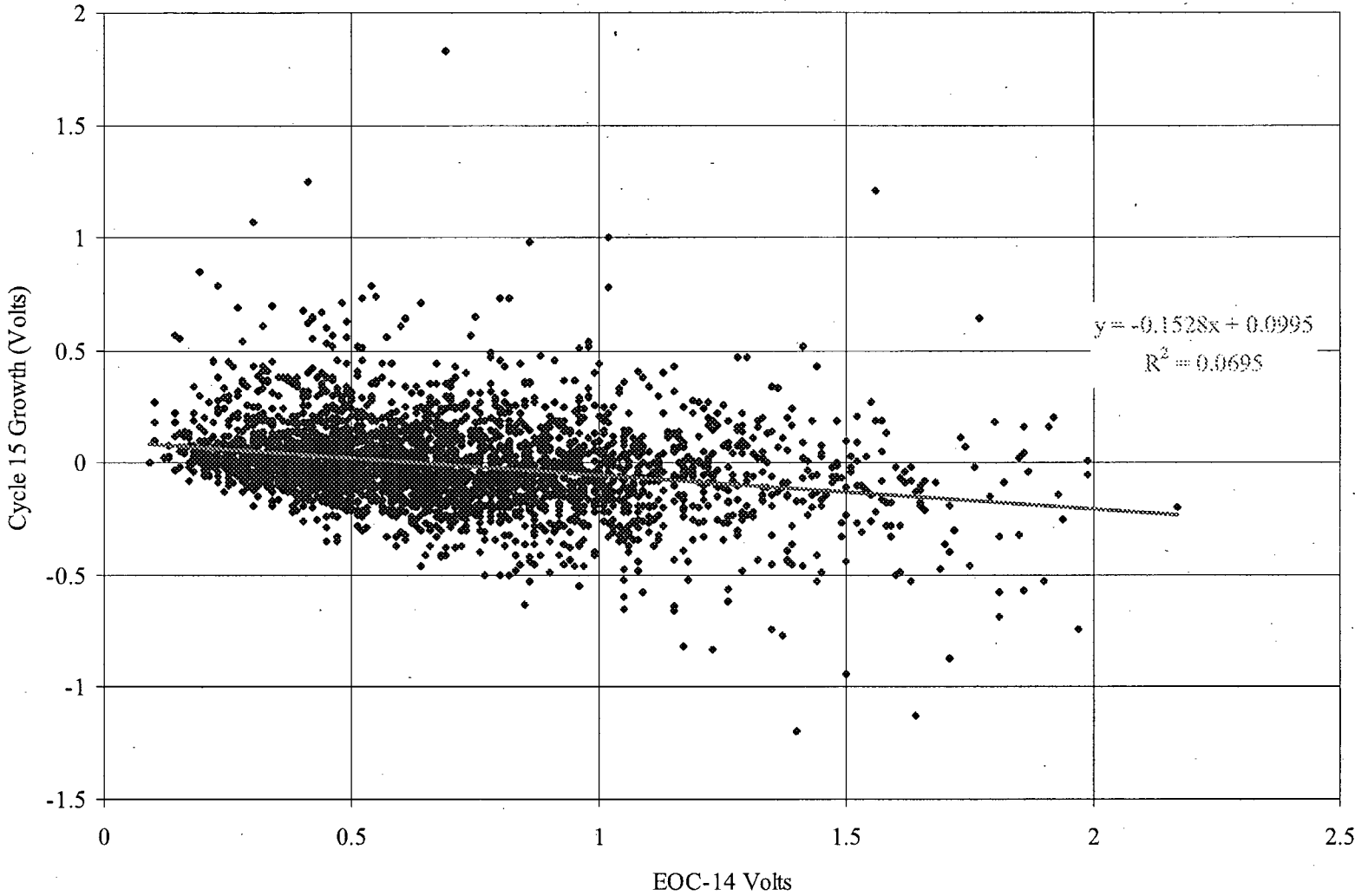


Figure 3-18: Growth as a Function of BOC Voltage for All SGs

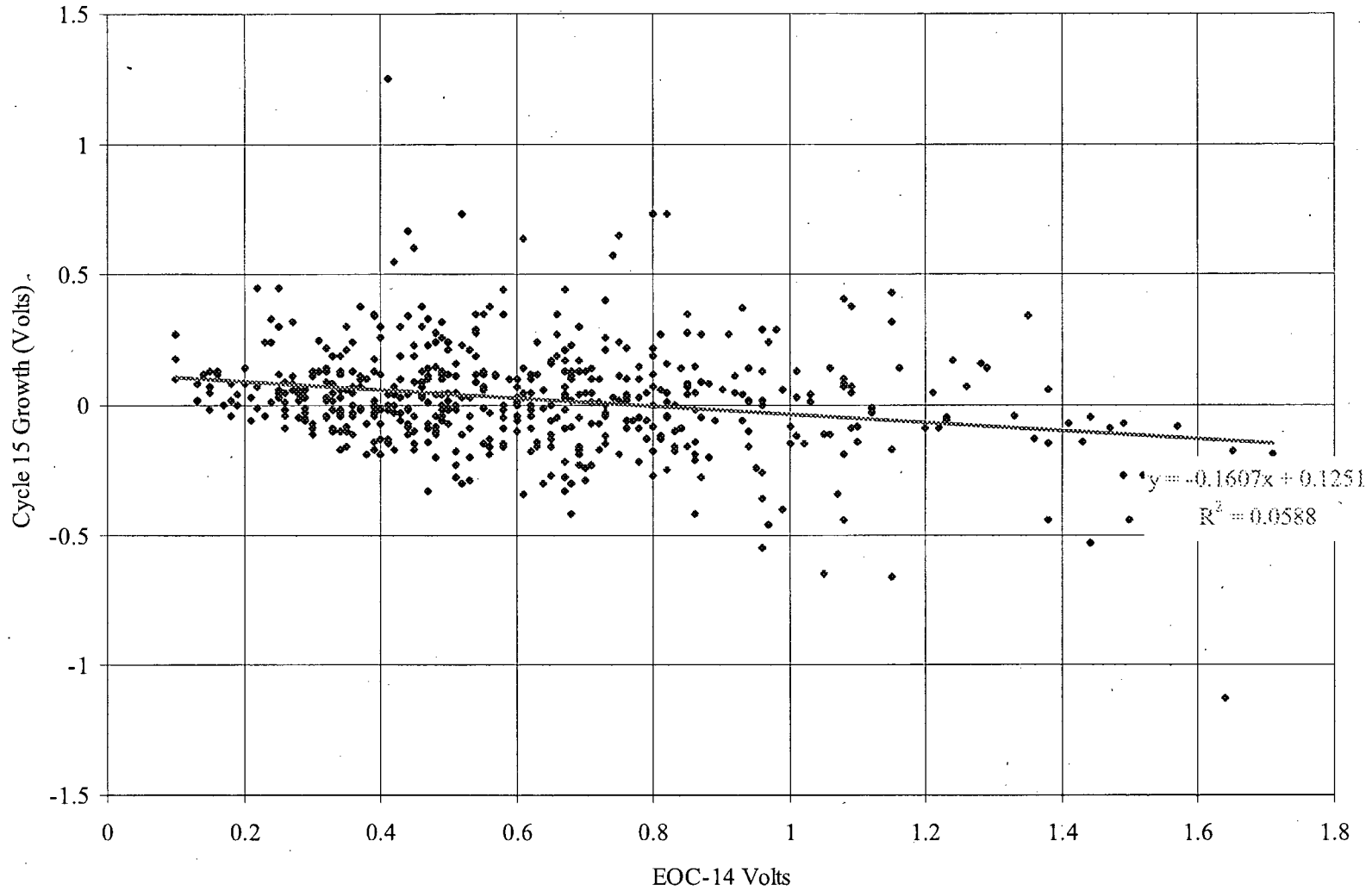


Figure 3-19: Growth as a Function of BOC Voltage for SG 1



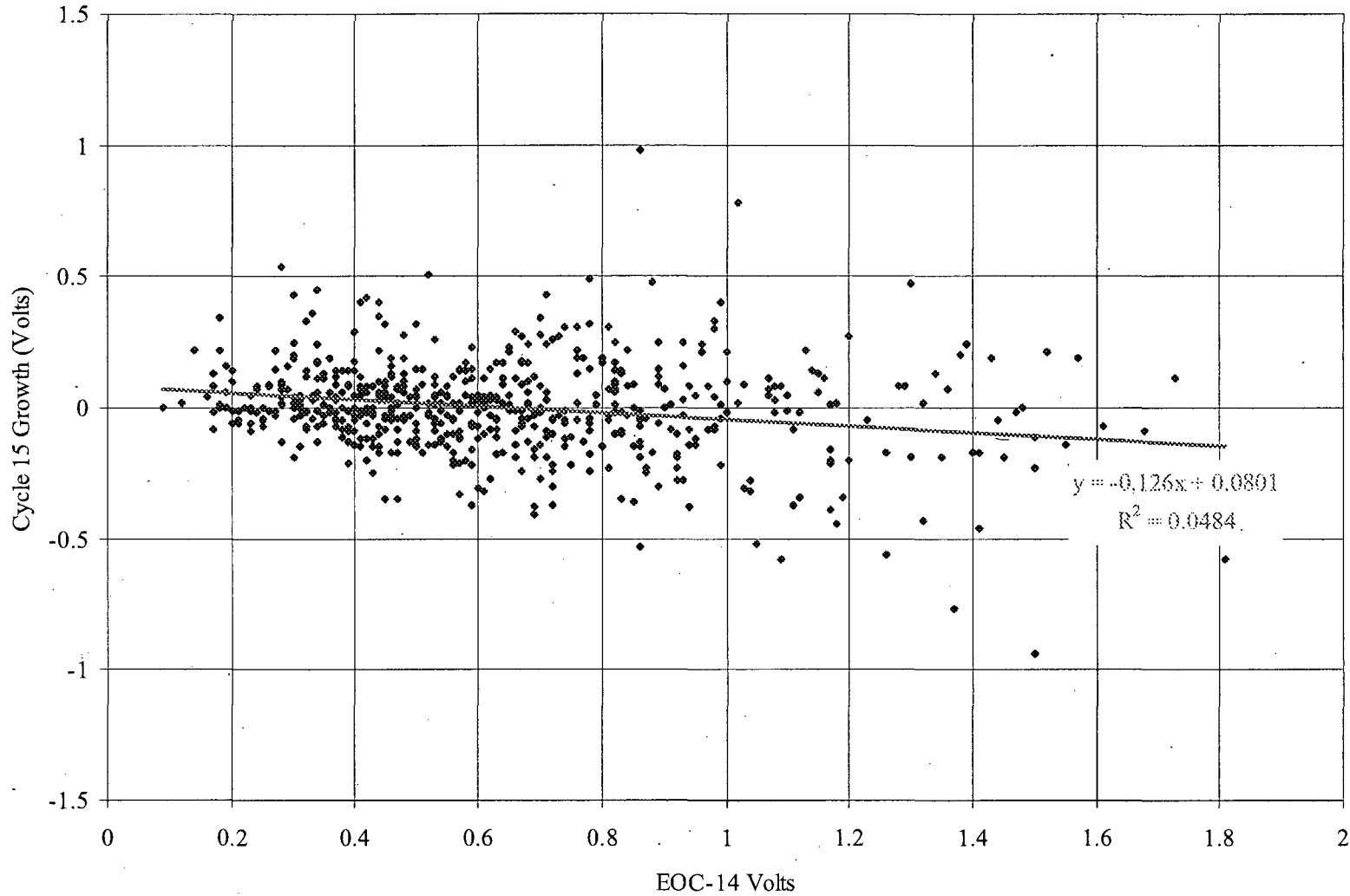


Figure 3-20: Growth as a Function of BOC Voltage for SG 2

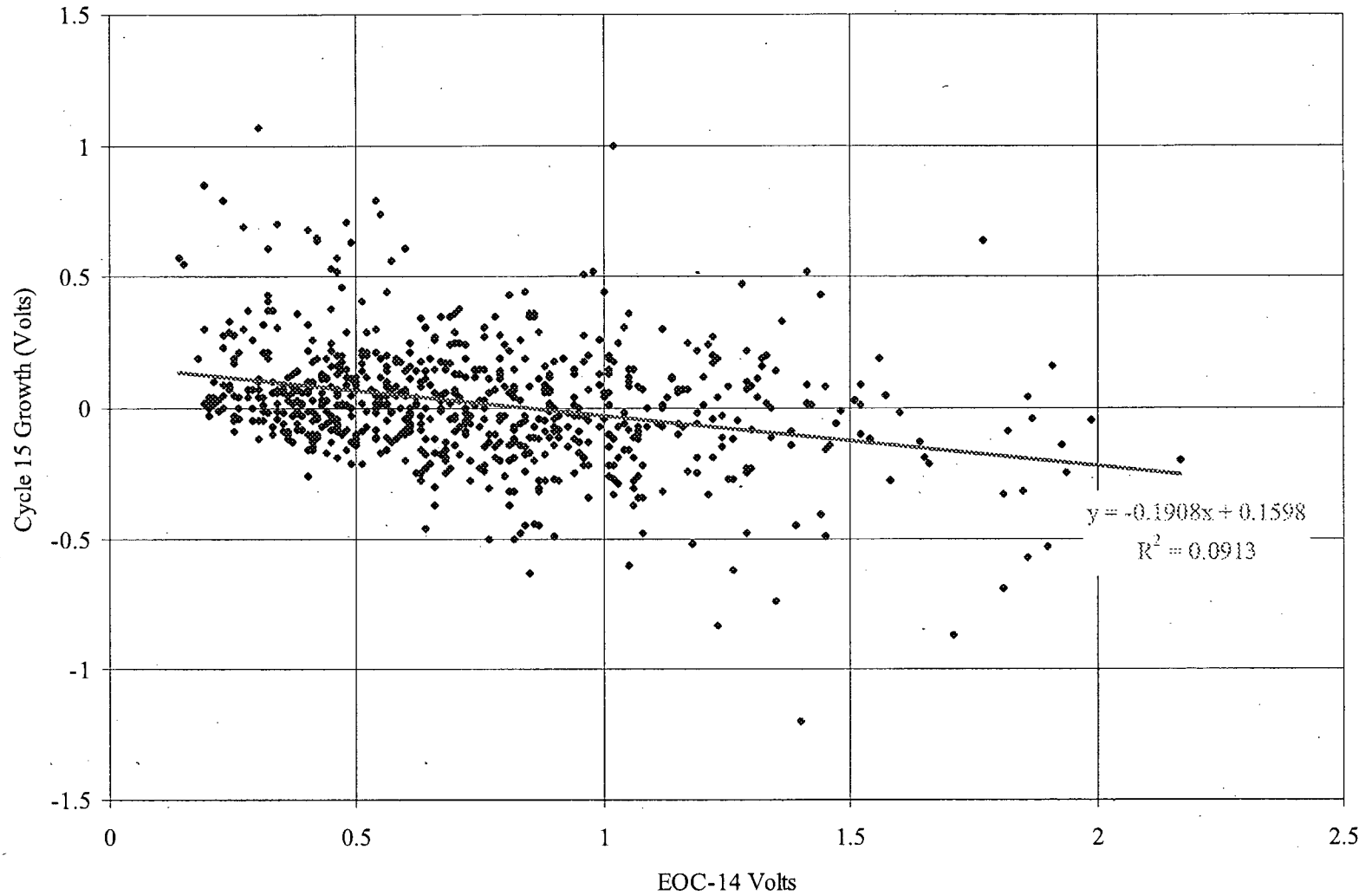


Figure 3-21: Growth as a Function of BOC Voltage for SG 3

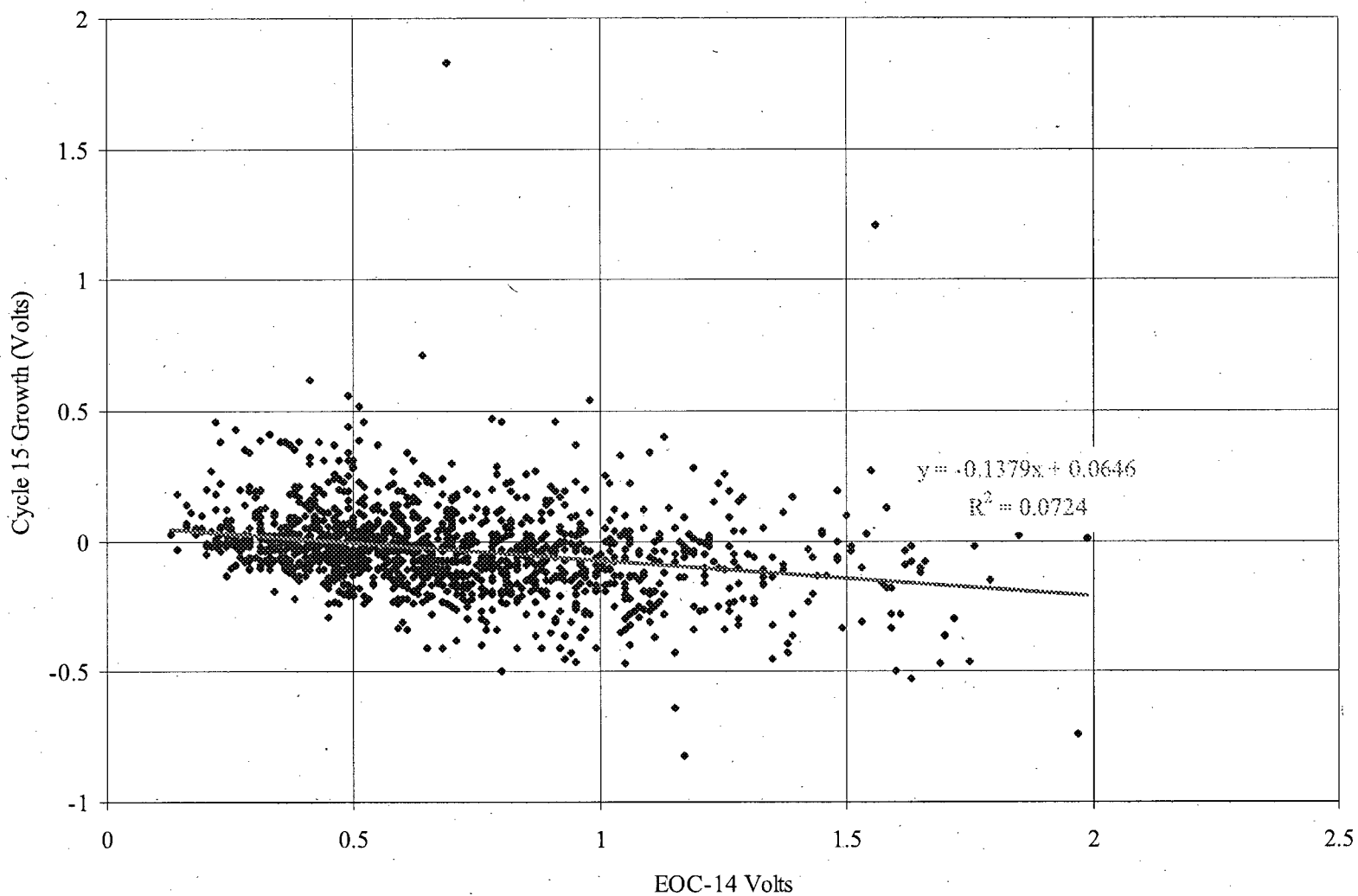


Figure 3-22: Growth as a Function of BOC Voltage for SG 4

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## 4.0 ANALYSIS METHODS AND DATA BASE FOR ARC CORRELATIONS

A Monte Carlo based computer program was used to perform the calculations prescribed in GL 95-05 (Reference 1). The methodology for predicting the EOC voltage distribution and computing the probability of burst and leakage at accident conditions is based on the Westinghouse Topical Report, WCAP-14277, Revision 1 (Reference 3) supplemented by the changes in the leakage computation process that are discussed in Reference 8, as amended in Reference 9. The EOC voltage distribution, probability of burst and the leakage are computed using the Cyclesim3.1 program, Reference 10.

The predictions for EOC-15 recorded in Reference 5 used the tube burst and leakage correlations of Addendum 6 to EPRI Report NP-7480-L modified according to References 8 and 9. Both the condition monitoring assessment for EOC-15 and the operational assessment predicting the EOC-16 voltage distribution are also performed using the Addendum 6 database (Reference 6). Since Sequoyah Unit 2 can take credit for PORV actuation, the condition monitoring and operational assessments are performed using the leakage correlation for 2405 psi (Reference 2). The specific parameters used in the correlations are provided in Sections 4.1 through 4.4.

### 4.1 TUBE MATERIAL PROPERTIES

The tube material properties are provided in Table 4-1 of Reference 3 for 7/8-inch diameter tubes at 650°F. The parameters used in the analysis are the flow stress mean of 68.78 ksi and the flow stress standard deviation of 3.1725 ksi.

## 4.2 BURST CORRELATION

The burst pressure,  $P_b$ , is normalized to a material with a flow stress of 68.78 ksi, which is the mean of the 7/8-inch tube data appropriate for Sequoyah Unit 2. The correlation parameters shown in Table 4-1 below are taken from Reference 6.

Table 4-1: 7/8" Tube Burst Pressure vs. Bobbin Amplitude Correlation Parameters

$P_B = a_0 + a_1 \log(\text{Volts})$	
Parameter	Addendum 6 Database Value
Intercept, $a_0$	7.4801
Slope, $a_1$	-2.4002
Index of Deter., $r^2$	79.67%
Std. Deviation, $\sigma_{Error}$	0.8802
Mean of $\log(V)$	0.3111
SS of $\log(V)$	51.6595
$N$ (data pairs)	100
Str. Limit (2560 psi) <sup>(1)</sup>	7.51V
Str. Limit (2405 psi)	9.40V
$p$ Value for $a_1$ <sup>(2)</sup>	$5.60 \cdot 10^{-36}$
Reference $\sigma_f$	68.78 ksi <sup>(3)</sup>
Notes: (1) Values reported correspond to applying a safety factor of 1.4 on the differential pressure associated with a postulated SLB event. (2) Numerical values are reported only to demonstrate compliance with the requirement that the value be less than 0.05. (3) This is the flow stress value to which all data were normalized prior to performing the regression analysis. This affects the coefficient and standard error values. The corresponding values for a flow stress of 75.0 ksi can be obtained from the above values by multiplying by 1.0904.	

## 4.3 LEAK RATE CORRELATION

The leak rate correlation as a function of indication voltage is taken from Reference 6. The steam line break pressure is given as 2405 psi in Reference 2. Therefore the leak correlation for pressure of 2405 psi from Reference 6 is used for the leakage predictions. The parameters are shown in Table 4-2.

The leak rate criterion is given in terms of gallons per minute condensed at room temperature.

Table 4-2: 7/8" Tube Leak Rate vs. Bobbin Amplitude Correlation Parameters

$Q = 10^{[b_3 + b_4 \log(\text{Volts})]}$	
Parameter	Addendum 6 Database Value
<b>SLB <math>\Delta P = 2560</math> psi</b>	
Intercept, $b_3$	-0.33476
Slope, $b_4$	0.95311
Index of Determination, $r^2$	12.4%
Residuals, $\sigma_{Error} (b_5)$	0.8175
Mean of $\text{Log}(Q)$	0.7014
SS of $\text{Log}(Q)$	22.8754
$p$ Value for $b_4$	2.4%
<b>SLB <math>\Delta P = 2405</math> psi</b>	
Intercept, $b_3$	-0.8039
Slope, $b_4$	1.2077
Index of Determination, $r^2$	20.0%
Residuals, $\sigma_{Error} (b_5)$	0.7774
Mean of $\text{Log}(Q)$	0.5090
SS of $\text{Log}(Q)$	22.6667
$p$ Value for $b_4$	0.5%
<b>Common Data</b>	
Data Pairs, $N$	32
Mean of $\text{Log}(V)$	1.0871
SS of $\text{Log}(V)$	3.1116

#### 4.4 PROBABILITY OF LEAK CORRELATION

The probability of leak as a function of indication voltage is taken from Reference 6. The parameters are shown in Table 4-3. In the Monte Carlo analysis leakage is quantified only if the indication is computed to be a leaker, based on the probability of leak correlation.

Table 4-3: 7/8" Tube Probability of Leak Correlation Parameters

$\Pr( Leak ) = \frac{1}{1 + e^{-[b_1 + b_2 \log(Volts)]}}$	
Parameter	Addendum 6 Database Value
Logistic Intercept, $b_1$	-5.0407
Logistic Slope, $b_2$	7.5434
Intercept Variance, $V_{11}$ <sup>(2)</sup>	1.3311
Covariance, $V_{12}$	-1.7606
Slope Variance, $V_{22}$	2.7744
Number of Data, $N$	118
Deviance	32.37
Pearson SD	61.1%
MSE	0.279
Notes: (1) The parameter estimates in this column were obtained from an analysis performed with the EdF data excluded from consideration. (2) Parameters $V_{ij}$ are the elements of the covariance matrix of the coefficients, $\beta_i$ , of the regression equation.	

#### 4.5 NDE UNCERTAINTIES

The NDE uncertainties applied for the EOC-15 and EOC-16 voltage projections are the same as used in the previous 90-day report, Reference 5, and described in Reference 3. The probe wear uncertainty has a standard deviation of 7% about a mean of zero and has a cutoff at 15% based on implementation of the probe wear standard. The analyst variability uncertainty has a standard deviation of 10.3% about a mean of zero with no cutoff. These NDE uncertainty distributions are used in the Monte Carlo analysis to predict the burst probabilities and accident leak rates at EOC-15, and EOC-16. The voltages reported were adjusted to account for differences between the laboratory standard and the standard used in the field.

#### 4.6 UPPER VOLTAGE REPAIR LIMIT

The upper voltage repair limit is based on the structural limit in Table 4-1 of 7.51 volts for an accident pressure of 2560 psi. It must be reduced by considering the projected voltage growth during the next cycle and NDE uncertainty. The maximum average percentage growth rate for any steam generator is seen from Table 3-5 (SG 1) to be 4.1% for the 487.1 EFPD Cycle 15, which would project to  $4.1\% \times (491/487.1) = 4.13\%$  for the anticipated 491 EFPD Cycle 16. According to Reference 1, the minimum growth adjustment is 30% per EFPY (40.3% per cycle for the anticipated 491 EFPD Cycle 16). Therefore the specific maximum growth value of 40.3%

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and 20% for NDE uncertainty was used to estimate the voltage repair limit. This results in an upper voltage repair limit of  $7.51 / (1 + 0.403 + 0.20) = 4.68$  volts. No indications equal to or greater than this voltage were left in service.

#### 4.7 PROBE WEAR

An alternate probe wear criteria, approved by the NRC (Reference 7), was applied during the EOC-15 inspection. When a probe does not satisfy the  $\pm 15\%$  voltage variability criteria for wear, this alternate criteria requires that all tubes that have indications above 75% of the repair limit inspected since the last successful probe wear check be re-inspected with a good probe. All probes that failed the wear check were immediately replaced with a new probe. In accordance with this alternate probe wear criteria, the whole tube was re-inspected with a good probe when any part of the tube exceeded 75% of the repair limit. As the repair limit for Sequoyah-2 is 2 volts, all tubes that contained worn probe indications above 1.5 volts were re-inspected with a new probe. In the cases where the original call made with the worn probe was greater than 1.5 volts, the signal amplitude obtained with the new probe was used in these analyses.

A total of 36 indications with a bobbin DSI voltage above 1.5 volts were found in the calibration groups that failed the probe wear check (these indications were called as 'RPW'), and the tubes containing those indications were re-inspected with a new probe. Some of the probes used in the re-inspection were also found to be out of calibration and in those cases a second RPW call was made and another re-inspection was performed. The tubes and the RPW and subsequent DSI voltage are shown in Table 4-4. Some of these retested tubes also had indications with DSI volts less than 1.5; the original DSI voltage was used for those indications. One new indication was detected on retest with DSI voltage of 0.75 volts as shown in Table 4-5.



Table 4-4: Re-Tested Tubes

SG	Row	Col	Support	RPW Volts	Second RPW Volts	Final DSI
1	41	37	H02	1.59		1.47
	27	48	H02	1.5		1.44
	28	50	H02	1.54		0.91
2	3	42	H02	1.64		1.84
	7	48	H01	1.53		1.12
	30	54	H01	1.54		1.63
	42	67	H06	1.66		1.76
	27	68	H01	1.68		1.84
	30	74	H02	1.6		1.73
	15	89	H01	1.66		1.58
3	15	3	H01	1.53	1.45	1.45
	25	8	H01	1.71	1.61	1.69
	23	13	H01	1.64	1.52	1.62
	20	28	H01	1.85		1.54
	26	28	H01	1.66		1.48
	31	28	H01	1.8		1.53
	32	28	H01	1.51		1.33
	20	2	H01	2.1		1.79
	31	32	H02	1.55		1.22
	43	36	H01	1.62		1.53
	44	58	H01	1.75		1.32
	44	59	H02	2.15		2.07
	31	76	H01	1.55		1.24
4	20	25	H01	1.55	1.65	1.58
	17	27	H01	1.65	1.75	1.82
	12	34	H02	2.72	2.78	2.77
	20	40	H01	1.96	2.03	2.02
	25	40	H01	1.85		2.12
	25	42	H01	1.66	1.6	1.53
	20	46	H02	1.74		1.38
	22	47	H02	1.57		1.21
	13	48	H01	1.62		1.81
	26	68	H01	1.75		1.6
	20	69	H01	1.67	1.76	1.98
	27	73	H02	1.97	1.96	2
14	86	H01	1.54		1.46	

Table 4-5: New Indication Identified by Re-Test

SG	Row	Col	Sup	RPW1	RPW2	DSI
2	30	54	H02	NEW		0.75

Figure 4-1 shows the good probe voltages plotted against the worn probe voltages for all four SGs. Several indications with an RPW voltage less than the repair criterion of 2 volts upon retest had DSI indications near or slightly exceeding 2 volts. An upper bound to the retest DSI voltage in Figure 4-1 indicates that the retest criterion of 1.5 volts is reasonable.

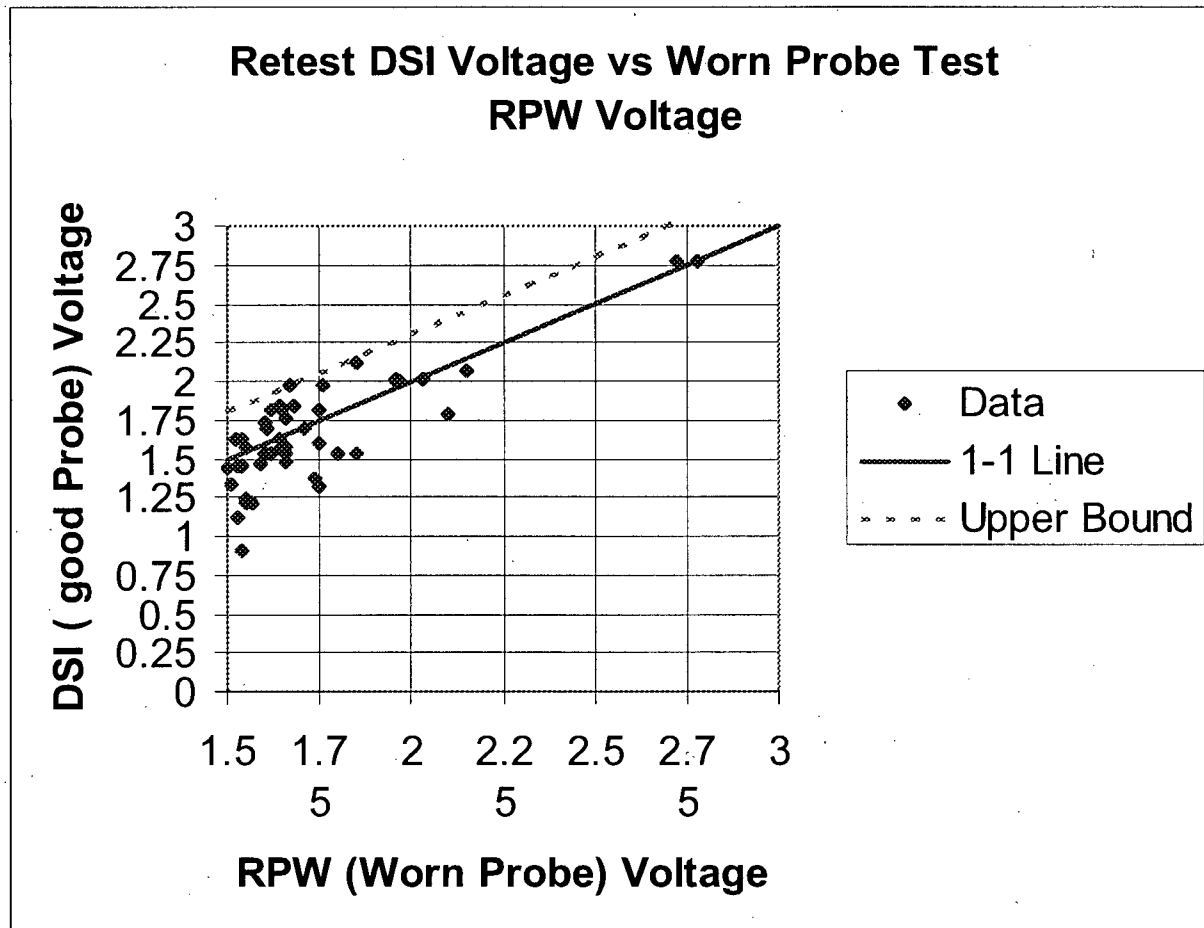


Figure 4-1: Retest DSI Voltage vs. First Test Voltage (RPW) of Indications Originally Measured with Worn Probe

The indications found in the current inspection that were tested with a worn probe in the previous (2006) inspection were identified. A summary of these results are given in Table 4-6 through Table 4-10 and Figure 4-2 through Figure 4-5. The similarity of the distribution of DSI voltages for new indications in 2008 in tubes tested with worn probes in 2006 and new indications in 2008 in tubes tested with good probes in 2006 demonstrates that these two groups of indications are from the same population.

Table 4-6: Summary of SG1 Indications Found in the Current Inspection that were Tested with a Worn Probe in the Previous Inspection

Steam Generator 1		
Number of new indications in EOC-15		109
Worn Probe in EOC-14	Number of new indications tested with worn probe in EOC-14	30
	Number of these equal to or greater than 0.5 V in EOC-15	11
	Number of tubes tested with worn probe	385
Good Probe in EOC-14	Number of new indications tested with good probe in EOC-14	79
	Number of these equal to or greater than 0.5 V in EOC-15	38
	Number of tubes tested with good probe	2918
Ratio of new indications in tubes tested with worn probe to number of tubes tested with a worn probe		$30/385 = 0.078$
Ratio of new indications in tubes tested with good probe to number of tubes tested with a good probe		$79/2918 = 0.027$
Percentage of new indications equal to or greater than 0.5 V in tubes tested with worn probe		$11/30 = 36.7\%$
Percentage of new indications equal to or greater than 0.5 V in tubes tested with good probe		$38/79 = 48.1\%$

Steam Generator 1		
Number of previous indications in EOC-15		431
Worn Probe in EOC-14	Number of previous indications tested with worn probe in EOC-14	56
	Number of these exceeding 2.0 V in EOC-15	0
	Highest voltage indication of these in EOC-15	1.44V

The distribution of DSI volts for new indications in tubes previously tested with good probes and worn probes respectively for SG 1 are shown in Figure 4-2.

Table 4-7: Summary of SG2 Indications Found in the Current Inspection that were Tested with a Worn Probe in the Previous Inspection

Steam Generator 2		
Number of new indications in EOC-15		101
Worn Probe in EOC-14	Number of new indications tested with worn probe in EOC-14	5
	Number of these equal to or greater than 0.5 V in EOC-15	3
	Number of tubes tested with worn probe	180
Good Probe in EOC-14	Number of new indications tested with good probe in EOC-14	96
	Number of these equal to or greater than 0.5 V in EOC-15	48
	Number of tubes tested with good probe	3026
Ratio of new indications in tubes tested with worn probe to number of tubes tested with a worn probe		$5/180 = 0.028$
Ratio of new indications in tubes tested with good probe to number of tubes tested with a good probe		$96/3026 = 0.032$
Percentage of new indications equal to or greater than 0.5 V in tubes tested with worn probe		$3/5 = 60.0\%$
Percentage of new indications equal to or greater than 0.5 V in tubes tested with good probe		$48/96 = 50.0\%$

Steam Generator 2		
Number of previous indications in EOC-15		501
Worn Probe in EOC-14	Number of previous indications tested with worn probe in EOC-14	34
	Number of these exceeding 2.0 V in EOC-15	0
	Highest voltage indication of these in EOC-15	1.24V

The distribution of DSI volts for new indications in tubes previously tested with good probes and worn probes respectively for SG 2 are shown in Figure 4-3.

Table 4-8: Summary of SG3 Indications Found in the Current Inspection that were Tested with a Worn Probe in the Previous Inspection

Steam Generator 3		
Number of new indications in EOC-15		163
Worn Probe in EOC-14	Number of new indications tested with worn probe in EOC-14	27
	Number of these equal to or greater than 0.5 V in EOC-15	15
	Number of tubes tested with worn probe	660
Good Probe in EOC-14	Number of new indications tested with good probe in EOC-14	136
	Number of these equal to or greater than 0.5 V in EOC-15	85
	Number of tubes tested with good probe	2587
Ratio of new indications in tubes tested with worn probe to number of tubes tested with a worn probe		$27/660 = 0.041$
Ratio of new indications in tubes tested with good probe to number of tubes tested with a good probe		$136/2587 = 0.053$
Percentage of new indications equal to or greater than 0.5 V in tubes tested with worn probe		$15/27 = 55.5\%$
Percentage of new indications equal to or greater than 0.5 V in tubes tested with good probe		$85/136 = 62.5\%$

Steam Generator 3		
Number of previous indications in EOC-15		566
Worn Probe in EOC-14	Number of previous indications tested with worn probe in EOC-14	113
	Number of these exceeding 2.0 V in EOC-15	0
	Highest voltage indication of these in EOC-15	1.93V

The distribution of DSI volts for new indications in tubes previously tested with good probes and worn probes respectively for SG 3 are shown in Figure 4-4.

Table 4-9: Summary of SG4 Indications Found in the Current Inspection that were Tested with a Worn Probe in the Previous Inspection

Steam Generator 4		
Number of new indications in EOC-15		144
Worn Probe in EOC-14	Number of new indications tested with worn probe in EOC-14	16
	Number of these equal to or greater than 0.5 V in EOC-15	8
	Number of tubes tested with worn probe	344
Good Probe in EOC-14	Number of new indications tested with good probe in EOC-14	128
	Number of these equal to or greater than 0.5 V in EOC-15	60
	Number of tubes tested with good probe	2909
Ratio of new indications in tubes tested with worn probe to number of tubes tested with a worn probe		$16/344 = 0.047$
Ratio of new indications in tubes tested with good probe to number of tubes tested with a good probe		$128/2909 = 0.044$
Percentage of new indications equal to or greater than 0.5 V in tubes tested with worn probe		$8/16 = 50.0\%$
Percentage of new indications equal to or greater than 0.5 V in tubes tested with good probe		$60/128 = 46.9\%$

Steam Generator 4		
Number of previous indications in EOC-15		1208
Worn Probe in EOC-14	Number of previous indications tested with worn probe in EOC-14	86
	Number of these exceeding 2.0 V in EOC-15	0
	Highest voltage indication of these in EOC-15	1.82V

The distribution of DSI volts for new indications in tubes previously tested with good probes and worn probes respectively for SG 4 are shown in Figure 4-5.

Table 4-10: Summary of All Indications Found in the Current Inspection that were Tested with a Worn Probe in the Previous Inspection

All Steam Generators Combined		
Number of new indications in EOC-15		517
Worn Probe in EOC-14	Number of new indications tested with worn probe in EOC-14	78
	Number of these equal to or greater than 0.5 V in EOC-15	37
	Number of tubes tested with worn probe	1569
Good Probe in EOC-14	Number of new indications tested with good probe in EOC-14	439
	Number of these equal to or greater than 0.5 V in EOC-15	231
	Number of tubes tested with good probe	11440
Ratio of new indications in tubes tested with worn probe to number of tubes tested with a worn probe		$78/1569 = 0.050$
Ratio of new indications in tubes tested with good probe to number of tubes tested with a good probe		$439/11440 = 0.038$
Percentage of new indications equal to or greater than 0.5 V in tubes tested with worn probe		$37/78 = 47.4\%$
Percentage of new indications equal to or greater than 0.5 V in tubes tested with good probe		$231/439 = 52.6\%$

All Steam Generators Combined		
Number of previous indications in EOC-15		2706
Worn Probe in EOC-14	Number of previous indications tested with worn probe in EOC-14	289
	Number of these exceeding 2.0 V in EOC-15	0
	Highest voltage indication of these in EOC-15	1.93V

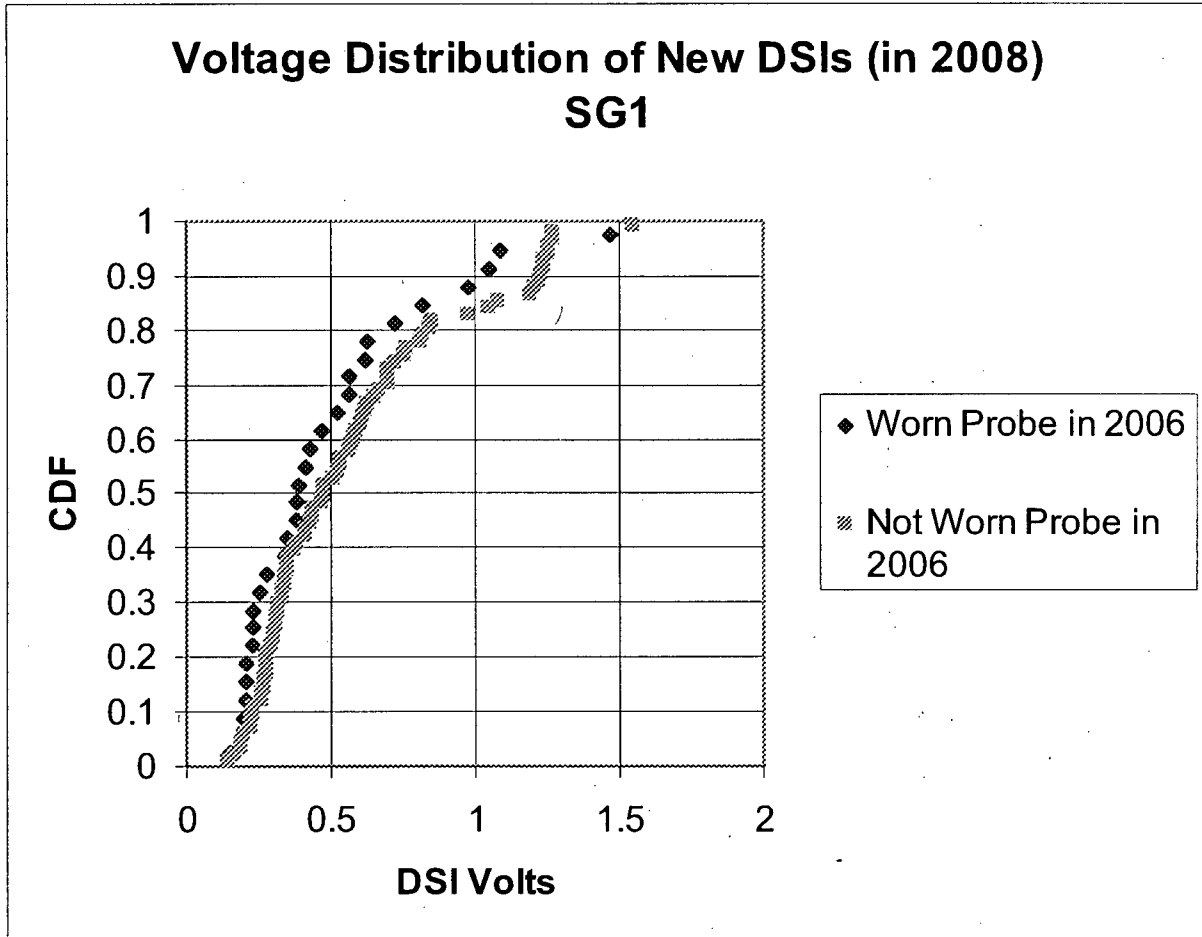


Figure 4-2: Voltage Distribution of New DSIs in SG1



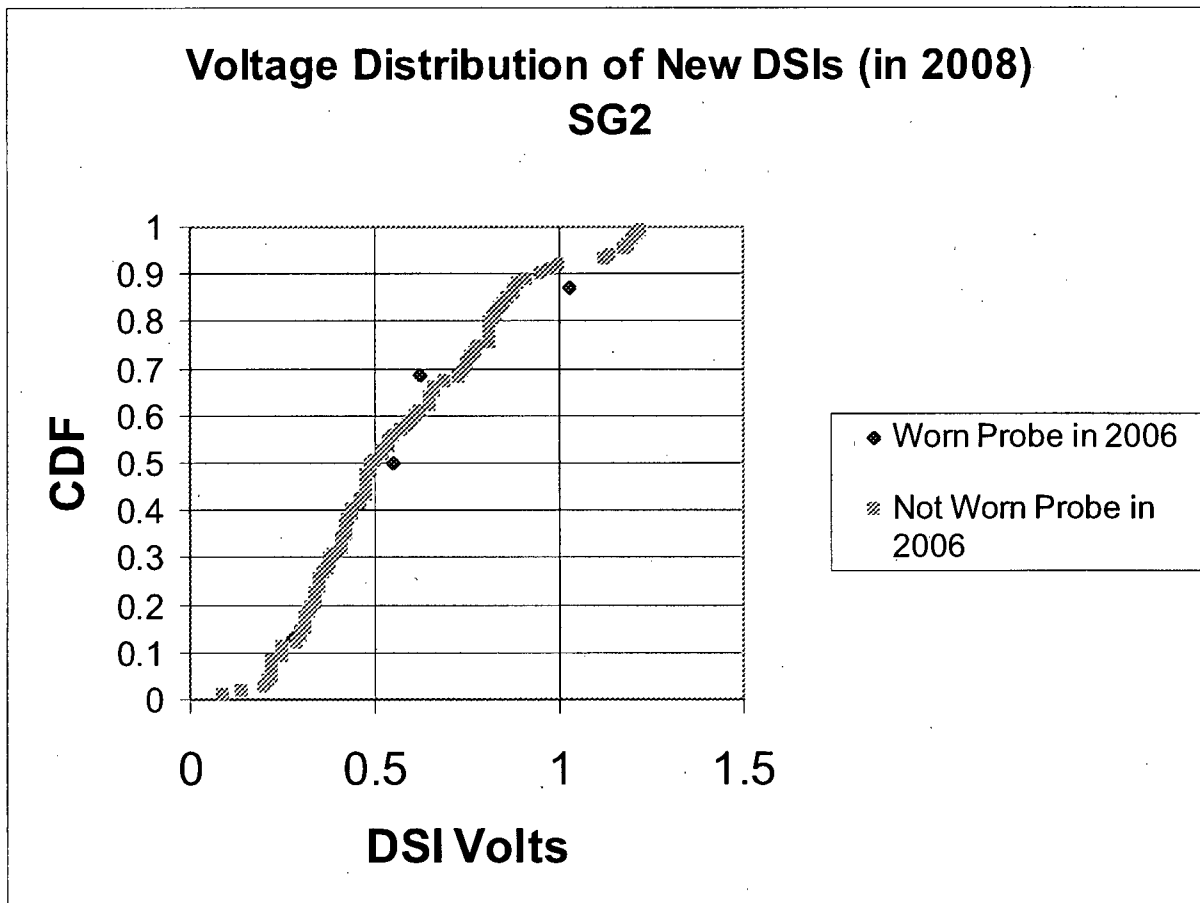


Figure 4-3: Voltage Distribution of New DSIs in SG2

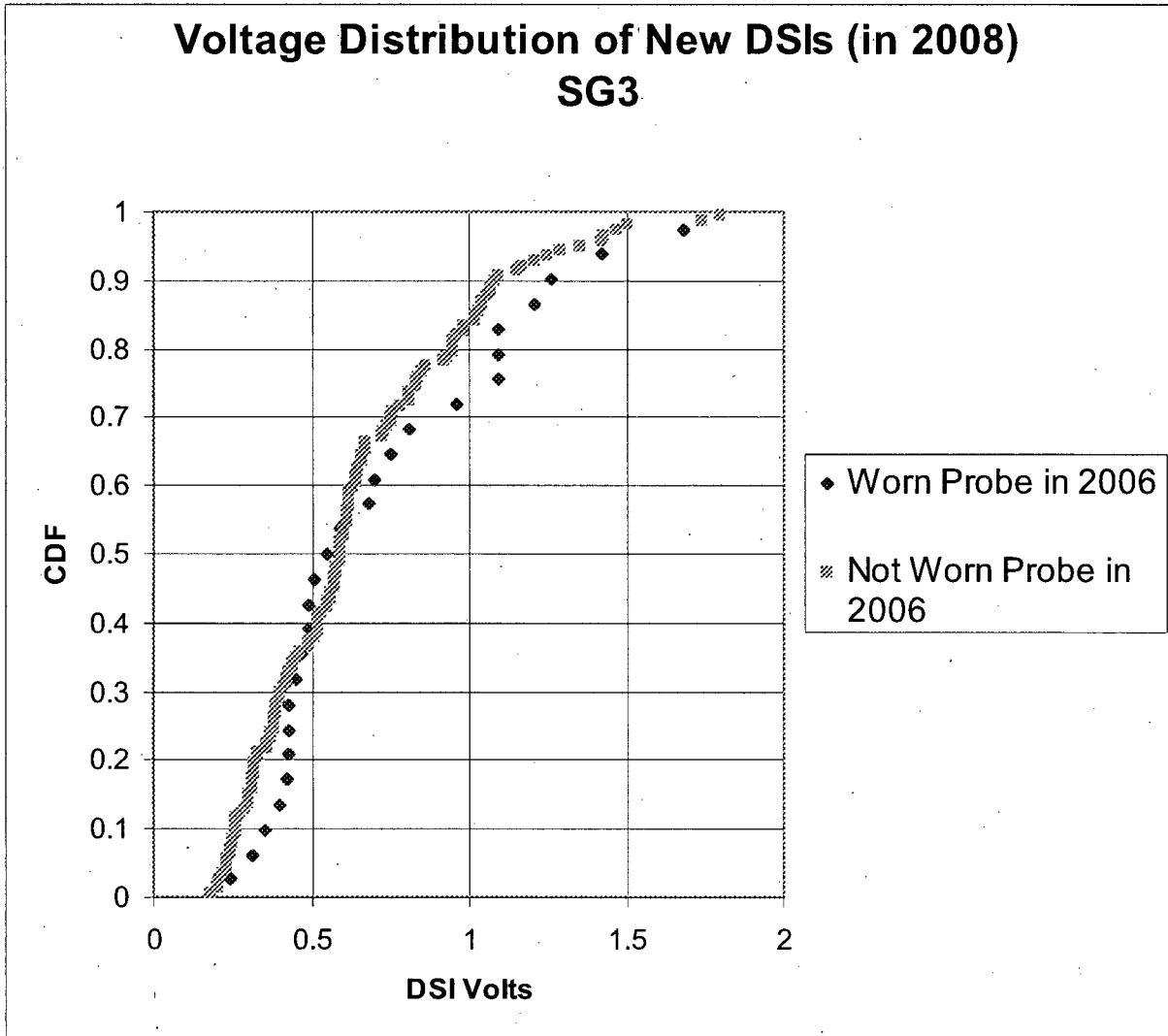


Figure 4-4: Voltage Distribution of New DSIs in SG3

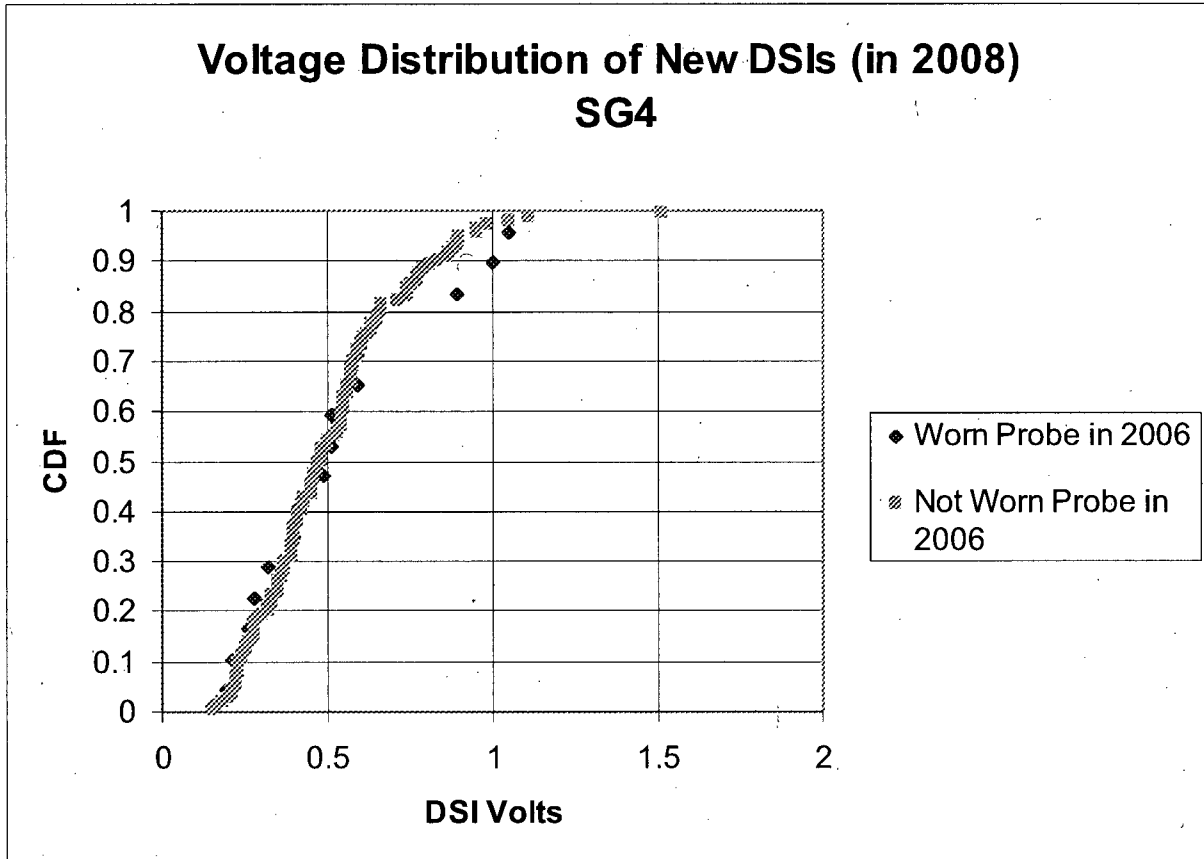


Figure 4-5: Voltage Distribution of New DSIs in SG4

The indications found in the current inspection (EOC-15) that were tested with a worn probe in the previous (EOC-14) inspection were identified as seen in the tables above. Of the 289 indications found in the current inspection that were tested with a worn probe in the previous inspection, none were 2 volts or greater. Of the 2417 indications found in the current inspection that were tested with a good probe in the previous inspection, eight were 2 volts or greater. Therefore there is no significant difference in the proportion of repairable indications for tubes previously tested with a worn probe.

As required by the NRC letter to the Nuclear Energy Institute dated February 9, 1996 (Reference 7), the number of new indications detected in the present inspection in tubes that were inspected with a worn probe in the last inspection was also determined. Out of a total of 517 new indications reported in the current inspection only 78 were in tubes inspected with a worn probe during the last inspection. In all SGs combined the ratio of new indications that were identified in tubes tested with a worn probe in EOC-14 to the number of tubes tested with a worn probe in EOC-14 is 0.050. The ratio of new indications that were identified in tubes tested with a good probe in EOC-14 to the number of tubes tested with a good probe in EOC-14 for all SGs combined is 0.038. The percentage of new indications equal to or greater than 0.5 V in tubes tested with a worn probe in all SGs is 47.4%, and the percentage of new indications equal to or greater than 0.5 V in tubes tested with good probe in all SGs is 52.6%. The similarity of these ratios and percentages indicate that there is no significant difference in the rate of occurrence or magnitude of new indications found in the EOC-15 inspection due to testing with a worn probe in the EOC-14 inspection. Thus, the requirements specified for applying the alternate probe wear criteria are met.

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## 5.0 **CONDITION MONITORING: TUBE LEAK RATE AND BURST PROBABILITIES AT EOC-15**

### 5.1 ANALYSIS APPROACH

The measured EOC-15 voltage distributions of Table 3-1 through Table 3-4 for each steam generator are used as the basis for the leak rate and burst probability predictions for EOC-15. The voltage distributions developed for the computation of POB and leakage consider NDE uncertainty on the measured values, but consider no voltage growth. The resulting voltage distributions used for computation of the probability of burst and leakage are given in Figure 5-1 through Figure 5-4.

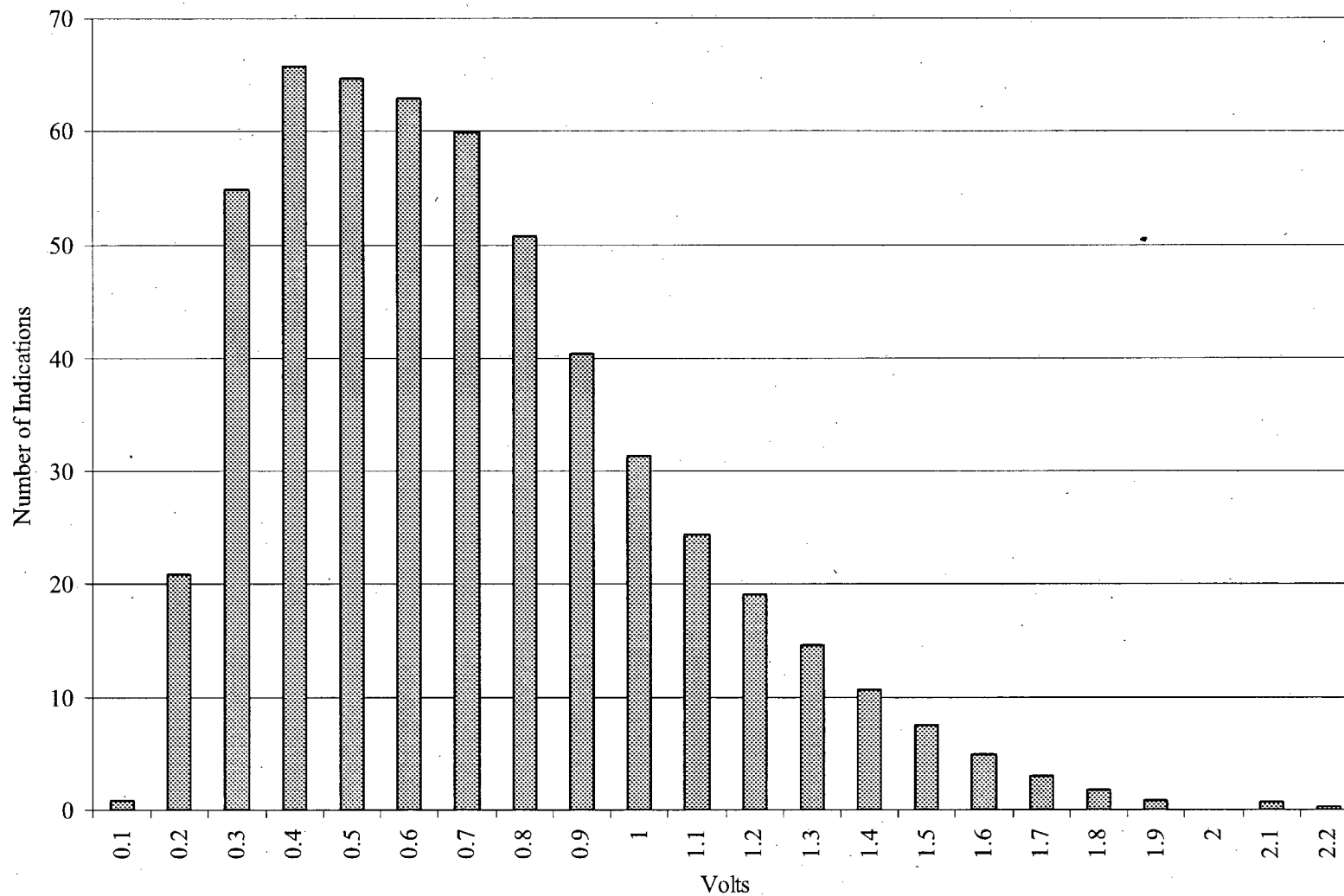


Figure 5-1: Voltage Distribution with NDE Uncertainty, SG 1

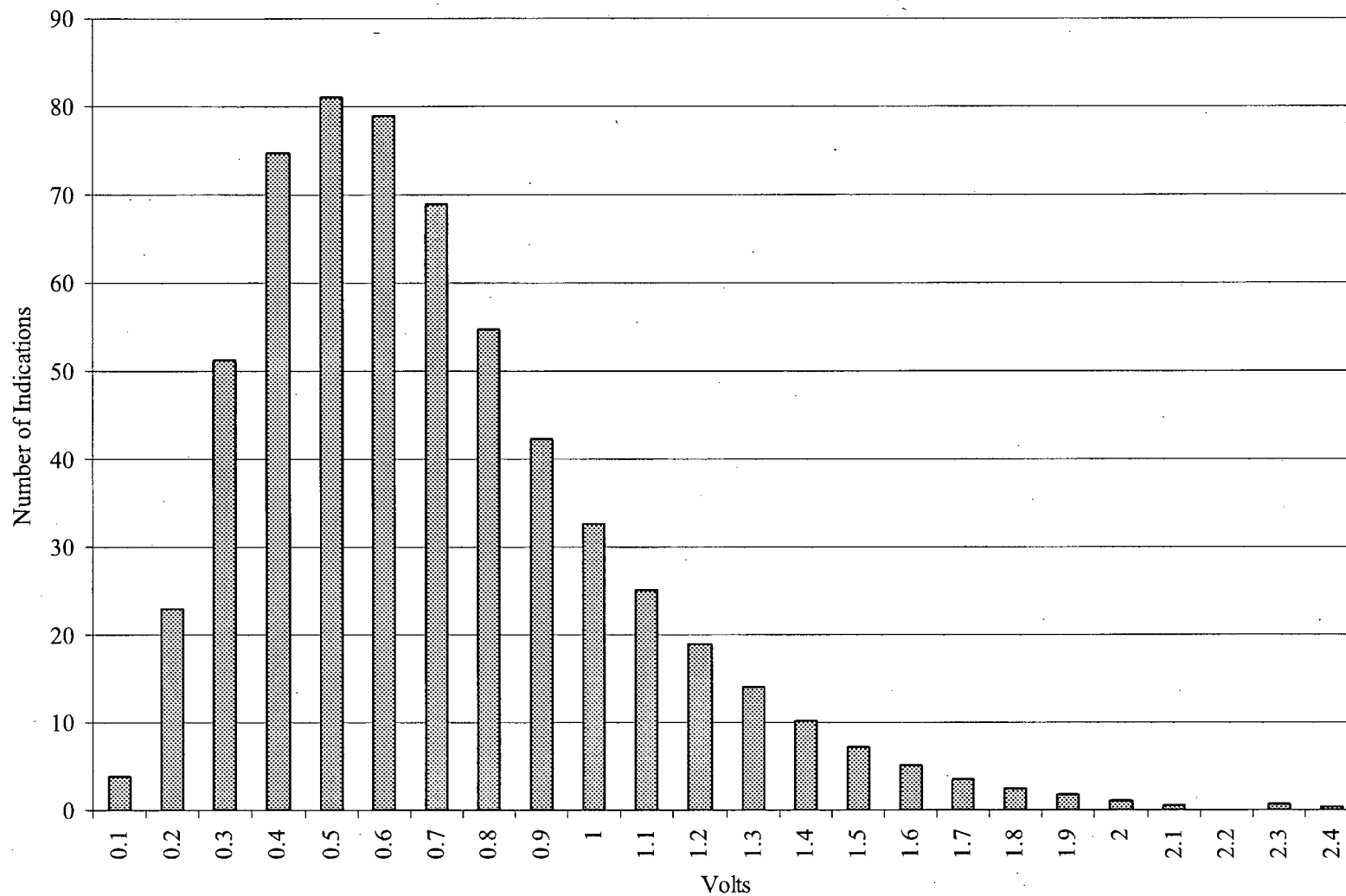


Figure 5-2: Voltage Distribution with NDE Uncertainty, SG 2

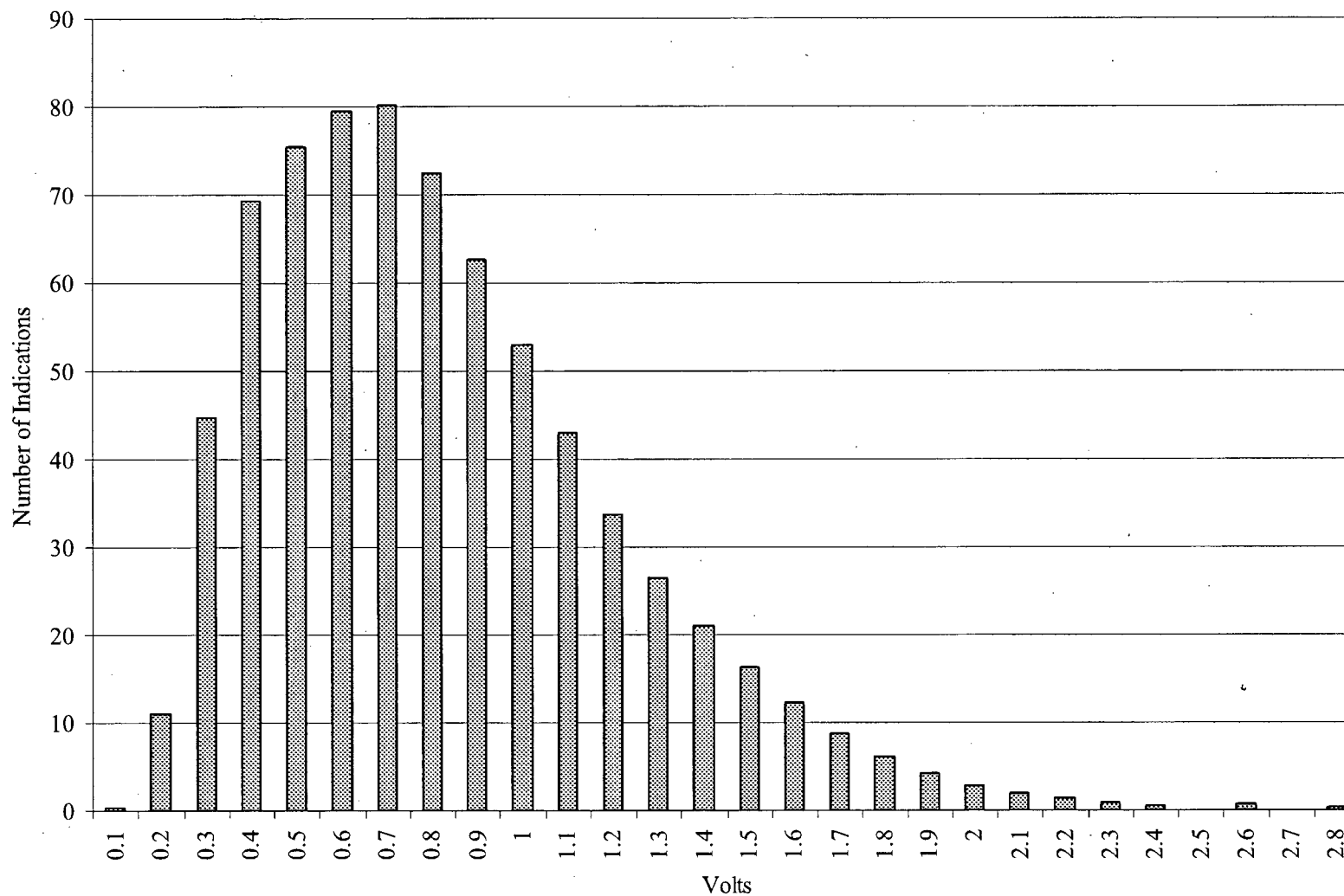


Figure 5-3: Voltage Distribution with NDE Uncertainty, SG 3



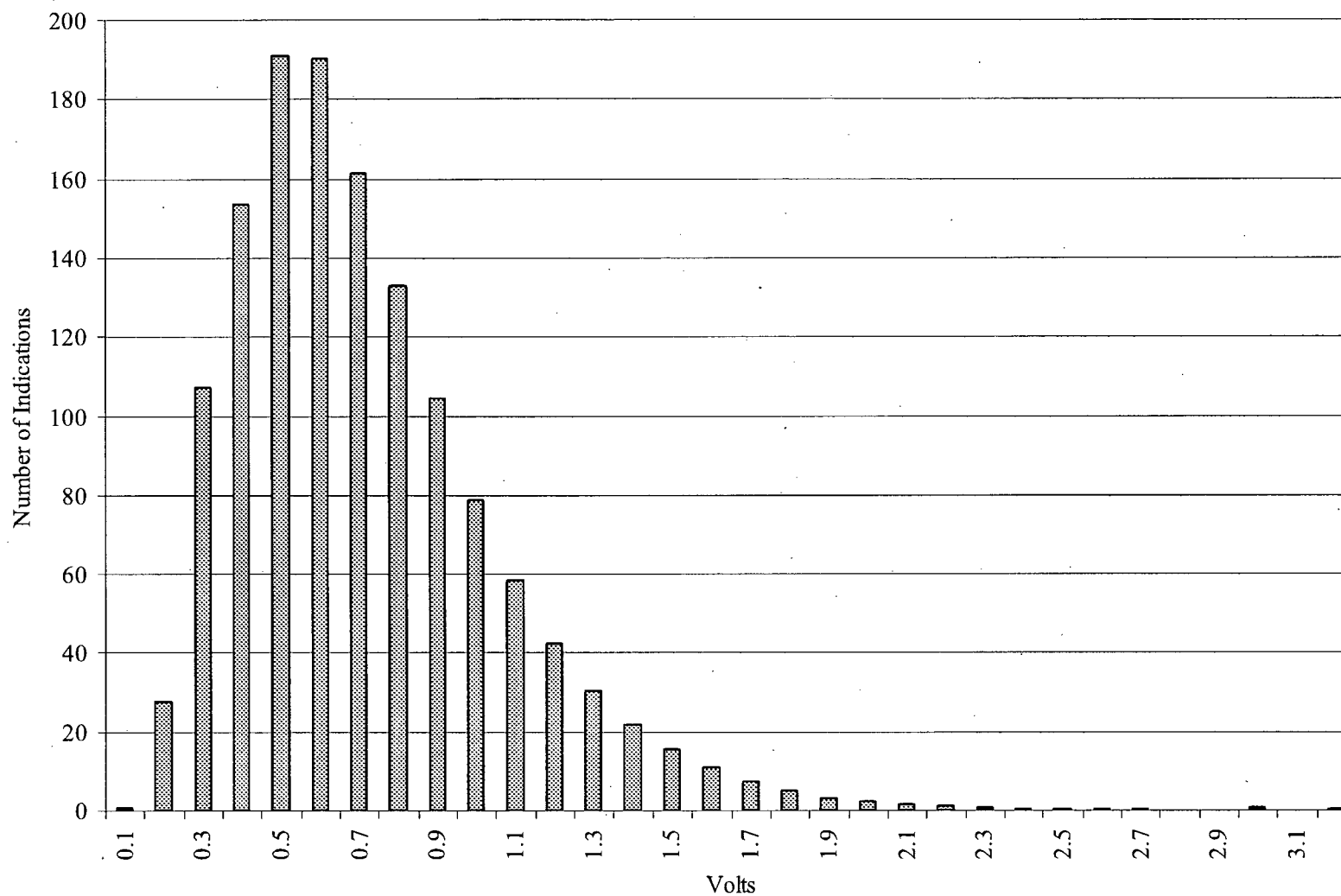


Figure 5-4: Voltage Distribution with NDE Uncertainty, SG 4

## 5.2 EOC-15 BURST PROBABILITIES AND LEAK RATES

The Monte Carlo analysis results for each of the steam generators based on the measured voltage distribution at EOC-15 are shown in Table 5-1. One-quarter-million Monte Carlo trials were performed for each steam generator. The leakage rate is the 95th percentile evaluated at 95% confidence. The burst probability is 95% confidence based on the number of trials. Table 5-2 presents the predicted results from Reference 5.

Table 5-1: Analysis Results for EOC-15 Voltage Distributions with NDE Uncertainty

SG	Number of Monte Carlo Trials	Number of Indications	Maximum Volts Measured	Burst Probability 95% conf.	95/95 SLB Leak Rate, gpm
1	250,000	540	1.69	$5.78 \times 10^{-5}$	0.121
2	250,000	602	1.84	$6.28 \times 10^{-5}$	0.143
3	250,000	729	2.41	$9.72 \times 10^{-5}$	0.294
4	250,000	1352	2.77	$1.30 \times 10^{-4}$	0.359

Table 5-2: Predicted Results

SG	Number of Monte Carlo Trials	Number of Indications	Maximum Volts Predicted	Burst Probability 95% conf.	95/95 SLB Leak Rate, gpm
1	250,000	723	3.7	$1.95 \times 10^{-4}$	0.409
2	250,000	841	3.7	$2.53 \times 10^{-4}$	0.489
3	250,000	949.7	4.0	$3.99 \times 10^{-4}$	0.839
4	250,000	2026.7	5.3	$6.32 \times 10^{-4}$	1.47

## 5.3 COMPARISON WITH ACCEPTANCE CRITERIA AND PREDICTION

All steam generators are well below the burst acceptance criterion of  $1.0 \times 10^{-2}$ , and the Sequoyah Unit 2 leakage criterion of 3.7 gpm per steam generator (Reference 2). The acceptance criteria on POB and leakage are satisfied with significant margin.

The predicted values for the probability of burst and leakage are conservative. They are based on the very conservative database provided in Reference 6. The number of indications and maximum voltages were conservatively predicted.

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The total number of measured indications for each steam generator was less than the predicted total number of indications. As Figure 3-1 through Figure 3-4 shows, the quantity of the smaller voltage indications was underestimated but the quantity of larger voltage indications was overestimated. This is attributable to the 0.6 POD (for all indications, regardless of size) that was used to develop the predictions. The larger voltage indications have a greater impact on the leakage prediction values and the burst probability, thus the leakage and burst values were overestimated.

## 6.0 OPERATIONAL ASSESSMENT: TUBE LEAK RATE AND BURST PROBABILITIES AT EOC-16

### 6.1 ANALYSIS APPROACH

The BOC-16 voltage distributions are developed, within the Cyclesim3.1 program, from the measured EOC-15 distribution by considering the POD and the indications that are removed from service. The EOC-16 voltage distribution is developed considering the NDE uncertainties and voltage growth during the cycle. The Cycle 14 growth rate was used in these projections, since it bound the Cycle 15 growth rate. The latest burst and leakage correlations, Reference 6, are used for the EOC-16 predictions. The burst probabilities and leak rates are computed using the computed EOC-16 voltage predictions to address the acceptance criteria at the end of the cycle.

### 6.2 POD

The POD used is the NRC accepted value of 0.6 for all voltages (Reference 1). The beginning of Cycle 16 (BOC-16) voltage distributions are shown in Table 6-1.

Table 6-1: BOC-16 Voltage Distributions

Volts	BOC-16 Voltage Distributions			
	SG 1	SG 2	SG 3	SG 4
0.1	0	5	0	0
0.2	30	35	13.33	32.33
0.3	95	83.33	73.33	183.33
0.4	113.33	128	116.67	250
0.5	107.33	136.67	125	328.67
0.6	101.67	135.67	127	342
0.7	109	120.67	144	259
0.8	86.67	91.67	123	228
0.9	64	66.67	98.33	186.67
1	58.33	55.33	97.33	116.67
1.1	29	36.67	71	100.33
1.2	32.67	33	48.33	65.67
1.3	27.33	20	48.33	43
1.4	10	18.33	23.33	28.33
1.5	16.67	10	39	30
1.6	5.67	5	18	19
1.7	3.33	3.33	7.33	5
1.8	0	10	6.67	3.33
1.9	0	0	4	5
2	0	0	5	3
2.1	0	0	1.33	0.67
2.2	0	0	0	0
2.3	0	0	0	0

Table 6-1: BOC-16 Voltage Distributions

Volts	BOC-16 Voltage Distributions			
	SG 1	SG 2	SG 3	SG 4
2.4	0	0	0.67	0
2.5	0	0	0	0.67
2.6	0	0	0	0
2.7	0	0	0	0
2.8	0	0	0	0.67
Total	889.99	994.34	1190.98	2231.34

### 6.3 VOLTAGE GROWTH RATES FOR CYCLE 16

The Cycle 14 and Cycle 15 bounding voltage growth rates, shown in Figure 3-16 and Figure 3-17, indicate that the Cycle 14 growth rate is the more conservative. The Cycle 14 growth rate is used in these projections.

### 6.4 PREDICTION OF VOLTAGE DISTRIBUTIONS AT EOC-16

The prediction of the EOC-16 voltage distributions is based on the BOC-16 indications and the composite growth rate. The length of Cycle 16 is established at 491 effective full power days (EFPD), Reference 2. The EOC-16 predicted voltage distributions (using the Cycle 14 growth rate) are shown in Table 6-2 and in Figure 6-1 through Figure 6-4.

Table 6-2: EOC-16 Voltage Distributions

Volts	EOC-16 Voltage Distributions			
	SG 1	SG 2	SG 3	SG 4
0.1	0.16	0.72	0.07	0.18
0.2	3.92	5.43	2.08	5.1
0.3	17.16	18.62	11.42	27.62
0.4	40.29	41.56	32.36	77.56
0.5	64.3	70.04	58.96	139.81
0.6	84.16	95.59	85.53	206.54
0.7	94.42	111.2	105.28	251.1
0.8	96.95	114.5	116.54	264.93
0.9	92.81	107.4	119.25	252.78
1	83.33	93.74	114.15	223.88
1.1	71.17	77.8	103.92	188.03
1.2	58.5	62.57	90.95	150.58
1.3	46.72	49.19	76.71	116.92
1.4	36.68	38.06	63.09	88.71
1.5	28.49	29.08	51.17	66.3
1.6	21.62	21.89	40.89	49
1.7	15.91	16.22	31.99	35.88

Table 6-2: EOC-16 Voltage Distributions

Volts	EOC-16 Voltage Distributions			
	SG 1	SG 2	SG 3	SG 4
1.8	11.32	11.87	24.43	25.87
1.9	7.76	8.62	18.21	18.27
2	5.09	6.16	13.23	12.67
2.1	3.2	4.33	9.38	8.63
2.2	1.95	2.98	6.52	5.79
2.3	1.14	1.97	4.46	3.83
2.4	0.67	1.28	2.99	2.52
2.5	0.41	0.83	2	1.7
2.6	0.29	0.55	1.36	1.24
2.7	0.21	0.38	0.93	0.94
2.8	0.15	0.27	0.63	0.76
2.9	0.12	0.19	0.44	0.6
3	0.09	0.14	0.32	0.47
3.1	0	0.11	0.23	0.38
3.2	0	0.02	0.19	0.35
3.3	0	0	0.19	0.38
3.4	0.7	0	0.14	0.38
3.5	0	0.7	0	0.37
3.6	0	0	0	0.29
3.7	0	0	0.7	0
3.8	0.3	0.3	0	0
3.9	0	0	0	0.7
4	0	0	0	0
4.1	0	0	0.3	0.3
4.2	0	0	0	0
Total	889.99	994.32	1191	2231.36

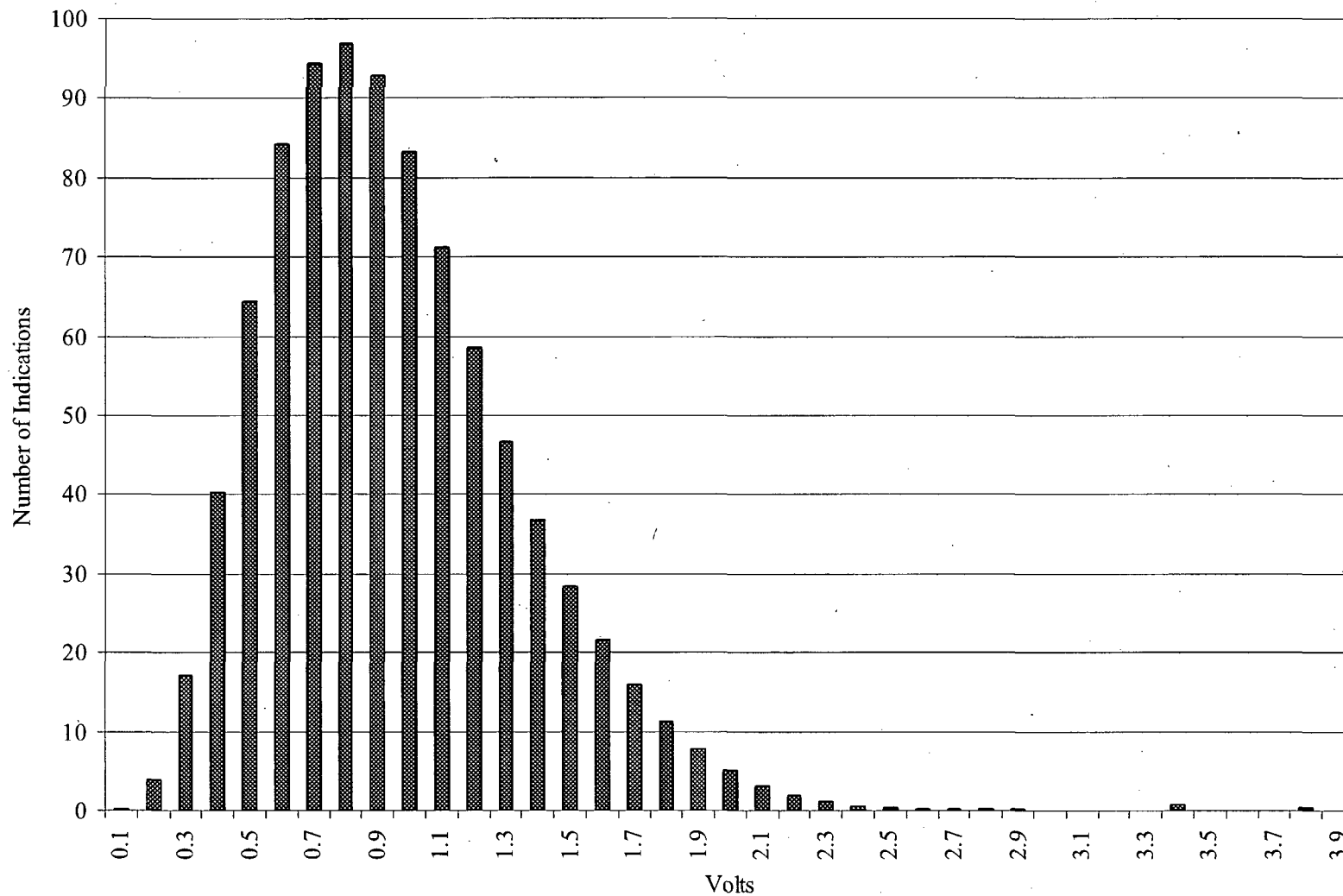


Figure 6-1: Predicted Voltage Distribution, SG1

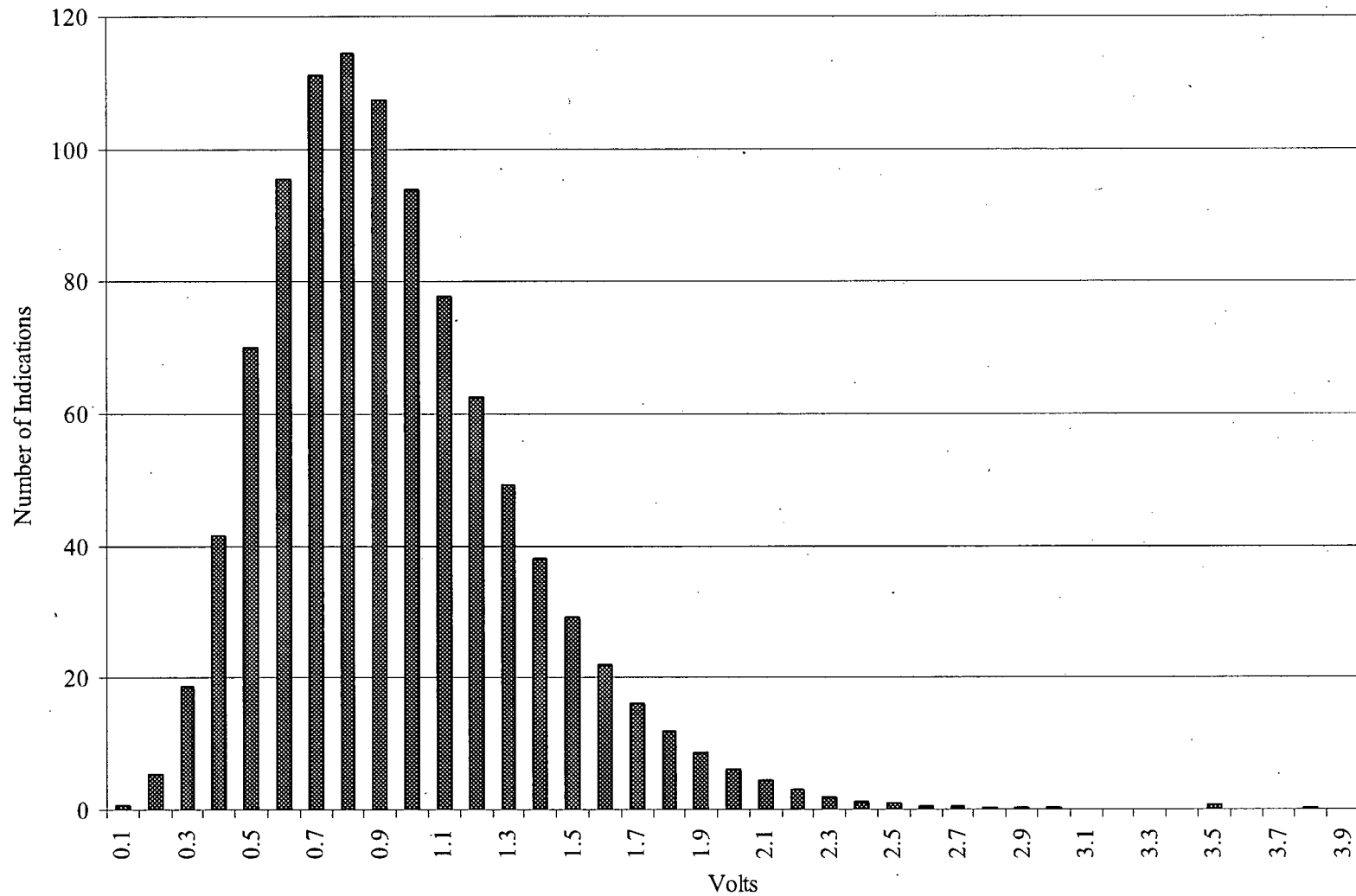


Figure 6-2: Predicted Voltage Distribution, SG2



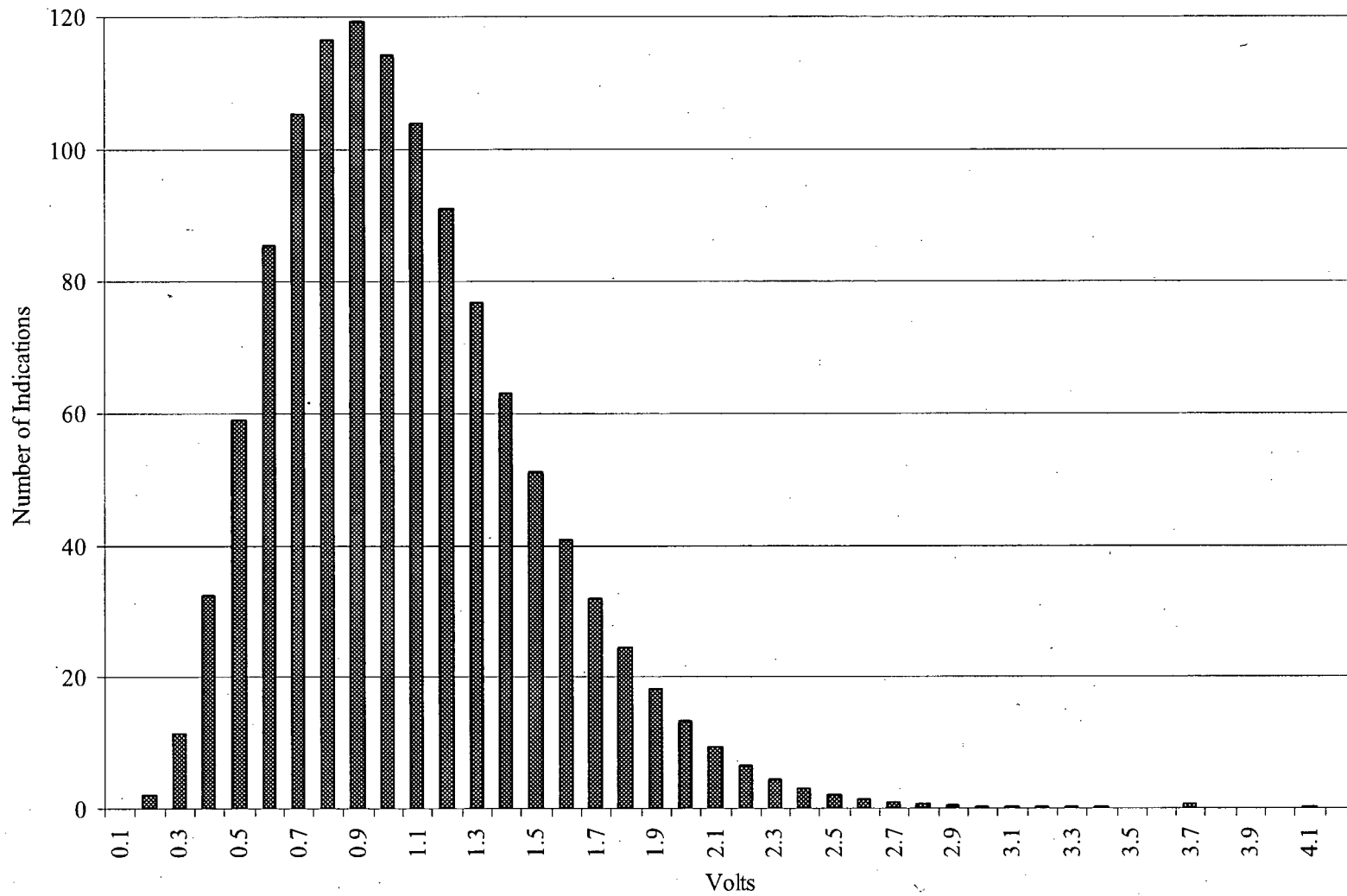


Figure 6-3: Predicted Voltage Distribution, SG3

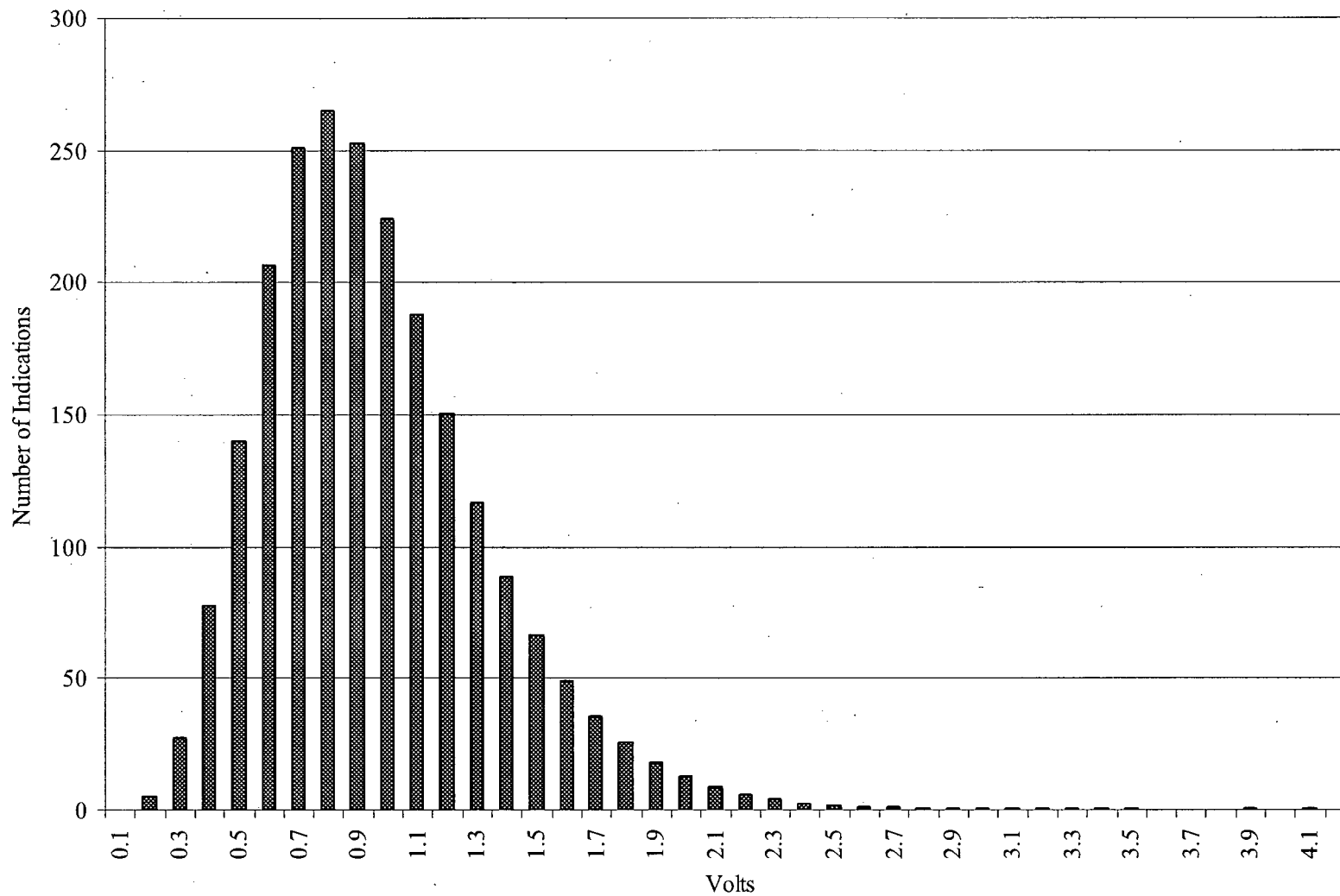


Figure 6-4: Predicted Voltage Distribution, SG4

## 6.5 PREDICTION OF TUBE LEAK RATES AND BURST PROBABILITIES AT EOC-16

The Monte Carlo analysis results for predicted EOC-16 voltage distributions are shown in Table 6-3. One-quarter-million Monte Carlo trials were performed for each steam generator in this operational assessment. The Cycle 14 growth rate was used for these predictions. The leakage rate is the 95<sup>th</sup> percentile evaluated at 95% confidence. The burst probability is 95% confidence based on the number of trials.

Table 6-3: EOC-16 Predicted Results

SG	Number of Monte Carlo Trials	Number of Indications	Maximum Volts*	Burst Probability 95% Confidence	95/95 SLB Leak Rate (gpm)
1	250,000	890	3.8	$2.53 \times 10^{-4}$	0.509
2	250,000	994.33	3.8	$2.08 \times 10^{-4}$	0.574
3	250,000	1191	4.1	$4.29 \times 10^{-4}$	0.985
4	250,000	2231.34	4.1	$4.55 \times 10^{-4}$	1.340

\* Voltage where tail is accumulated to 0.3 indications

## 6.6 COMPARISON WITH ACCEPTANCE CRITERIA

All steam generators are below the burst acceptance criterion of  $1.0 \times 10^{-2}$ , and the Sequoyah Unit 2 leakage criterion of 3.7 gpm (Reference 2).

## 7.0 REFERENCES

1. NRC Generic Letter 95-05, "Voltage-Based Repair Criteria for Westinghouse Steam Generator Tubes Affected by Outside Diameter Stress Corrosion Cracking," USNRC Office of Nuclear Reactor Regulation, August 3, 1995.
2. TVA Letter, K.R. Jones to E.D. Camp, "Sequoyah Nuclear Plant -U2C15 Steam Generator Tube Integrity Inspection," B38 080507 800, May 7, 2008.
3. WCAP-14277, Revision 1, "SLB Leak Rate and Tube Burst Probability Analysis Methods for ODSCC at TSP Intersections," Westinghouse Nuclear Services Division, December 1996.
4. WCAP-13990, "Sequoyah Units 1 and 2 Steam Generator Tube Plugging Criteria for Indications at Tube Support Plates," May 1994 - Section 4.1 - Refers to WCAP-12871, "J.M. Farley Units 1 and 2 SG Tube Plugging Criteria for ODSCC at Tube Support Plates," Revision 2, February 1992.
5. Westinghouse Report SG-CDME-07-7, Rev.0, "Condition Monitoring and Operational Assessment: GL 95-05 Alternate Repair Criterion End of Cycle 14, 90 Day Report, Sequoyah Unit 2," November 2007.
6. EPRI Report NP-7480-L, Addendum 6, 2004 Database Update, "Steam Generator Tubing Outside Diameter Stress Corrosion Cracking at Tube Support Plates Database for Alternate Repair Limits," October 2004.
7. Letter from B.W. Sheron, Nuclear Regulatory Commission, to A. Marion, Nuclear Energy Research Institute, February 9, 1996.
8. Letter from A. Marion, Nuclear Energy Research Institute, to B. Sheron, Nuclear Regulatory Commission, "Refining the Leak Rate Sampling Methodology for ODSCC ARC Applications (Generic Letter 95-05)," March 15, 2002.
9. Letter from W. Bateman, Nuclear Regulatory Commission, to A. Marion, Nuclear Energy Research Institute, "Refining the Leak Rate Sampling Methodology for Generic Letter 95-05 Voltage-Based Alternate Repair Criteria Application," March 27, 2002.
10. Westinghouse Letter LTR-SGDA-03-204, "Instructions for Running the Computer Code Cyclesim3.1," R. Keating, Westinghouse Nuclear Services Division, August 30, 2003.
11. PG&E Letter DCL-04-104, "Response to NRC Request for Additional Information Regarding License Amendment Request 04-01," August 18, 2004.

## Appendix A

### Indication List Sequoyah Unit 2 GL-95-05 End of Cycle 15 Sorted by EOC-15 Voltage

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
1	28	43	DSI	H02		1.69	1.35
1	24	21	DSI	H01		1.66	0.41
1	24	21	DSI	H02		1.58	1.15
1	3	17	DSI	H02		1.55	0.82
1	40	24	DSI	H02	Y	1.53	0.80
1	15	31	DSI	H01		1.52	1.71
1	3	15	DSI	H01		1.49	1.57
1	3	46	DSI	H01		1.49	1.08
1	23	10	DSI	H02		1.47	1.65
1	41	37	DSI	H02		1.47	1.15
1	43	59	DSI	H01		1.47	1.09
1	27	48	DSI	H02		1.44	1.38
1	35	23	DSI	H01		1.44	1.28
1	8	3	DSI	H02		1.43	1.29
1	22	48	DSI	H01		1.42	1.49
1	18	19	DSI	H02		1.41	1.24
1	40	51	DSI	H03		1.40	0.75
1	17	4	DSI	H01		1.39	1.44
1	23	7	DSI	H01		1.38	1.47
1	17	4	DSI	H03		1.34	1.41
1	12	3	DSI	H05		1.33	1.26
1	40	25	DSI	H02		1.31	0.74
1	33	50	DSI	H02		1.30	0.93
1	35	17	DSI	H02		1.30	1.16
1	17	33	DSI	H02		1.29	1.33
1	32	17	DSI	H02	Y	1.29	1.43
1	35	42	DSI	H02		1.29	1.55
1	26	49	DSI	H02		1.27	0.98
1	36	21	DSI	H03		1.27	INR
1	32	74	DSI	H03		1.26	1.21
1	27	55	DSI	H03		1.25	0.61
1	28	21	DSI	H01		1.25	0.96
1	29	55	DSI	H02		1.25	0.52
1	45	44	DSI	H03		1.25	1.52
1	23	23	DSI	H01		1.24	INR
1	29	52	DSI	H02		1.23	1.36

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
1	40	48	DSI	H03		1.23	1.38
1	9	92	DSI	H01		1.22	1.49
1	21	7	DSI	H01		1.21	0.97
1	11	93	DSI	H02		1.20	1.06
1	40	24	DSI	H01	Y	1.20	0.85
1	16	29	DSI	H02		1.18	1.08
1	21	87	DSI	H02		1.18	1.23
1	35	22	DSI	H01		1.18	0.91
1	27	52	DSI	H01		1.17	1.23
1	4	81	DSI	H02		1.16	1.09
1	31	54	DSI	H02		1.16	1.08
1	6	21	DSI	H01		1.15	1.08
1	42	37	DSI (I)	H07	Y	1.15	INR
1	26	54	DSI	H01		1.14	1.09
1	44	42	DSI	H02		1.14	0.87
1	44	57	DSI	H01		1.14	1.01
1	20	65	DSI	H02		1.13	1.22
1	28	56	DSI	H02		1.13	0.73
1	33	17	DSI (I)	H01	Y	1.13	INR
1	45	47	DSI	H03		1.13	0.85
1	5	7	DSI	H02		1.11	0.44
1	22	25	DSI	H01		1.11	1.20
1	28	11	DSI	H01		1.11	0.67
1	32	17	DSI (I)	H01	Y	1.11	INR
1	37	61	DSI	H02		1.11	1.12
1	6	2	DSI	H02		1.09	0.96
1	24	12	DSI	H01		1.09	1.12
1	3	17	DSI	H01		1.08	0.94
1	28	46	DSI	H02		1.08	0.81
1	5	81	DSI (I)	H05	Y	1.07	INR
1	14	5	DSI	H02		1.07	1.03
1	44	37	DSI	H02		1.06	1.50
1	18	24	DSI	H01		1.05	0.45
1	25	8	DSI	H02		1.05	INR
1	44	45	DSI	H02		1.05	0.99
1	3	34	DSI	H01		1.04	1.03
1	21	8	DSI	H02		1.04	1.01
1	30	82	DSI	H02		1.03	0.92
1	4	6	DSI	H02		1.02	0.80
1	10	70	DSI	H03		1.02	1.10
1	35	47	DSI	H02		1.02	0.58
1	32	53	DSI	H01		1.01	0.86
1	40	25	DSI	H01		1.01	0.66
1	27	60	DSI	H01		1.00	1.09

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
1	6	91	DSI	H02		0.99	0.80
1	24	9	DSI	H01		0.99	0.73
1	24	29	DSI	H02		0.99	0.69
1	45	47	DSI	H04		0.99	0.75
1	8	4	DSI	H02		0.98	1.15
1	11	58	DSI	H02		0.98	0.96
1	22	17	DSI	H01		0.98	0.82
1	32	54	DSI	H02		0.98	0.84
1	43	45	DSI	H02		0.98	0.76
1	8	3	DSI	H03		0.97	0.92
1	21	83	DSI	H02		0.97	0.42
1	25	38	DSI	H02		0.97	0.93
1	5	46	DSI	H01		0.96	0.90
1	9	39	DSI	H01		0.96	0.87
1	15	18	DSI	H01		0.96	0.96
1	32	52	DSI	H02		0.96	0.88
1	35	19	DSI	H01		0.96	1.10
1	35	22	DSI	H03		0.96	0.94
1	4	15	DSI	H01		0.95	0.94
1	10	75	DSI	H02		0.95	1.06
1	10	77	DSI	H04		0.94	1.38
1	22	9	DSI	H01		0.94	0.73
1	26	64	DSI	H01		0.94	1.05
1	40	26	DSI	H01		0.94	0.56
1	6	15	DSI	H02		0.93	0.66
1	13	9	DSI	H01		0.93	0.78
1	32	71	DSI	H03		0.93	0.58
1	39	46	DSI	H01		0.93	0.85
1	6	19	DSI	H03		0.92	1.00
1	19	66	DSI	H01		0.92	0.85
1	21	88	DSI	H02		0.92	0.80
1	4	11	DSI	H01		0.91	0.86
1	10	75	DSI	H01		0.91	0.68
1	28	50	DSI	H02		0.91	1.44
1	5	32	DSI	H01		0.90	0.55
1	10	70	DSI	H01		0.89	0.54
1	28	45	DSI	H02		0.89	1.08
1	35	30	DSI	H01		0.89	1.01
1	35	33	DSI	H02		0.89	0.85
1	30	50	DSI	H03		0.88	0.67
1	34	22	DSI	H02		0.88	0.78
1	11	3	DSI	H06		0.87	0.93
1	13	54	DSI	H03		0.87	0.82
1	24	21	DSI	H03		0.87	0.80

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
1	24	60	DSI	H01		0.87	0.81
1	32	73	DSI	H02		0.87	0.63
1	33	17	DSI	H03	Y	0.87	1.02
1	22	50	DSI	H02		0.86	0.75
1	28	77	DSI	H02		0.86	0.69
1	33	71	DSI	H02		0.86	0.76
1	6	2	DSI	H03		0.85	1.00
1	6	19	DSI	H01		0.85	0.66
1	36	62	DSI	H04		0.85	0.71
1	5	3	DSI	H03		0.84	0.79
1	5	17	DSI	H02		0.84	0.46
1	19	77	DSI	H02		0.84	0.86
1	21	8	DSI	H01		0.84	0.94
1	31	21	DSI	H02		0.84	0.67
1	3	15	DSI	H05		0.83	0.70
1	6	94	DSI	H03		0.83	0.82
1	9	41	DSI	H02		0.83	0.83
1	24	34	DSI	H01		0.83	0.54
1	28	46	DSI	H06		0.83	0.89
1	5	31	DSI	H02		0.82	0.65
1	6	4	DSI	H01		0.82	0.72
1	18	6	DSI	H01		0.82	0.69
1	27	25	DSI	H02		0.82	0.54
1	46	50	DSI	H03		0.82	0.87
1	4	39	DSI	H01		0.81	0.49
1	21	7	DSI	H02		0.81	0.65
1	21	78	DSI	H02		0.81	0.68
1	22	11	DSI	H03		0.81	0.71
1	24	29	DSI	H01		0.81	0.78
1	5	80	DSI	H02		0.80	0.67
1	8	3	DSI	H01		0.80	0.80
1	18	89	DSI	H05		0.80	0.76
1	26	68	DSI	H03		0.80	0.47
1	4	7	DSI	H02		0.79	0.76
1	30	49	DSI	H02		0.79	0.68
1	3	25	DSI	H02		0.78	0.76
1	3	26	DSI	H01		0.78	0.68
1	6	15	DSI	H01		0.78	0.82
1	8	12	DSI	H01		0.78	0.94
1	33	67	DSI	H03		0.78	0.44
1	24	17	DSI	H02		0.77	0.75
1	25	8	DSI	H01		0.77	0.82
1	35	19	DSI	H03		0.77	0.82
1	37	40	DSI	H01		0.77	0.74



SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
1	4	78	DSI	H02		0.76	0.48
1	24	25	DSI	H01		0.76	0.46
1	30	19	DSI	H03		0.76	0.71
1	19	8	DSI	H02		0.75	0.84
1	23	11	DSI	H02		0.75	0.61
1	32	48	DSI	H02		0.75	0.37
1	34	23	DSI	H03		0.75	0.49
1	36	35	DSI	H04		0.75	0.63
1	38	46	DSI	H04		0.75	0.52
1	38	65	DSI	H04		0.75	0.70
1	3	52	DSI	H01		0.74	0.53
1	10	78	DSI	H02		0.74	0.62
1	24	22	DSI	H01		0.74	0.50
1	29	50	DSI	H02		0.74	0.67
1	33	72	DSI	H02		0.74	0.39
1	2	10	DSI	H01		0.73	0.78
1	5	54	DSI	H03		0.73	0.83
1	8	6	DSI	H01		0.73	0.73
1	10	34	DSI	H01		0.73	0.54
1	18	57	DSI	H01		0.73	0.39
1	28	10	DSI	H02		0.73	0.69
1	28	31	DSI	H02		0.73	0.72
1	35	30	DSI	H02		0.73	0.79
1	40	26	DSI	H05		0.73	0.43
1	45	51	DSI	H02		0.73	1.07
1	2	8	DSI	H02		0.72	0.62
1	4	7	DSI	H01		0.72	0.80
1	5	35	DSI	H01		0.72	0.80
1	5	72	DSI	H03		0.72	0.71
1	6	1	DSI	H03		0.72	0.62
1	25	8	DSI	H03		0.72	INR
1	28	28	DSI	H04		0.72	0.48
1	36	62	DSI	H02		0.72	0.86
1	25	25	DSI	H01		0.71	0.77
1	32	42	DSI	H02		0.71	0.67
1	35	21	DSI	H01		0.71	0.50
1	42	40	DSI	H02		0.71	0.95
1	3	20	DSI	H02	Y	0.70	0.40
1	6	2	DSI	H01		0.70	0.68
1	13	89	DSI	H02		0.70	0.64
1	17	24	DSI	H01		0.70	0.47
1	17	77	DSI	H05		0.70	0.67
1	21	71	DSI	H02		0.70	0.73
1	26	22	DSI	H01		0.70	0.25

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
1	26	30	DSI	H02		0.70	0.60
1	28	17	DSI	H04		0.70	0.76
1	32	53	DSI	H03		0.70	0.96
1	32	57	DSI	H02		0.70	INR
1	6	3	DSI	H01		0.69	0.57
1	6	93	DSI	H02		0.69	0.81
1	28	12	DSI	H01		0.69	0.85
1	29	56	DSI	H03		0.69	0.73
1	30	82	DSI	H01		0.69	0.59
1	38	40	DSI	H01		0.69	0.78
1	3	70	DSI	H04		0.68	0.45
1	6	9	DSI	H01		0.68	0.55
1	9	25	DSI	H02		0.68	0.57
1	19	51	DSI	H01		0.68	0.88
1	20	51	DSI	H01		0.68	0.81
1	31	19	DSI	H02		0.68	0.57
1	3	27	DSI	H01		0.67	0.60
1	16	86	DSI	H04		0.67	0.62
1	22	10	DSI	H02		0.67	0.86
1	22	33	DSI	H02		0.67	0.83
1	22	46	DSI	H04		0.67	0.22
1	31	19	DSI	H03		0.67	0.55
1	39	48	DSI	H02		0.67	0.76
1	40	27	DSI	H02		0.67	0.51
1	5	32	DSI	H02		0.66	0.54
1	17	20	DSI	H01		0.66	0.61
1	19	8	DSI	H05		0.66	0.40
1	27	18	DSI	H02		0.66	0.79
1	28	16	DSI	H01		0.66	0.54
1	5	31	DSI	H01		0.65	0.35
1	5	33	DSI	H01		0.65	0.65
1	15	5	DSI	H02		0.65	0.83
1	36	62	DSI	H03		0.65	0.72
1	42	49	DSI	H02		0.65	0.86
1	45	37	DSI	H02		0.65	0.67
1	5	26	DSI	H02		0.64	0.71
1	9	19	DSI	H01		0.64	0.69
1	17	4	DSI	H04		0.64	1.08
1	20	32	DSI	H02		0.64	0.45
1	40	26	DSI	H04		0.64	0.61
1	5	34	DSI	H01		0.63	0.48
1	23	10	DSI	H01		0.63	0.64
1	40	25	DSI	H04		0.63	0.54
1	40	70	DSI	H03		0.63	0.60

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
1	7	3	DSI	H05		0.62	0.43
1	7	20	DSI	H01		0.62	0.50
1	9	43	DSI	H03		0.62	0.62
1	12	3	DSI	H06		0.62	0.80
1	19	45	DSI	H01		0.62	0.49
1	23	20	DSI	H02		0.62	0.51
1	28	10	DSI	H01		0.62	0.55
1	29	39	DSI	H02		0.62	0.51
1	35	19	DSI	H04		0.62	0.49
1	22	19	DSI	H01		0.61	0.60
1	22	67	DSI	H01		0.61	0.66
1	23	31	DSI	H01		0.61	0.47
1	25	77	DSI	H02		0.61	0.55
1	27	16	DSI	H02		0.61	0.49
1	35	19	DSI	H02		0.61	0.73
1	5	35	DSI	H03		0.60	0.60
1	8	50	DSI	H01		0.60	0.36
1	9	34	DSI	H04		0.60	0.68
1	35	17	DSI	H03		0.60	0.96
1	42	62	DSI	H01		0.60	0.62
1	43	46	DSI	H04		0.60	0.60
1	9	30	DSI	H02		0.59	0.87
1	18	8	DSI	H02		0.59	0.65
1	19	74	DSI	H02		0.59	0.27
1	31	68	DSI	H04		0.59	0.46
1	31	70	DSI	H04		0.59	0.49
1	44	56	DSI	H03		0.59	0.99
1	4	32	DSI	H01		0.58	0.58
1	5	43	DSI	H02		0.58	0.47
1	8	21	DSI	H02		0.58	0.62
1	20	9	DSI	H02		0.58	0.73
1	27	13	DSI	H02		0.58	0.47
1	35	21	DSI	H02		0.58	0.67
1	6	14	DSI	H01		0.57	0.82
1	6	26	DSI	H01		0.57	0.47
1	12	5	DSI	H04		0.57	0.39
1	22	47	DSI	H02		0.57	0.24
1	5	56	DSI	H02		0.56	0.58
1	13	10	DSI	H01		0.56	0.53
1	23	12	DSI	H02		0.56	0.60
1	28	26	DSI	H02		0.56	0.31
1	32	42	DSI	H01		0.56	0.75
1	32	79	DSI	H01		0.56	0.51
1	34	74	DSI	H04		0.56	0.35

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
1	36	25	DSI	H04		0.56	0.78
1	40	36	DSI	H03		0.56	0.60
1	11	88	DSI	H04		0.55	0.25
1	19	45	DSI	H02		0.55	0.52
1	27	31	DSI	H03		0.55	0.72
1	35	22	DSI	H02		0.55	0.50
1	45	47	DSI	H02		0.55	0.46
1	2	12	DSI	H02		0.54	0.60
1	17	4	DSI	H06		0.54	0.55
1	23	64	DSI	H03		0.54	0.32
1	26	17	DSI	H01		0.54	0.65
1	35	21	DSI	H04		0.54	0.45
1	3	1	DSI	H05		0.53	0.58
1	5	44	DSI	H02		0.53	0.34
1	10	84	DSI	H02		0.53	0.69
1	23	15	DSI	H01		0.53	0.49
1	24	73	DSI	H03		0.53	0.58
1	26	11	DSI	H01		0.53	0.43
1	27	19	DSI	H03		0.53	0.46
1	32	44	DSI	H04		0.53	0.62
1	38	63	DSI	H02		0.53	0.80
1	44	42	DSI	H05		0.53	0.56
1	3	47	DSI	H01		0.52	0.50
1	4	8	DSI	H03		0.52	0.39
1	6	29	DSI	H01		0.52	0.48
1	21	14	DSI	H01		0.52	0.40
1	32	59	DSI	H03		0.52	0.65
1	34	30	DSI	H03		0.52	0.33
1	39	36	DSI	H05		0.52	0.69
1	10	3	DSI	H06		0.51	0.97
1	14	4	DSI	H01		0.51	0.51
1	29	51	DSI	H02		0.51	1.64
1	28	27	DSI	H02		0.50	0.60
1	30	41	DSI	H02		0.50	0.69
1	30	82	DSI	H03		0.50	0.46
1	4	40	DSI	H02		0.49	0.63
1	5	36	DSI	H02		0.49	0.42
1	10	75	DSI	H06		0.49	0.65
1	11	3	DSI	H05		0.49	0.49
1	11	61	DSI	H02		0.49	0.51
1	18	17	DSI	H01		0.49	0.44
1	20	58	DSI	H01		0.49	0.58
1	22	28	DSI	H01		0.49	0.46
1	23	9	DSI	H02		0.49	0.50

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
1	35	30	DSI	H03		0.49	0.36
1	35	32	DSI	H01		0.49	0.53
1	43	38	DSI	H01		0.49	1.15
1	5	26	DSI	H01		0.48	0.47
1	16	30	DSI	H01		0.48	0.38
1	19	67	DSI	H01		0.48	0.24
1	21	74	DSI	H04		0.48	0.37
1	33	27	DSI	H04		0.48	0.50
1	33	43	DSI	H01		0.48	0.44
1	44	50	DSI	H02		0.48	0.71
1	5	72	DSI	H02		0.47	0.63
1	6	45	DSI	H01		0.47	0.49
1	12	4	DSI	C03		0.47	0.34
1	18	21	DSI	H01		0.47	0.37
1	35	44	DSI	H06		0.47	0.23
1	5	81	DSI	H03	Y	0.46	0.34
1	10	77	DSI	H01		0.46	0.70
1	11	4	DSI	H06		0.46	0.69
1	31	64	DSI	H03		0.46	0.42
1	32	49	DSI	H01		0.46	0.32
1	35	17	DSI	H06		0.46	0.43
1	5	11	DSI	H01		0.45	0.41
1	5	51	DSI	H01		0.45	0.32
1	25	37	DSI	H01		0.45	0.67
1	38	65	DSI	H02		0.45	0.49
1	46	41	DSI	H03		0.45	0.67
1	4	8	DSI	H01		0.44	0.62
1	14	5	DSI	H01		0.44	0.86
1	19	13	DSI	H01		0.44	0.48
1	24	21	DSI	H04		0.44	0.31
1	28	57	DSI	H02		0.44	0.37
1	33	67	DSI	H04		0.44	0.53
1	3	46	DSI	H02		0.43	0.58
1	17	4	DSI	H02		0.43	0.50
1	22	31	DSI	H01		0.43	0.30
1	23	14	DSI	H03		0.43	0.56
1	35	78	DSI	H01		0.43	0.36
1	36	42	DSI	H02		0.43	0.44
1	37	61	DSI	H03		0.43	0.49
1	10	77	DSI	H02		0.42	0.58
1	20	67	DSI	H01		0.42	0.42
1	24	15	DSI	H01		0.42	0.44
1	2	1	DSI	H03		0.41	0.41
1	2	13	DSI	H01		0.41	0.39

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
1	3	47	DSI	H02		0.41	0.30
1	7	10	DSI	H02		0.41	0.35
1	10	37	DSI	H01		0.41	0.96
1	20	12	DSI	H01		0.41	0.33
1	25	32	DSI	H01		0.41	0.32
1	26	20	DSI	H02		0.41	0.45
1	34	23	DSI	H01		0.41	0.36
1	38	24	DSI	H02		0.41	0.70
1	39	27	DSI	H04		0.41	0.52
1	5	50	DSI	H02		0.40	0.48
1	19	77	DSI	H03		0.40	0.34
1	27	48	DSI	H01		0.40	1.05
1	35	33	DSI	H03		0.40	0.56
1	38	51	DSI	H02		0.40	0.43
1	38	64	DSI	H03		0.40	0.47
1	44	40	DSI	H02		0.40	0.55
1	4	9	DSI	H03		0.39	0.41
1	5	7	DSI	H01		0.39	0.42
1	6	27	DSI	H02		0.39	0.40
1	6	54	DSI	H02		0.39	0.67
1	20	12	DSI	H02		0.39	0.40
1	22	21	DSI	H01		0.39	0.41
1	27	24	DSI	H02		0.39	0.39
1	2	18	DSI	H01		0.38	0.33
1	17	16	DSI	H01		0.38	0.48
1	22	14	DSI	H02		0.38	0.47
1	23	14	DSI	H02		0.38	0.40
1	27	21	DSI	H01		0.38	0.27
1	27	82	DSI	H02		0.38	0.65
1	36	54	DSI	H02		0.38	0.39
1	45	49	DSI	H02		0.38	0.68
1	5	24	DSI	H03		0.37	0.43
1	12	3	DSI	H01		0.37	0.48
1	21	76	DSI	H03		0.37	0.25
1	28	79	DSI	H01		0.37	0.44
1	31	82	DSI	H01		0.37	0.10
1	32	77	DSI	H05		0.37	0.34
1	36	47	DSI	H02		0.37	0.56
1	6	73	DSI	C04		0.36	0.36
1	9	28	DSI	H04		0.36	0.37
1	30	24	DSI	H06		0.36	0.44
1	31	33	DSI	H02		0.36	0.37
1	42	40	DSI	H07		0.36	0.39
1	4	9	DSI	H02		0.35	0.29

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
1	5	13	DSI	H02		0.35	0.37
1	12	24	DSI	H01		0.35	0.45
1	13	62	DSI	H05		0.35	0.32
1	28	12	DSI	H02		0.35	0.39
1	28	21	DSI	H03		0.35	0.26
1	31	56	DSI	H04		0.35	0.26
1	35	32	DSI	H03		0.35	0.27
1	35	35	DSI	H04		0.35	0.32
1	39	30	DSI	H03		0.35	0.33
1	6	35	DSI	H01		0.34	0.32
1	12	46	DSI	H02		0.34	0.64
1	23	12	DSI	H01		0.34	0.67
1	31	59	DSI	H04		0.34	0.28
1	37	63	DSI	C02		0.34	0.20
1	41	32	DSI	H03		0.34	0.32
1	3	42	DSI	H01		0.33	0.36
1	8	63	DSI	H04		0.33	0.27
1	24	46	DSI	H01		0.33	0.51
1	25	14	DSI	H02		0.33	0.53
1	27	58	DSI	H01		0.33	0.44
1	30	50	DSI	H01		0.33	0.47
1	33	75	DSI	H05		0.33	0.40
1	39	70	DSI	H03		0.33	0.27
1	42	33	DSI	H02		0.33	0.28
1	8	21	DSI	H04		0.32	0.34
1	19	68	DSI	H02		0.32	0.28
1	24	35	DSI	H02		0.32	0.36
1	44	33	DSI	H01		0.32	0.29
1	11	18	DSI	H02		0.31	0.25
1	22	68	DSI	H02		0.31	0.34
1	26	63	DSI	C03		0.31	0.33
1	28	79	DSI	H02		0.31	0.26
1	33	76	DSI	H01		0.31	0.38
1	4	40	DSI	H03		0.30	0.25
1	8	33	DSI	H01		0.30	0.34
1	15	82	DSI	C04		0.30	0.28
1	21	73	DSI	H01		0.30	0.45
1	2	8	DSI	H04		0.29	0.16
1	6	24	DSI	H03		0.29	0.22
1	12	6	DSI	H04		0.28	0.29
1	18	7	DSI	H03		0.28	0.45
1	18	21	DSI	H02		0.28	0.15
1	21	10	DSI	H01		0.28	0.48
1	28	40	DSI	H05		0.28	0.16

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
1	29	74	DSI	H05		0.28	0.20
1	30	62	DSI	H02		0.28	0.25
1	31	62	DSI	H03		0.28	0.41
1	32	65	DSI	H04		0.28	0.51
1	38	72	DSI	H02		0.28	0.10
1	40	32	DSI	H04		0.28	0.32
1	12	10	DSI	H01		0.27	0.40
1	13	42	DSI	H07		0.27	0.41
1	20	32	DSI	H01		0.27	0.35
1	32	40	DSI	H03		0.27	0.61
1	33	42	DSI	H02		0.27	0.32
1	44	40	DSI	H04		0.27	0.26
1	45	54	DSI	H03		0.27	INR
1	6	24	DSI	H01		0.26	0.29
1	12	43	DSI	H02		0.26	0.68
1	17	82	DSI	H05		0.26	0.18
1	30	75	DSI	H03		0.26	0.41
1	40	32	DSI	H05		0.26	0.14
1	9	32	DSI	H01		0.25	0.42
1	12	5	DSI	H06		0.25	0.39
1	14	10	DSI	H01		0.25	0.35
1	34	28	DSI	H01		0.25	0.36
1	37	60	DSI	H05		0.25	0.24
1	6	38	DSI	H01		0.24	0.29
1	13	62	DSI	H06		0.24	0.34
1	17	21	DSI	H02		0.24	0.21
1	23	9	DSI	H01		0.24	0.26
1	23	32	DSI	H04		0.24	0.33
1	39	40	DSI	H01		0.24	0.53
1	9	23	DSI	C04		0.23	0.28
1	12	44	DSI	H02		0.23	0.29
1	18	82	DSI	H02		0.23	0.28
1	20	10	DSI	H01		0.23	0.19
1	22	12	DSI	H01		0.23	0.28
1	22	72	DSI	H02		0.23	0.51
1	23	48	DSI	H03		0.23	0.19
1	40	34	DSI	H06		0.23	0.30
1	45	55	DSI	H03		0.23	0.33
1	4	17	DSI	H04		0.22	0.15
1	6	14	DSI	H02		0.22	0.26
1	26	86	DSI	H03		0.22	0.39
1	32	63	DSI	H03		0.22	0.52
1	18	6	DSI	H07		0.21	0.13
1	20	12	DSI	H04		0.21	0.40



SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
1	28	10	DSI	H05		0.21	0.30
1	28	28	DSI	H06		0.21	0.22
1	15	14	DSI	H03		0.20	0.10
1	22	12	DSI	H04		0.20	0.18
1	26	25	DSI	H04		0.20	0.18
1	37	32	DSI	H02		0.20	0.15
1	2	12	DSI	H03		0.19	0.30
1	25	14	DSI	H01		0.19	0.30
1	27	18	DSI	H01		0.19	0.35
1	27	21	DSI	H02		0.19	0.19
1	35	32	DSI	H04		0.19	0.38
1	43	40	DSI	H02		0.19	0.23
1	6	33	DSI	C02		0.17	0.17
1	12	48	DSI	H02		0.17	0.26
1	42	40	DSI	H01		0.17	0.34
1	21	8	DSI	H04		0.15	0.13
1	39	55	DSI	C04		0.15	0.21
1	39	30	DSI	H05		0.14	0.47
1	40	38	DSI	H02		0.14	0.18
1	37	32	DSI	H05		0.13	0.15
2	3	42	DSI	H02		1.84	1.73
2	27	68	DSI	H01		1.84	0.86
2	3	61	DSI	H02		1.80	1.02
2	10	18	DSI	C05		1.77	1.30
2	42	67	DSI	H06		1.76	1.57
2	30	74	DSI	H02		1.73	1.52
2	30	54	DSI	H01		1.63	1.39
2	23	73	DSI	H02		1.62	1.43
2	11	67	DSI	H02		1.59	1.68
2	15	89	DSI	H01		1.58	1.38
2	2	58	DSI	H02		1.54	1.61
2	6	43	DSI	H02		1.48	1.48
2	9	91	DSI	H01		1.47	1.34
2	30	81	DSI	H01		1.47	1.20
2	30	68	DSI	H02		1.45	1.47
2	4	59	DSI	H02		1.43	1.36
2	44	52	DSI	H02		1.41	1.55
2	14	86	DSI	H01		1.39	0.99
2	23	49	DSI	H01		1.39	1.44
2	30	55	DSI	H01		1.39	1.50
2	31	70	DSI	H01		1.37	1.29
2	36	71	DSI	H01		1.36	1.28
2	41	50	DSI	H01		1.36	0.88
2	4	36	DSI	H01		1.35	1.13

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
2	23	44	DSI	H01		1.34	1.32
2	42	66	DSI	H06		1.34	1.56
2	24	87	DSI	H01		1.31	0.98
2	33	31	DSI	H02		1.31	1.71
2	3	51	DSI	H02		1.28	1.15
2	23	86	DSI	H02		1.28	0.98
2	24	37	DSI	H04		1.28	1.14
2	15	40	DSI	H02		1.27	1.16
2	18	11	DSI	H01		1.27	1.50
2	31	70	DSI	H02		1.27	0.78
2	2	82	DSI	H04		1.26	1.45
2	38	45	DSI	H02		1.24	1.41
2	22	58	DSI	H01		1.23	1.40
2	32	20	DSI	H01		1.23	1.81
2	2	66	DSI	H02		1.21	1.15
2	38	26	DSI	H02		1.21	1.00
2	8	88	DSI	H01		1.20	1.18
2	27	84	DSI	H01		1.20	0.96
2	8	44	DSI	H01		1.18	1.17
2	10	31	DSI	H02	Y	1.18	1.23
2	30	55	DSI	H02		1.18	1.07
2	36	64	DSI	H01		1.18	0.93
2	20	52	DSI	H01		1.17	1.09
2	41	37	DSI	H02		1.17	0.96
2	2	45	DSI	H02		1.16	1.08
2	32	20	DSI	H02		1.16	1.35
2	39	38	DSI	H02		1.15	1.10
2	8	3	DSI	H01	Y	1.14	1.07
2	8	51	DSI	H01		1.14	0.89
2	11	67	DSI	H03		1.14	0.71
2	31	38	DSI (I)	H01	Y	1.13	INR
2	7	48	DSI	H01		1.12	0.81
2	7	57	DSI	H02		1.12	1.07
2	18	7	DSI	H02		1.12	1.61
2	24	43	DSI	H02		1.12	1.03
2	4	56	DSI	H02		1.11	1.08
2	4	91	DSI	H01		1.11	1.30
2	7	58	DSI	H01		1.10	0.78
2	30	76	DSI	H02		1.10	1.12
2	43	43	DSI	H02		1.10	1.00
2	5	93	DSI	H01		1.09	0.93
2	9	33	DSI	H01		1.09	1.26
2	26	59	DSI	H01		1.09	1.10
2	21	20	DSI (I)	H01		1.08	INR

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
2	15	87	DSI	H01		1.07	0.76
2	41	54	DSI	H02		1.07	0.82
2	11	75	DSI	H02		1.06	0.84
2	15	5	DSI	H01		1.06	1.08
2	16	11	DSI	H02		1.05	0.74
2	44	44	DSI	H02		1.05	0.97
2	36	42	DSI	H02		1.04	0.70
2	36	75	DSI	H02		1.04	0.89
2	41	43	DSI	H02		1.04	1.02
2	37	20	DSI	H01		1.03	1.11
2	44	35	DSI	H03		1.03	0.52
2	7	44	DSI	H01		1.02	0.94
2	28	17	DSI	H02		1.02	0.98
2	12	6	DSI	H02		1.01	1.17
2	29	21	DSI	H02		1.01	0.89
2	2	47	DSI	H02		1.00	0.99
2	2	87	DSI	H01		1.00	1.20
2	4	26	DSI	H02		1.00	0.95
2	6	48	DSI	H01		1.00	0.73
2	36	71	DSI	H02		0.99	0.80
2	41	54	DSI	H03		0.99	0.82
2	5	65	DSI	H02		0.98	0.76
2	11	65	DSI	H02	Y	0.98	0.70
2	25	56	DSI	H03		0.98	1.00
2	28	73	DSI	H03		0.98	0.89
2	30	79	DSI	H02		0.98	0.89
2	41	65	DSI	H05		0.98	0.72
2	2	58	DSI	H01		0.97	1.17
2	27	84	DSI	H02		0.97	0.90
2	29	16	DSI	H02		0.97	0.80
2	38	49	DSI	H02		0.97	0.83
2	4	54	DSI	H02		0.96	0.82
2	10	4	DSI	H02		0.96	0.77
2	30	81	DSI	H04		0.96	0.93
2	32	17	DSI	H05		0.96	1.17
2	40	41	DSI	H03		0.96	0.83
2	4	71	DSI	H01	Y	0.95	1.41
2	8	45	DSI	H02		0.95	0.71
2	10	89	DSI	H02		0.95	0.66
2	15	36	DSI	H01		0.95	0.76
2	26	18	DSI	H01		0.95	0.99
2	2	73	DSI	H02		0.94	0.85
2	8	47	DSI	H02		0.94	0.67
2	14	84	DSI	H01		0.93	0.78

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
2	3	76	DSI	H02		0.92	0.82
2	13	68	DSI	H01	Y	0.92	0.91
2	13	89	DSI	H01		0.92	0.68
2	20	56	DSI	H02		0.92	0.84
2	2	85	DSI	H01		0.91	0.98
2	7	8	DSI	H01		0.91	0.82
2	2	43	DSI	H02		0.90	0.98
2	5	92	DSI	H01		0.90	0.93
2	43	50	DSI	H01		0.90	0.90
2	2	61	DSI	H02		0.89	1.32
2	4	94	DSI	H02		0.89	0.97
2	10	71	DSI	H02		0.89	0.76
2	12	44	DSI	H02		0.89	0.82
2	20	33	DSI	H03		0.88	0.82
2	30	83	DSI	H01		0.88	0.81
2	42	66	DSI	H02		0.88	0.65
2	3	66	DSI	H02		0.86	0.65
2	11	21	DSI	H01		0.86	0.94
2	2	88	DSI	H02		0.85	1.19
2	6	4	DSI	H04		0.85	0.86
2	7	43	DSI	H02		0.85	0.67
2	19	22	DSI	H02		0.85	0.68
2	29	20	DSI	H02		0.85	0.85
2	1	76	DSI	H01		0.84	0.79
2	3	31	DSI	H02		0.84	0.44
2	21	87	DSI	H01		0.84	0.42
2	38	32	DSI	H03		0.84	0.67
2	2	76	DSI	H02		0.83	0.87
2	2	83	DSI	H04		0.83	0.91
2	3	72	DSI	H01		0.83	0.82
2	20	49	DSI	H02		0.83	0.89
2	27	53	DSI	H02		0.83	0.95
2	37	43	DSI	H02		0.83	INR
2	4	45	DSI	H02		0.82	0.92
2	4	92	DSI	H02		0.82	0.86
2	15	87	DSI	H02		0.82	0.50
2	30	83	DSI	H02		0.82	0.59
2	43	52	DSI	H02		0.82	0.28
2	2	56	DSI	H01		0.81	0.86
2	5	93	DSI	H02		0.81	0.95
2	18	52	DSI	H01		0.81	0.83
2	22	16	DSI	H02		0.81	0.64
2	24	65	DSI	H02		0.81	0.83
2	30	21	DSI	H02		0.81	0.84

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
2	31	48	DSI	H01		0.81	0.41
2	32	23	DSI	H02		0.81	0.69
2	20	43	DSI	H05		0.80	0.82
2	38	45	DSI	H03		0.80	0.79
2	45	51	DSI	H02		0.80	0.94
2	45	52	DSI	H02		0.80	0.63
2	8	61	DSI	H02		0.79	0.86
2	17	86	DSI	H03		0.79	0.44
2	23	85	DSI	H02		0.79	0.34
2	41	67	DSI	H01		0.79	0.53
2	4	59	DSI	H01		0.78	1.12
2	6	79	DSI	H02		0.78	1.17
2	7	89	DSI	H02		0.78	0.81
2	18	56	DSI	H02		0.78	0.76
2	22	30	DSI	H02		0.78	0.68
2	31	74	DSI	H02		0.78	0.70
2	6	94	DSI	H01		0.77	0.66
2	8	71	DSI	H01		0.77	0.62
2	23	17	DSI	H02		0.77	0.66
2	29	17	DSI	H02		0.77	0.99
2	30	17	DSI	H02		0.77	0.45
2	31	43	DSI	H03		0.77	0.71
2	2	94	DSI	H02		0.76	0.81
2	7	91	DSI	H02		0.76	0.48
2	9	41	DSI	H05		0.76	0.67
2	21	9	DSI	H02		0.76	1.04
2	8	69	DSI	H01		0.75	0.58
2	28	12	DSI	H02		0.75	0.64
2	30	54	DSI	H02		0.75	INR
2	41	41	DSI	H05		0.75	INR
2	2	61	DSI	H01		0.74	INR
2	5	60	DSI	H01		0.74	0.68
2	9	72	DSI	H02		0.74	0.59
2	28	79	DSI	H02		0.74	0.83
2	30	22	DSI	H02		0.74	1.18
2	37	55	DSI	H02		0.74	0.78
2	38	33	DSI	H02		0.74	1.11
2	39	62	DSI	H02		0.74	0.92
2	41	55	DSI	H03		0.74	0.71
2	4	50	DSI	H01		0.73	0.83
2	7	4	DSI	H02		0.73	0.92
2	9	41	DSI	H02		0.73	0.30
2	15	49	DSI	H02		0.73	0.86
2	18	65	DSI	H01		0.73	0.64

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
2	25	66	DSI	H03		0.73	0.74
2	3	37	DSI	H02		0.72	1.03
2	5	91	DSI	H01		0.72	1.04
2	7	32	DSI	H03		0.72	0.82
2	8	64	DSI	H02		0.72	0.58
2	12	85	DSI	H02		0.72	0.57
2	15	49	DSI	H01		0.72	0.61
2	22	73	DSI	H04		0.72	0.78
2	31	47	DSI	H02		0.72	0.61
2	7	2	DSI	H04		0.71	0.86
2	8	91	DSI	H01		0.71	0.57
2	24	60	DSI	H02		0.71	0.88
2	40	40	DSI	H03		0.71	0.76
2	2	55	DSI	H02		0.70	0.85
2	2	83	DSI	H01		0.70	0.68
2	3	49	DSI	H02		0.70	0.73
2	29	16	DSI	H01		0.70	1.26
2	40	29	DSI	H02		0.70	0.59
2	42	34	DSI	H02		0.70	0.65
2	43	38	DSI	H02		0.70	0.70
2	2	50	DSI	H02		0.69	0.68
2	4	45	DSI	H04		0.69	0.33
2	6	90	DSI	H02		0.69	0.40
2	16	60	DSI	H01		0.69	0.78
2	23	22	DSI	H02		0.69	0.92
2	30	77	DSI	H03		0.69	0.74
2	32	61	DSI	H02		0.69	0.70
2	7	4	DSI	H01		0.68	0.70
2	8	51	DSI	H02		0.68	0.56
2	20	49	DSI	H01		0.68	0.72
2	27	68	DSI	H02		0.68	0.74
2	31	66	DSI	H02		0.68	0.58
2	43	52	DSI	H01		0.68	0.69
2	4	64	DSI	H01		0.67	0.72
2	17	41	DSI	H01		0.67	0.62
2	21	69	DSI	H01		0.67	0.48
2	39	58	DSI	H04		0.67	0.63
2	41	41	DSI	H04		0.67	0.86
2	2	46	DSI	H02		0.66	0.67
2	3	91	DSI	H03		0.66	0.51
2	6	3	DSI	H02		0.66	0.64
2	6	41	DSI	H01		0.66	0.69
2	24	50	DSI	H01		0.66	0.69
2	29	61	DSI	H02		0.66	0.65

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
2	30	77	DSI	H02		0.66	0.63
2	39	70	DSI	H02		0.66	0.44
2	43	54	DSI	H04		0.66	0.69
2	2	94	DSI	H01		0.65	0.62
2	3	72	DSI	H03		0.65	0.80
2	4	92	DSI	H04		0.65	0.46
2	6	21	DSI	H02		0.65	0.65
2	6	39	DSI	H02		0.65	0.93
2	9	53	DSI	H01		0.65	0.46
2	11	63	DSI	H02		0.65	0.32
2	13	68	DSI	H02	Y	0.65	0.53
2	18	22	DSI	H01		0.65	0.60
2	19	69	DSI	H01		0.65	0.61
2	22	69	DSI	H01		0.65	0.66
2	25	43	DSI	H02		0.65	0.50
2	25	75	DSI	H02		0.65	INR
2	2	88	DSI	H01		0.64	0.87
2	5	6	DSI	H02		0.64	0.75
2	24	37	DSI	H02		0.64	0.77
2	26	59	DSI	H02		0.64	0.68
2	35	44	DSI	H02		0.64	0.65
2	42	61	DSI	H01		0.64	0.92
2	2	63	DSI	H04		0.63	0.60
2	8	90	DSI	H01		0.63	0.55
2	9	40	DSI	H02		0.63	0.58
2	9	48	DSI	H02		0.63	0.67
2	20	57	DSI	H01		0.63	0.59
2	20	62	DSI	H01		0.63	0.67
2	29	67	DSI	H01		0.63	0.59
2	31	67	DSI	H02		0.63	0.61
2	5	59	DSI	H02		0.62	0.53
2	6	38	DSI	H02		0.62	0.72
2	6	84	DSI	H02		0.62	0.87
2	14	90	DSI	H01		0.62	0.46
2	14	90	DSI	H02		0.62	0.69
2	30	19	DSI	H04		0.62	0.74
2	40	64	DSI	H02		0.62	0.71
2	3	88	DSI	H02		0.61	0.59
2	10	31	DSI	H04	Y	0.61	0.48
2	32	20	DSI	H05		0.61	0.67
2	41	50	DSI	H02		0.61	0.61
2	45	54	DSI	H02		0.61	0.61
2	2	73	DSI	H01		0.60	0.67
2	4	61	DSI	H04		0.60	0.78

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
2	4	94	DSI	H01		0.60	0.51
2	8	38	DSI	H02		0.60	0.71
2	25	72	DSI	H04		0.60	0.54
2	29	16	DSI	H05		0.60	0.55
2	36	74	DSI	H02		0.60	0.59
2	41	34	DSI	H02		0.60	1.37
2	3	30	DSI	H02		0.59	0.63
2	4	92	DSI	H05		0.59	0.62
2	5	81	DSI	H01		0.59	0.55
2	11	88	DSI	H02		0.59	0.57
2	20	58	DSI	H01		0.59	0.74
2	26	17	DSI	H02		0.59	0.74
2	30	16	DSI	H02		0.59	0.89
2	45	42	DSI	H02		0.59	0.46
2	3	42	DSI	H04		0.58	0.60
2	7	21	DSI	H01		0.58	0.48
2	15	32	DSI	H04		0.58	0.56
2	17	49	DSI	H01		0.58	0.40
2	25	72	DSI	H02		0.58	0.63
2	29	79	DSI	H02		0.58	0.34
2	32	32	DSI	H01		0.58	0.46
2	39	55	DSI	H02		0.58	0.81
2	40	37	DSI	H02		0.58	0.53
2	23	44	DSI	H05		0.57	0.66
2	28	12	DSI	H01		0.57	0.53
2	38	33	DSI	H03		0.57	0.50
2	2	84	DSI	H01		0.56	0.57
2	2	85	DSI	H02		0.56	0.94
2	4	27	DSI	H02		0.56	0.70
2	24	38	DSI	H02		0.56	1.50
2	35	61	DSI	H03		0.56	0.54
2	43	65	DSI	C01		0.56	0.48
2	6	16	DSI	H02		0.55	0.47
2	7	91	DSI	H01		0.55	0.30
2	14	47	DSI	H02		0.55	0.50
2	20	65	DSI	H01		0.55	0.50
2	24	87	DSI	H04		0.55	0.36
2	36	33	DSI	H02		0.55	0.68
2	41	37	DSI	H01		0.55	0.45
2	42	50	DSI	H02		0.55	0.63
2	8	47	DSI	C03		0.54	0.48
2	10	31	DSI	H01	Y	0.54	0.78
2	21	61	DSI	H01		0.54	0.62
2	21	64	DSI	H01		0.54	0.40



SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
2	29	12	DSI	H01		0.54	0.47
2	31	25	DSI	H02		0.54	0.47
2	37	23	DSI	C01		0.54	0.52
2	37	26	DSI	H02		0.54	0.44
2	41	43	DSI	H03		0.54	0.62
2	43	53	DSI	H04		0.54	0.50
2	44	39	DSI	H02		0.54	0.53
2	6	40	DSI	H01		0.53	0.75
2	8	60	DSI	H01		0.53	0.49
2	9	32	DSI	H01		0.53	0.60
2	20	89	DSI	H02		0.53	0.39
2	28	69	DSI	H02		0.53	0.54
2	30	20	DSI	H01		0.53	1.05
2	31	38	DSI	H04	Y	0.53	0.41
2	32	21	DSI	H02		0.53	0.59
2	38	32	DSI	H02		0.53	0.69
2	45	56	DSI	C01		0.53	0.45
2	2	37	DSI	H02		0.52	0.55
2	2	88	DSI	H03		0.52	0.38
2	2	94	DSI	H03		0.52	0.56
2	5	94	DSI	H01		0.52	0.63
2	10	46	DSI	H01		0.52	0.18
2	12	59	DSI	H02		0.52	0.55
2	16	80	DSI	H03		0.52	0.34
2	35	58	DSI	H04		0.52	0.59
2	38	26	DSI	H01		0.52	0.71
2	39	25	DSI	H02		0.52	0.66
2	39	37	DSI	H02		0.52	0.55
2	2	48	DSI	H01		0.51	0.45
2	7	9	DSI	H02		0.51	0.43
2	7	27	DSI	H01		0.51	0.61
2	13	21	DSI	H02		0.51	0.37
2	19	63	DSI	H02		0.51	0.56
2	25	22	DSI	H02		0.51	1.09
2	28	66	DSI	H03		0.51	0.56
2	31	39	DSI	H02		0.51	0.34
2	5	65	DSI	H01		0.50	0.50
2	7	7	DSI	H04		0.50	0.72
2	7	10	DSI	H02		0.50	0.52
2	8	87	DSI	H01		0.50	0.30
2	11	57	DSI	H01		0.50	0.69
2	20	44	DSI	H02		0.50	0.44
2	43	47	DSI	H02		0.50	0.42
2	44	40	DSI	C01		0.50	0.46

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
2	45	39	DSI	H04		0.50	0.42
2	45	48	DSI	H02		0.50	0.45
2	4	92	DSI	H03		0.49	0.41
2	6	1	DSI	H02		0.49	0.85
2	8	11	DSI	H02		0.49	0.27
2	8	70	DSI	H03		0.49	0.53
2	8	90	DSI	H02		0.49	0.37
2	9	24	DSI	H06		0.49	0.47
2	19	22	DSI	H01		0.49	0.44
2	20	10	DSI	H03		0.49	0.30
2	22	34	DSI	H01		0.49	0.52
2	28	14	DSI	H01		0.49	0.53
2	2	57	DSI	H02		0.48	0.72
2	7	13	DSI	H02		0.48	0.57
2	7	49	DSI	H02		0.48	0.83
2	8	61	DSI	H04		0.48	0.35
2	23	55	DSI	H01		0.48	0.47
2	31	67	DSI	H03		0.48	0.45
2	35	59	DSI	H02		0.48	0.42
2	36	31	DSI	H02		0.48	0.54
2	40	48	DSI	H05		0.48	0.41
2	41	41	DSI	H01		0.48	0.39
2	41	69	DSI	H01		0.48	0.60
2	7	17	DSI	H01		0.47	0.53
2	28	60	DSI	H02		0.47	0.66
2	30	82	DSI	H02		0.47	0.53
2	38	25	DSI	H02		0.47	0.44
2	38	33	DSI	H04		0.47	0.64
2	42	37	DSI	H05		0.47	0.39
2	3	16	DSI	H02		0.46	0.41
2	6	32	DSI	H04		0.46	0.46
2	7	71	DSI	H02		0.46	0.37
2	20	22	DSI	H03		0.46	0.32
2	22	36	DSI	H04		0.46	0.57
2	23	11	DSI	C03		0.46	0.49
2	23	70	DSI	H03		0.46	0.56
2	38	28	DSI	H02		0.46	0.35
2	5	66	DSI	H02		0.45	0.48
2	16	48	DSI	H05		0.45	0.40
2	19	61	DSI	H01		0.45	0.57
2	23	85	DSI	H01		0.45	0.34
2	32	26	DSI	H01		0.45	0.55
2	40	57	DSI	H02		0.45	0.46
2	43	44	DSI	H03		0.45	0.63

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
2	45	55	DSI	C01		0.45	0.29
2	2	55	DSI	H01		0.44	0.48
2	5	44	DSI	H04		0.44	0.32
2	7	67	DSI	H02		0.44	0.38
2	9	34	DSI	H02		0.44	0.53
2	9	36	DSI	H02		0.44	0.48
2	42	43	DSI	H03		0.44	0.50
2	2	62	DSI	H02		0.43	0.70
2	7	12	DSI	H04		0.43	0.48
2	12	59	DSI	H01		0.43	0.43
2	12	90	DSI	H02		0.43	0.67
2	14	11	DSI	H02		0.43	0.47
2	21	20	DSI	H02		0.43	0.46
2	29	11	DSI	C01		0.43	0.59
2	39	59	DSI	H02		0.43	0.46
2	6	43	DSI	C01		0.42	0.54
2	9	14	DSI	H02		0.42	0.42
2	29	61	DSI	H03		0.42	0.45
2	30	45	DSI	H03		0.42	0.27
2	30	70	DSI	H01		0.42	0.36
2	31	16	DSI	H02		0.42	0.72
2	42	51	DSI	H02		0.42	0.36
2	43	50	DSI	H02		0.42	0.46
2	2	49	DSI	H02		0.41	0.50
2	6	70	DSI	H02		0.41	0.37
2	24	8	DSI	H01		0.41	0.54
2	26	59	DSI	H03		0.41	0.46
2	28	25	DSI	H02		0.41	0.37
2	40	60	DSI	H02		0.41	0.43
2	46	50	DSI	H04		0.41	0.45
2	6	57	DSI	H02		0.40	0.55
2	8	13	DSI	H02		0.40	0.43
2	16	33	DSI	H03		0.40	0.40
2	30	55	DSI	H05		0.40	0.41
2	35	45	DSI	H02		0.40	0.42
2	35	75	DSI	H01		0.40	0.18
2	41	36	DSI	H03		0.40	0.37
2	43	49	DSI	H02		0.40	0.34
2	4	45	DSI	C05		0.39	0.47
2	5	1	DSI	H02		0.39	0.56
2	7	13	DSI	H01		0.39	0.53
2	2	22	DSI	H02		0.38	0.38
2	2	83	DSI	H02		0.38	0.28
2	2	85	DSI	H04		0.38	0.52

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
2	3	62	DSI	H02		0.38	0.33
2	9	22	DSI	H02		0.38	0.58
2	10	32	DSI	H05		0.38	0.50
2	14	18	DSI	H02		0.38	0.34
2	18	14	DSI	H02		0.38	0.52
2	19	15	DSI	H02		0.38	0.41
2	33	31	DSI	H04		0.38	0.34
2	39	25	DSI	H01		0.38	0.39
2	2	77	DSI	H01		0.37	0.28
2	2	90	DSI	H01		0.37	0.33
2	4	1	DSI	H02		0.37	0.45
2	5	5	DSI	H04		0.37	0.59
2	7	13	DSI	H05		0.37	0.40
2	38	59	DSI	H02		0.37	0.44
2	5	94	DSI	C04		0.36	0.57
2	8	62	DSI	H07		0.36	0.14
2	11	25	DSI	H01		0.36	0.42
2	12	60	DSI	C02		0.36	0.29
2	20	33	DSI	H04		0.36	0.31
2	20	64	DSI	H05	Y	0.36	0.50
2	34	73	DSI	H01		0.36	0.36
2	35	53	DSI	H01		0.36	0.33
2	38	74	DSI	H04		0.36	0.56
2	39	31	DSI	H02		0.36	0.49
2	41	54	DSI	H01		0.36	0.35
2	43	43	DSI	H03		0.36	0.29
2	7	1	DSI	H05		0.35	0.50
2	7	68	DSI	H01		0.35	0.62
2	7	72	DSI	H01		0.35	0.62
2	9	57	DSI	H02		0.35	0.72
2	9	69	DSI	H02		0.35	0.40
2	11	65	DSI	H04	Y	0.35	0.26
2	25	73	DSI	H04		0.35	0.19
2	36	63	DSI	H02		0.35	0.37
2	44	37	DSI	H02		0.35	0.28
2	44	45	DSI	H02		0.35	0.31
2	2	14	DSI	H02		0.34	0.47
2	3	49	DSI	H01		0.34	0.31
2	4	92	DSI	H01		0.34	0.56
2	6	4	DSI	H01		0.34	0.36
2	7	68	DSI	H02		0.34	0.51
2	30	46	DSI	C02		0.34	0.20
2	36	42	DSI	H01		0.34	0.30
2	41	39	DSI	H02		0.34	0.26

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
2	44	48	DSI	H02		0.34	0.44
2	3	92	DSI	H01		0.33	0.38
2	17	77	DSI	C04		0.33	0.37
2	23	25	DSI	H01		0.33	0.86
2	31	74	DSI	H01		0.33	0.34
2	4	50	DSI	H02		0.32	0.30
2	5	28	DSI	C04		0.32	0.35
2	7	21	DSI	H04		0.32	0.37
2	9	4	DSI	H04		0.32	0.31
2	35	42	DSI	H02		0.32	0.24
2	38	53	DSI	H02		0.32	0.39
2	38	66	DSI	H01		0.32	0.39
2	45	39	DSI	H03		0.32	0.30
2	45	52	DSI	H01		0.32	0.28
2	2	88	DSI	H06		0.31	0.69
2	9	91	DSI	H02		0.31	0.43
2	10	13	DSI	H02		0.31	0.24
2	13	15	DSI	H04		0.31	0.40
2	23	74	DSI	H03		0.31	0.32
2	26	11	DSI	C04		0.31	0.31
2	3	31	DSI	H01		0.30	0.38
2	6	24	DSI	H02		0.30	0.32
2	6	68	DSI	H06		0.30	0.37
2	8	82	DSI	H04		0.30	0.47
2	16	89	DSI	H01		0.30	0.17
2	25	68	DSI	H03		0.30	0.42
2	29	79	DSI	H01		0.30	0.28
2	32	63	DSI	H01		0.30	0.30
2	35	72	DSI	H03		0.30	0.39
2	43	52	DSI	H03		0.30	0.20
2	2	2	DSI	H02		0.29	0.60
2	4	1	DSI	H04		0.29	0.44
2	7	9	DSI	H04		0.29	0.61
2	8	42	DSI	H02		0.29	0.28
2	8	93	DSI	H01		0.29	0.28
2	9	23	DSI	H02		0.29	0.41
2	22	68	DSI	H02		0.29	0.33
2	32	19	DSI	C01		0.29	0.35
2	40	64	DSI	H01		0.29	0.46
2	2	47	DSI	H05		0.28	0.43
2	2	70	DSI	H02		0.28	0.69
2	9	50	DSI	H04		0.28	0.31
2	35	51	DSI	H02		0.28	0.31
2	37	66	DSI	H01		0.28	0.31

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
2	40	31	DSI	H02		0.28	0.23
2	6	13	DSI	H04		0.27	0.34
2	8	68	DSI	H02		0.27	0.38
2	22	37	DSI	H05		0.27	0.44
2	2	30	DSI	H02		0.26	0.40
2	2	42	DSI	H01		0.26	0.41
2	4	22	DSI	H02		0.26	0.27
2	5	27	DSI	H01		0.26	0.39
2	9	72	DSI	H01		0.26	0.30
2	3	86	DSI	H03		0.25	0.19
2	6	55	DSI	C02		0.25	0.25
2	12	51	DSI	C03		0.25	0.32
2	13	9	DSI	C05		0.25	0.26
2	17	70	DSI	H05		0.25	0.17
2	39	40	DSI	H02		0.25	0.25
2	3	17	DSI	H02		0.24	0.27
2	25	9	DSI	H07		0.24	0.57
2	41	37	DSI	H04		0.24	0.32
2	46	50	DSI	H02		0.23	0.23
2	4	51	DSI	H02		0.22	0.24
2	6	40	DSI	H05		0.22	0.59
2	7	21	DSI	H05		0.22	0.42
2	34	72	DSI	H01		0.22	0.23
2	39	70	DSI	H04		0.22	0.22
2	2	49	DSI	H01		0.21	0.25
2	24	12	DSI	C04		0.21	0.34
2	4	57	DSI	H04		0.20	0.25
2	29	45	DSI	H02		0.20	0.21
2	33	17	DSI	C01		0.20	0.16
2	19	68	DSI	H02		0.19	0.18
2	23	72	DSI	H02		0.19	0.19
2	33	50	DSI	H07		0.19	0.20
2	2	2	DSI	H05		0.18	0.25
2	5	60	DSI	H04		0.18	0.43
2	11	25	DSI	H02		0.18	0.39
2	40	42	DSI	C02		0.18	0.18
2	7	38	DSI	H02		0.17	0.23
2	8	34	DSI	H03		0.16	0.21
2	9	29	DSI	H04		0.16	0.31
2	3	12	DSI	H04		0.15	0.21
2	40	55	DSI	C02		0.15	0.17
2	45	49	DSI	H03		0.15	0.28
2	4	77	DSI	H06		0.14	0.23
2	7	42	DSI	H04		0.14	0.12

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
2	19	70	DSI	H02		0.14	0.20
2	4	57	DSI	H01		0.12	0.47
2	4	29	DSI	H04		0.11	0.30
2	6	90	DSI	H04		0.10	0.45
2	3	38	DSI	H05		0.09	0.17
2	6	12	DSI	H06		0.09	0.09
3	34	22	DSI	H01	Y	2.41	1.77
3	44	59	DSI	H02	Y	2.07	1.91
3	39	26	DSI	H01	Y	2.02	1.02
3	1	74	DSI	C01		1.97	2.17
3	32	23	DSI	H01		1.94	1.99
3	36	24	DSI	H01		1.93	1.41
3	20	35	DSI	H02	Y	1.90	1.86
3	34	25	DSI	H01		1.87	1.44
3	14	39	DSI	H01		1.83	1.87
3	20	32	DSI	H01		1.79	1.93
3	24	16	DSI	H01		1.75	1.28
3	30	23	DSI	H01		1.75	1.56
3	20	29	DSI	H01		1.73	1.82
3	25	8	DSI	H01		1.69	1.94
3	36	25	DSI	H02		1.69	1.36
3	25	16	DSI (I)	H01	Y	1.68	INR
3	23	13	DSI	H01		1.62	1.57
3	5	1	DSI	H02		1.61	1.52
3	15	6	DSI (I)	H05	Y	1.60	INR
3	9	48	DSI	H01		1.58	1.60
3	20	28	DSI	H01	Y	1.54	1.51
3	7	71	DSI	H02		1.53	1.52
3	7	93	DSI	H02		1.53	1.45
3	31	28	DSI	H01		1.53	1.85
3	43	36	DSI	H01		1.53	1.33
3	28	17	DSI (I)	H01		1.52	INR
3	13	24	DSI	H01		1.51	1.29
3	24	29	DSI	H01		1.51	1.64
3	28	26	DSI	H01		1.51	1.64
3	34	72	DSI	H02		1.51	1.32
3	15	35	DSI	H03		1.50	0.98
3	21	24	DSI	H01		1.50	1.41
3	25	18	DSI	H01		1.49	1.22
3	35	21	DSI	H01		1.49	1.35
3	26	28	DSI	H01		1.48	1.81
3	44	33	DSI	H01		1.48	1.32
3	17	87	DSI	H02		1.47	0.96
3	22	28	DSI	H02		1.47	1.48

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
3	3	10	DSI	H01		1.46	1.65
3	11	36	DSI	H01		1.45	1.66
3	15	3	DSI	H01		1.45	1.21
3	20	30	DSI	H01		1.44	1.00
3	13	47	DSI	H02		1.43	1.41
3	20	12	DSI	H01		1.43	1.42
3	9	51	DSI	H01		1.42	1.22
3	15	29	DSI	H01		1.42	1.12
3	15	41	DSI	H02		1.42	1.52
3	20	31	DSI	H01		1.42	1.31
3	22	52	DSI	H01		1.42	1.23
3	23	38	DSI	H01		1.42	1.54
3	39	26	DSI	H02	Y	1.42	1.17
3	1	79	DSI	H03		1.41	1.47
3	22	26	DSI	H02		1.41	1.05
3	25	26	DSI	H02		1.41	1.19
3	20	47	DSI	H01		1.39	1.29
3	26	35	DSI	H01		1.39	1.22
3	11	17	DSI	H02		1.38	1.30
3	20	85	DSI	H03		1.37	0.30
3	26	14	DSI	H01		1.37	1.90
3	27	30	DSI	H02		1.36	1.29
3	20	26	DSI	H02		1.35	1.04
3	27	26	DSI	H02		1.35	1.31
3	34	34	DSI	H02		1.35	1.33
3	20	19	DSI	H01		1.34	1.34
3	4	46	DSI	H01		1.33	0.54
3	23	30	DSI	H01		1.33	1.25
3	36	33	DSI	H03		1.32	1.20
3	44	58	DSI	H01		1.32	1.46
3	24	12	DSI	H01		1.30	1.58
3	3	29	DSI	H01		1.29	1.45
3	11	37	DSI	H01		1.29	1.38
3	32	28	DSI	H01		1.29	1.86
3	39	48	DSI	H02		1.29	0.55
3	11	11	DSI	H01		1.28	1.03
3	15	15	DSI	H01		1.28	0.84
3	26	9	DSI	H01		1.27	1.23
3	22	20	DSI	H01		1.26	1.14
3	15	30	DSI	H01		1.25	0.99
3	31	32	DSI	H01		1.25	1.14
3	3	5	DSI	H01		1.24	1.38
3	24	21	DSI	H03		1.24	0.81
3	29	14	DSI	H01		1.24	1.17



SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
3	31	76	DSI	H01		1.24	0.96
3	7	72	DSI	H02		1.23	1.16
3	32	34	DSI	H03		1.23	1.34
3	22	38	DSI	H01		1.22	0.86
3	30	46	DSI	H02		1.22	1.30
3	31	32	DSI	H02		1.22	1.15
3	37	28	DSI	H02		1.22	1.27
3	4	25	DSI	H02		1.21	1.06
3	15	82	DSI	H01		1.21	0.60
3	16	21	DSI	H01		1.21	1.24
3	17	6	DSI	H02		1.21	0.85
3	20	14	DSI	H04		1.21	1.20
3	26	17	DSI	H02		1.21	1.01
3	26	81	DSI	H02		1.21	1.15
3	39	71	DSI	H02		1.21	0.86
3	9	5	DSI	H01		1.20	1.01
3	13	7	DSI	H01		1.20	0.85
3	26	16	DSI	H02		1.20	1.02
3	30	50	DSI	H01		1.20	1.05
3	34	61	DSI	H04		1.19	0.48
3	5	1	DSI	H01		1.18	1.22
3	24	19	DSI	H01		1.17	0.97
3	27	35	DSI	H01		1.17	1.05
3	30	33	DSI	H03		1.17	1.13
3	40	25	DSI	H02		1.17	1.19
3	19	13	DSI	H01		1.16	1.01
3	27	15	DSI	H01		1.16	0.87
3	5	4	DSI	H01		1.15	1.08
3	20	86	DSI	H01		1.15	1.07
3	32	42	DSI	H02		1.15	1.05
3	24	21	DSI	H05		1.14	1.26
3	31	28	DSI	H04		1.14	0.96
3	44	52	DSI	H02		1.14	1.01
3	4	60	DSI	H02		1.13	1.19
3	7	14	DSI	H01		1.13	1.12
3	10	14	DSI	H01		1.13	0.78
3	13	29	DSI	H02		1.13	1.05
3	17	53	DSI	H01		1.13	1.24
3	33	49	DSI	H01		1.13	0.57
3	14	18	DSI	H01		1.12	1.12
3	16	4	DSI	H01		1.12	1.81
3	16	40	DSI	H01		1.12	0.99
3	38	25	DSI	H01		1.12	0.49
3	19	22	DSI	H01		1.11	0.92

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
3	9	8	DSI	H01		1.09	1.24
3	24	21	DSI	H01		1.09	1.16
3	30	19	DSI	H01		1.09	0.83
3	35	18	DSI	H04		1.09	1.09
3	35	47	DSI	H02		1.09	0.94
3	35	58	DSI	H02		1.09	1.15
3	38	32	DSI	H03		1.09	0.71
3	9	48	DSI	H02		1.08	0.99
3	26	28	DSI	H03		1.08	0.40
3	38	25	DSI	H03		1.08	0.90
3	1	74	DSI	H04		1.07	0.42
3	7	70	DSI	H01		1.07	0.76
3	20	39	DSI	H01		1.07	1.30
3	20	80	DSI	H03		1.07	0.94
3	30	46	DSI	H03		1.07	0.79
3	32	34	DSI	H01		1.07	1.01
3	2	35	DSI	H01		1.06	1.00
3	19	34	DSI	H02		1.06	1.29
3	26	24	DSI	H01		1.06	0.42
3	27	69	DSI	H04		1.06	0.70
3	6	38	DSI	H01		1.05	1.15
3	7	1	DSI	H02		1.05	1.11
3	33	36	DSI	H02		1.05	1.12
3	7	92	DSI	H03		1.04	0.88
3	15	6	DSI	H01	Y	1.04	0.97
3	15	43	DSI	H01		1.04	0.34
3	23	9	DSI	H01		1.04	1.00
3	24	35	DSI	H01		1.04	0.80
3	33	67	DSI	H04		1.04	0.69
3	39	30	DSI	H01		1.04	1.29
3	44	58	DSI	H03		1.04	0.19
3	1	79	DSI	H02		1.03	0.76
3	6	30	DSI	H01		1.03	1.22
3	15	18	DSI	H02		1.03	1.44
3	15	29	DSI	H02		1.03	0.84
3	20	35	DSI	H01	Y	1.03	0.46
3	26	12	DSI	H03		1.03	0.81
3	8	7	DSI	H03		1.02	1.01
3	13	12	DSI	H01		1.02	1.04
3	13	55	DSI	H02		1.02	0.23
3	15	3	DSI	H02		1.02	1.09
3	16	41	DSI	H01		1.02	0.67
3	20	28	DSI (I)	H04	Y	1.02	INR
3	39	26	DSI	H03	Y	1.02	0.89

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
3	6	1	DSI	H01		1.01	0.89
3	13	36	DSI	H01		1.00	1.19
3	26	22	DSI	H04		1.00	0.56
3	33	40	DSI	H01		1.00	1.07
3	18	35	DSI	H01		0.99	1.26
3	21	20	DSI	H02		0.99	0.70
3	6	10	DSI	H01		0.98	1.25
3	7	93	DSI	H03		0.98	0.46
3	13	3	DSI	H01		0.98	1.07
3	21	89	DSI	H03		0.98	0.94
3	26	20	DSI	H02		0.98	0.79
3	26	38	DSI	H02		0.98	0.87
3	30	72	DSI	H02		0.98	0.45
3	36	31	DSI	H03		0.98	0.94
3	37	31	DSI	H01		0.98	1.04
3	8	63	DSI	H02	Y	0.97	1.07
3	9	21	DSI	H02		0.97	1.05
3	28	27	DSI	H03		0.97	0.82
3	31	76	DSI	H02		0.97	0.63
3	36	38	DSI	H02		0.97	0.88
3	5	10	DSI	H01		0.96	0.89
3	16	54	DSI	H01		0.96	1.00
3	18	38	DSI	H01		0.96	1.03
3	19	10	DSI	H01		0.96	0.71
3	21	81	DSI	H02		0.96	0.72
3	21	88	DSI	H01		0.96	0.27
3	25	33	DSI	H03		0.96	1.45
3	38	44	DSI	H02		0.96	1.03
3	5	22	DSI	H01		0.95	1.06
3	12	35	DSI	H01		0.95	1.07
3	15	33	DSI	H03		0.95	0.64
3	19	13	DSI	H03		0.95	0.89
3	26	10	DSI	H01		0.95	0.95
3	28	32	DSI	H02		0.95	INR
3	32	78	DSI	H01		0.95	0.70
3	34	27	DSI	H03		0.95	0.94
3	38	62	DSI	H02		0.95	0.88
3	3	23	DSI	H01		0.94	0.88
3	23	26	DSI	H02		0.94	1.39
3	38	40	DSI	H03		0.94	1.19
3	4	39	DSI	H01		0.93	0.32
3	8	50	DSI	H01		0.93	0.47
3	24	23	DSI	H03		0.93	0.85
3	24	25	DSI	H01		0.93	0.96

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
3	27	36	DSI	H02		0.93	0.69
3	29	34	DSI	H02		0.93	0.79
3	29	35	DSI	H01		0.93	0.66
3	31	14	DSI	H03		0.93	1.17
3	9	15	DSI	H03		0.92	0.97
3	17	47	DSI	H01		0.92	0.95
3	25	30	DSI	H03		0.92	0.79
3	27	63	DSI	H03		0.92	0.99
3	32	77	DSI	H01		0.92	0.51
3	34	61	DSI	H03		0.92	0.66
3	4	55	DSI	H02		0.91	1.01
3	9	41	DSI	H01		0.91	0.94
3	16	22	DSI	H01		0.91	0.76
3	19	12	DSI	H02		0.91	0.89
3	37	42	DSI	H03		0.91	0.93
3	45	39	DSI	C04		0.91	0.72
3	2	39	DSI	H02		0.90	0.79
3	7	64	DSI	H01		0.90	0.82
3	7	91	DSI	H02		0.90	0.90
3	18	37	DSI	H01		0.90	1.02
3	33	36	DSI	H03		0.90	0.75
3	37	31	DSI	H03		0.90	0.89
3	17	37	DSI	H01		0.89	0.89
3	25	49	DSI	H01		0.89	0.82
3	37	26	DSI	H02		0.89	1.05
3	43	59	DSI	H01		0.89	0.74
3	7	71	DSI	H01		0.88	0.89
3	9	11	DSI	H01		0.88	1.21
3	15	16	DSI	H01		0.88	1.04
3	22	29	DSI	H01		0.88	0.91
3	27	27	DSI	H01		0.88	0.74
3	28	84	DSI	H01		0.88	0.77
3	38	29	DSI	H01		0.88	0.80
3	8	49	DSI	H01		0.87	0.81
3	9	14	DSI	H01		0.87	1.06
3	3	94	DSI	H02		0.86	0.82
3	6	37	DSI	H02		0.86	0.74
3	7	56	DSI	H02		0.86	1.01
3	12	35	DSI	H03		0.86	0.83
3	13	30	DSI	H01		0.86	1.08
3	15	26	DSI	H01		0.86	0.93
3	23	32	DSI	H02		0.86	0.69
3	33	25	DSI	H04		0.86	0.95
3	34	25	DSI	H04		0.86	0.61

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
3	38	42	DSI	H03		0.86	0.90
3	8	18	DSI	H03		0.85	0.78
3	27	24	DSI	H02		0.85	0.68
3	33	25	DSI	H01		0.85	0.67
3	12	35	DSI	H02		0.84	0.54
3	13	34	DSI	H01		0.84	0.72
3	14	4	DSI	H01		0.84	0.71
3	27	60	DSI	H02		0.84	0.65
3	35	47	DSI	H03		0.84	0.71
3	36	42	DSI	H04		0.84	0.97
3	38	58	DSI	H02		0.84	1.71
3	40	24	DSI	H02		0.84	1.03
3	11	6	DSI	H01		0.83	0.77
3	16	4	DSI	H02		0.83	0.88
3	20	6	DSI	H01		0.83	0.70
3	20	68	DSI	H03		0.83	0.91
3	25	14	DSI	H04		0.83	0.90
3	26	23	DSI	H01		0.83	0.87
3	27	79	DSI	H02		0.83	0.68
3	28	28	DSI	H01		0.83	0.45
3	4	51	DSI	H01		0.82	0.94
3	7	42	DSI	H04		0.82	0.95
3	32	34	DSI	H02		0.82	0.61
3	2	39	DSI	H03		0.81	0.66
3	17	15	DSI	H01		0.81	0.52
3	18	32	DSI	H01		0.81	0.90
3	25	19	DSI	H02		0.81	0.84
3	30	42	DSI	H03		0.81	0.63
3	31	65	DSI	H02		0.81	0.84
3	32	33	DSI	H02		0.81	1.29
3	36	53	DSI	H03		0.81	1.07
3	3	34	DSI	H01		0.80	1.02
3	4	34	DSI	H01		0.80	0.91
3	36	31	DSI	H05		0.80	1.12
3	7	25	DSI	H01		0.79	0.88
3	17	22	DSI	H01		0.79	1.01
3	18	21	DSI	H01		0.79	0.84
3	31	30	DSI	H01		0.79	0.76
3	41	30	DSI	H01		0.79	0.86
3	3	1	DSI	H01		0.78	0.75
3	8	19	DSI	H02		0.78	0.89
3	9	23	DSI	H03		0.78	1.06
3	18	18	DSI	H01		0.78	0.93
3	32	29	DSI	H01		0.78	0.95

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
3	33	49	DSI	H03		0.78	0.64
3	1	84	DSI	H03		0.77	0.96
3	3	5	DSI	H05		0.77	0.80
3	4	50	DSI	H01		0.77	0.61
3	13	24	DSI	H02		0.77	0.70
3	14	52	DSI	H01		0.77	0.83
3	19	39	DSI	H01		0.77	0.58
3	24	13	DSI	H02		0.77	0.59
3	30	42	DSI	H02		0.77	0.48
3	38	32	DSI	H06		0.77	0.70
3	9	12	DSI	H01		0.76	0.90
3	14	41	DSI	H01		0.76	0.58
3	15	6	DSI	H02	Y	0.76	0.76
3	19	5	DSI	H03		0.76	0.79
3	27	18	DSI	H01		0.76	0.79
3	27	63	DSI	H02		0.76	0.62
3	36	40	DSI	H04		0.76	0.70
3	37	67	DSI	H02		0.76	0.56
3	2	30	DSI	H01		0.75	1.01
3	5	4	DSI	H03		0.75	0.87
3	8	69	DSI	H01		0.75	1.02
3	14	21	DSI	H02		0.75	0.74
3	14	26	DSI	H06		0.75	0.86
3	15	3	DSI	H03		0.75	0.97
3	16	25	DSI	H01		0.75	1.06
3	17	13	DSI	H01		0.75	0.64
3	21	20	DSI	H03		0.75	0.71
3	25	21	DSI	H01		0.75	0.32
3	32	54	DSI	H01		0.75	0.82
3	46	52	DSI	H03		0.75	0.54
3	5	12	DSI	H01		0.74	0.85
3	11	46	DSI	H02		0.74	1.08
3	14	16	DSI	H05		0.74	0.96
3	14	39	DSI	H04		0.74	0.82
3	16	21	DSI	H02		0.74	0.71
3	20	37	DSI	H01		0.74	0.96
3	20	71	DSI	H03		0.74	0.38
3	22	28	DSI	H01		0.74	0.65
3	22	61	DSI	H03		0.74	0.65
3	25	81	DSI	H02		0.74	0.55
3	30	21	DSI	H01		0.74	0.60
3	31	26	DSI	H03		0.74	0.68
3	38	36	DSI	H02		0.74	0.68
3	40	25	DSI	H03		0.74	0.79

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
3	44	59	DSI	H01	Y	0.74	1.03
3	4	13	DSI	H01		0.73	0.32
3	7	58	DSI	H02		0.73	0.52
3	7	72	DSI	H01		0.73	0.63
3	13	3	DSI	H02		0.73	0.51
3	19	37	DSI	H01		0.73	1.07
3	6	5	DSI	H01		0.72	0.52
3	7	60	DSI	H01		0.72	0.72
3	8	52	DSI	H01		0.72	0.76
3	13	54	DSI	H01		0.72	0.61
3	15	7	DSI	H03		0.72	0.67
3	20	89	DSI	H01		0.72	0.56
3	34	28	DSI	H04		0.72	0.40
3	34	61	DSI	H01		0.72	0.66
3	7	93	DSI	H01		0.71	0.63
3	24	16	DSI	H02		0.71	0.69
3	27	85	DSI	H02		0.71	0.14
3	41	36	DSI	H04		0.71	0.51
3	5	85	DSI	C01		0.70	0.15
3	9	50	DSI	H01		0.70	0.82
3	17	11	DSI	H01		0.70	0.72
3	23	60	DSI	H02		0.70	0.45
3	24	10	DSI	H01		0.70	0.88
3	27	79	DSI	H06		0.70	0.33
3	31	17	DSI	H03		0.70	0.73
3	31	20	DSI	H01		0.70	0.56
3	34	36	DSI	H03		0.70	0.67
3	9	7	DSI	H01		0.69	0.82
3	9	13	DSI	H05		0.69	0.94
3	13	53	DSI	H01		0.69	1.02
3	26	25	DSI	H02		0.69	1.06
3	34	19	DSI	H02		0.69	0.84
3	34	51	DSI	H02		0.69	0.83
3	36	48	DSI	H02		0.69	0.32
3	7	29	DSI	H01		0.68	0.85
3	8	50	DSI	H02		0.68	0.78
3	17	12	DSI	H01		0.68	0.75
3	40	24	DSI	H03		0.68	0.51
3	46	52	DSI	H01		0.68	0.75
3	3	16	DSI	H03		0.67	0.72
3	3	19	DSI	H06		0.67	0.55
3	5	17	DSI	H02		0.67	0.73
3	7	71	DSI	H03		0.67	0.47
3	8	22	DSI	H03		0.67	0.77

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
3	11	6	DSI	H03		0.67	0.81
3	19	17	DSI	H01		0.67	0.60
3	19	22	DSI	H02		0.67	0.45
3	22	68	DSI	H02		0.67	0.67
3	24	23	DSI	H01		0.67	0.70
3	39	68	DSI	H04		0.67	0.41
3	2	25	DSI	H03		0.66	0.46
3	8	15	DSI	H02		0.66	0.56
3	8	28	DSI	H01		0.66	0.79
3	9	4	DSI	H01		0.66	0.70
3	14	39	DSI	H03		0.66	0.84
3	15	8	DSI	H01		0.66	1.18
3	17	50	DSI	H01		0.66	0.60
3	19	11	DSI	H01		0.66	0.67
3	20	35	DSI	H03	Y	0.66	0.72
3	33	45	DSI	H02		0.66	0.62
3	37	23	DSI	H01		0.66	0.58
3	41	39	DSI	H02		0.66	0.86
3	8	24	DSI	H03		0.65	0.56
3	11	5	DSI	H02		0.65	0.59
3	18	6	DSI	H01		0.65	0.34
3	22	7	DSI	H01		0.65	0.51
3	22	21	DSI	H01		0.65	0.47
3	22	40	DSI	H01		0.65	0.69
3	26	12	DSI	H01		0.65	0.28
3	43	47	DSI	H05		0.65	0.60
3	2	79	DSI	H01		0.64	0.77
3	14	14	DSI	H01		0.64	0.64
3	15	13	DSI	H02		0.64	0.71
3	17	40	DSI	H01		0.64	1.26
3	17	87	DSI	H04		0.64	0.52
3	24	10	DSI	H05		0.64	0.62
3	27	29	DSI	H01		0.64	0.57
3	33	49	DSI	H02		0.64	0.56
3	3	2	DSI	H05		0.63	0.31
3	3	19	DSI	H01		0.63	0.58
3	3	51	DSI	H02		0.63	0.44
3	7	24	DSI	H02		0.63	0.97
3	7	56	DSI	H01		0.63	0.62
3	8	18	DSI	H05		0.63	0.90
3	8	59	DSI	H01		0.63	0.72
3	9	16	DSI	H01		0.63	0.91
3	10	5	DSI	H01		0.63	0.97
3	13	29	DSI	H01		0.63	0.78



SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
3	21	84	DSI	H04		0.63	0.48
3	33	27	DSI	H01		0.63	0.82
3	7	92	DSI	H01		0.62	0.46
3	13	52	DSI	H01		0.62	0.50
3	18	28	DSI	H01		0.62	0.47
3	21	7	DSI	H01		0.62	0.72
3	32	20	DSI	H01		0.62	0.40
3	39	28	DSI	H03		0.62	0.46
3	7	6	DSI	H01		0.61	0.70
3	15	43	DSI	H02		0.61	0.42
3	22	53	DSI	H02		0.61	0.81
3	23	14	DSI	H03		0.61	0.76
3	26	29	DSI	H02		0.61	0.45
3	26	29	DSI	H03		0.61	1.35
3	27	26	DSI	H01		0.61	0.61
3	37	27	DSI	H02		0.61	0.56
3	43	44	DSI	H04		0.61	0.65
3	5	5	DSI	H02		0.60	1.08
3	9	13	DSI	H02		0.60	0.88
3	14	20	DSI	H02		0.60	0.84
3	15	7	DSI	H02		0.60	0.49
3	16	24	DSI	H01		0.60	0.53
3	16	44	DSI	H01		0.60	0.54
3	18	45	DSI	H01	Y	0.60	0.49
3	32	54	DSI	H02		0.60	0.63
3	34	25	DSI	H03		0.60	0.48
3	38	27	DSI	H02		0.60	0.50
3	6	38	DSI	H03		0.59	0.59
3	6	87	DSI	H02		0.59	0.54
3	11	7	DSI	H01		0.59	0.55
3	12	22	DSI	H02		0.59	0.78
3	12	38	DSI	H01		0.59	0.87
3	18	35	DSI	H03		0.59	0.79
3	19	40	DSI	H01		0.59	0.46
3	22	23	DSI	H01		0.59	0.41
3	32	25	DSI	H02		0.59	0.55
3	38	45	DSI	H02		0.59	0.61
3	42	50	DSI	H06		0.59	0.50
3	4	85	DSI	C03		0.58	0.61
3	24	27	DSI	H02		0.58	0.56
3	1	76	DSI	H03		0.57	0.63
3	7	94	DSI	H03		0.57	0.56
3	13	9	DSI	H01		0.57	0.55
3	24	12	DSI	H02		0.57	0.50

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
3	29	30	DSI	H03		0.57	0.27
3	30	80	DSI	H02		0.57	0.24
3	31	26	DSI	H02		0.57	0.48
3	38	33	DSI	H01		0.57	0.56
3	2	25	DSI	H02		0.56	0.54
3	3	2	DSI	H03		0.56	0.87
3	3	29	DSI	H02		0.56	0.43
3	6	38	DSI	H04		0.56	0.60
3	17	39	DSI	H02		0.56	0.44
3	29	50	DSI	H03		0.56	0.57
3	33	70	DSI	H02		0.56	0.70
3	37	68	DSI	H02		0.56	0.44
3	7	25	DSI	H02		0.55	0.68
3	7	67	DSI	H02		0.55	0.44
3	7	73	DSI	H06	Y	0.55	0.29
3	17	20	DSI	H01		0.55	0.63
3	21	82	DSI	H02		0.55	0.61
3	38	46	DSI	H02		0.55	0.57
3	43	50	DSI	H04		0.55	0.87
3	44	58	DSI	H02		0.55	0.43
3	4	26	DSI	H01		0.54	0.54
3	8	63	DSI	H01	Y	0.54	0.76
3	8	67	DSI	H02		0.54	0.66
3	13	10	DSI	H02		0.54	0.49
3	14	6	DSI	H03		0.54	0.80
3	34	29	DSI	H01		0.54	0.61
3	35	58	DSI	H05		0.54	0.43
3	7	78	DSI	C06		0.53	0.45
3	8	64	DSI	H01		0.53	0.71
3	19	69	DSI	H07		0.53	0.24
3	25	52	DSI	H02		0.53	0.51
3	25	72	DSI	H02		0.53	0.32
3	37	21	DSI	C01		0.53	0.25
3	40	25	DSI	H01		0.53	0.73
3	40	67	DSI	H02		0.53	0.46
3	2	73	DSI	H02		0.52	0.46
3	3	1	DSI	H02		0.52	0.64
3	3	3	DSI	H06		0.52	0.38
3	3	49	DSI	H02		0.52	0.54
3	5	4	DSI	H06		0.52	0.68
3	10	60	DSI	H01		0.52	0.61
3	13	17	DSI	H02		0.52	0.60
3	18	89	DSI	H01		0.52	0.31
3	24	15	DSI	H02		0.52	0.75

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
3	35	55	DSI	H02		0.52	0.76
3	4	50	DSI	H05		0.51	0.23
3	7	61	DSI	H01		0.51	0.56
3	11	52	DSI	H01		0.51	0.52
3	21	81	DSI	H03		0.51	0.32
3	27	18	DSI	H03		0.51	0.46
3	30	26	DSI	H02		0.51	0.41
3	6	79	DSI	H02		0.50	0.37
3	9	20	DSI	H02		0.50	0.82
3	11	27	DSI	H01		0.50	0.60
3	30	18	DSI	H01		0.50	0.40
3	38	29	DSI	H02		0.50	0.41
3	3	2	DSI	H01		0.49	0.81
3	13	40	DSI	H02		0.49	0.48
3	16	18	DSI	H05		0.49	0.66
3	21	20	DSI	H01		0.49	0.59
3	23	75	DSI	H03		0.49	0.43
3	27	68	DSI	H06		0.49	0.19
3	32	21	DSI	H01		0.49	0.49
3	35	27	DSI	H01		0.49	0.47
3	35	44	DSI	H03		0.49	0.68
3	45	42	DSI	H02		0.49	0.67
3	19	6	DSI	H01		0.48	0.36
3	26	22	DSI	H06		0.48	0.68
3	31	25	DSI	H02		0.48	0.47
3	3	94	DSI	H04		0.47	0.46
3	8	6	DSI	H03		0.47	0.44
3	13	29	DSI	H03		0.47	0.26
3	34	19	DSI	H03		0.47	0.63
3	35	23	DSI	H01		0.47	0.44
3	40	62	DSI	H03		0.47	0.40
3	2	58	DSI	C01		0.46	0.49
3	7	14	DSI	H02		0.46	0.69
3	8	42	DSI	H01		0.46	0.40
3	9	52	DSI	H01		0.46	0.23
3	24	23	DSI	H02		0.46	0.43
3	25	24	DSI	H01		0.46	0.77
3	25	35	DSI	H01		0.46	0.54
3	26	29	DSI	H01		0.46	0.64
3	38	58	DSI	H03		0.46	0.58
3	9	10	DSI	H03		0.45	0.37
3	11	5	DSI	H03		0.45	0.56
3	11	17	DSI	H06		0.45	0.38
3	13	44	DSI	H02		0.45	1.05

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
3	23	22	DSI	H01		0.45	0.73
3	25	49	DSI	H03		0.45	0.39
3	41	30	DSI	H03		0.45	0.52
3	4	55	DSI	H01		0.44	0.25
3	6	11	DSI	H01		0.44	0.41
3	8	70	DSI	H03		0.44	0.81
3	12	58	DSI	H05		0.44	0.65
3	14	3	DSI	H03		0.44	0.41
3	15	33	DSI	H04		0.44	0.43
3	20	50	DSI	H02		0.44	0.35
3	36	31	DSI	H02		0.44	0.43
3	42	52	DSI	H03		0.44	0.57
3	2	16	DSI	H01		0.43	0.44
3	4	54	DSI	H01		0.43	0.68
3	7	61	DSI	H03		0.43	0.54
3	7	85	DSI	C02		0.43	0.54
3	29	23	DSI	H05		0.43	0.33
3	41	33	DSI	H02		0.43	0.33
3	45	49	DSI	H01		0.43	0.37
3	2	25	DSI	H06		0.42	0.35
3	14	11	DSI	H03		0.42	0.35
3	14	41	DSI	H02		0.42	0.46
3	16	14	DSI	H01		0.42	0.45
3	18	37	DSI	H02		0.42	0.86
3	20	80	DSI	H06		0.42	0.51
3	28	14	DSI	H01		0.42	0.51
3	37	43	DSI	H03		0.42	0.54
3	38	44	DSI	H03		0.42	0.87
3	40	69	DSI	H02		0.42	0.46
3	45	53	DSI	C03		0.42	0.25
3	7	81	DSI	H06		0.41	0.34
3	7	85	DSI	H02		0.41	0.38
3	8	55	DSI	H02		0.41	0.30
3	10	6	DSI	H03		0.41	0.64
3	15	37	DSI	H01		0.41	0.90
3	27	29	DSI	H02		0.41	0.36
3	33	44	DSI	H01		0.41	0.39
3	46	52	DSI	H02		0.41	0.35
3	1	82	DSI	C01		0.40	0.45
3	4	27	DSI	H01		0.40	0.34
3	6	94	DSI	H02		0.40	0.34
3	12	27	DSI	H01		0.40	0.50
3	15	20	DSI	H01		0.40	1.23
3	15	39	DSI	H01		0.40	0.60

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
3	16	5	DSI	H04		0.40	0.39
3	18	8	DSI	H01		0.40	0.41
3	26	30	DSI	H02		0.40	0.48
3	32	57	DSI	H03		0.40	0.46
3	33	41	DSI	H02		0.40	0.30
3	40	43	DSI	H02		0.40	0.56
3	7	73	DSI	H02	Y	0.39	0.33
3	10	42	DSI	C03		0.39	0.37
3	14	13	DSI	H02		0.39	0.36
3	20	88	DSI	H01		0.39	0.42
3	23	44	DSI	H01		0.39	0.40
3	26	22	DSI	H05		0.39	0.84
3	31	42	DSI	H02		0.39	0.46
3	31	76	DSI	H03		0.39	INR
3	33	31	DSI	H03		0.39	0.40
3	43	54	DSI	H03		0.39	0.40
3	5	13	DSI	H05		0.38	0.63
3	8	51	DSI	H01		0.38	0.50
3	15	6	DSI	H03	Y	0.38	0.42
3	17	47	DSI	H03		0.38	0.44
3	18	53	DSI	H05		0.38	0.46
3	21	15	DSI	H02		0.38	0.46
3	34	60	DSI	H04		0.38	0.42
3	41	68	DSI	H02		0.38	0.55
3	2	31	DSI	H03		0.37	0.62
3	2	33	DSI	H01		0.37	0.46
3	3	24	DSI	H02		0.37	0.50
3	8	68	DSI	H02		0.37	0.47
3	23	49	DSI	H02		0.37	0.38
3	27	68	DSI	H05		0.37	0.18
3	35	47	DSI	H04		0.37	0.30
3	38	58	DSI	H05		0.37	0.45
3	2	31	DSI	H01		0.36	0.43
3	4	48	DSI	H01		0.36	0.50
3	5	5	DSI	H03		0.36	0.49
3	6	38	DSI	H02		0.36	0.38
3	7	73	DSI	H05	Y	0.36	0.34
3	8	57	DSI	H04		0.36	0.39
3	15	36	DSI	H02		0.36	0.29
3	16	16	DSI	H01		0.36	0.66
3	17	87	DSI	H01		0.36	0.34
3	30	59	DSI	H06	Y	0.36	0.41
3	36	21	DSI	C02		0.36	0.41
3	8	57	DSI	H01		0.35	0.83

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
3	11	16	DSI	H03		0.35	0.63
3	14	18	DSI	H04		0.35	0.28
3	35	24	DSI	H03		0.35	0.31
3	27	68	DSI	H02		0.34	0.37
3	32	76	DSI	H03		0.34	0.30
3	4	15	DSI	H05		0.33	0.34
3	20	31	DSI	H03		0.33	0.35
3	36	29	DSI	H02		0.33	0.24
3	3	24	DSI	H01		0.32	0.48
3	3	34	DSI	H05		0.32	0.82
3	6	50	DSI	H01		0.32	0.45
3	17	82	DSI	H05		0.32	0.38
3	18	45	DSI	H03	Y	0.32	0.28
3	18	81	DSI	H03		0.32	0.31
3	20	31	DSI	H02		0.32	0.23
3	38	27	DSI	H04		0.32	0.24
3	40	41	DSI	H03		0.32	0.42
3	9	6	DSI	H01		0.31	0.24
3	9	62	DSI	H01		0.31	0.24
3	14	79	DSI	H02		0.31	0.42
3	19	13	DSI	H02		0.31	0.39
3	24	13	DSI	H01		0.31	0.41
3	29	16	DSI	H01		0.31	0.21
3	5	4	DSI	H02		0.30	0.26
3	5	18	DSI	H01		0.30	0.31
3	8	6	DSI	H01		0.30	0.38
3	13	5	DSI	H03		0.30	0.32
3	20	79	DSI	H02		0.30	0.34
3	21	29	DSI	H02		0.30	0.25
3	22	15	DSI	H03		0.30	0.40
3	26	27	DSI	H01		0.30	0.51
3	3	3	DSI	H05		0.29	0.35
3	7	35	DSI	H03		0.29	0.66
3	9	40	DSI	H02		0.29	0.41
3	30	50	DSI	H03		0.29	0.29
3	32	48	DSI	H02		0.29	0.29
3	6	79	DSI	H03		0.28	0.41
3	29	79	DSI	C03		0.28	0.23
3	37	66	DSI	H04		0.28	0.49
3	7	38	DSI	H02		0.27	0.44
3	15	71	DSI	H05		0.27	0.36
3	20	29	DSI	H03		0.27	0.46
3	25	24	DSI	H02		0.27	0.77
3	2	32	DSI	H01		0.26	0.41

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
3	17	49	DSI	C01		0.26	0.26
3	32	56	DSI	H04		0.26	0.31
3	32	77	DSI	H02		0.26	0.35
3	35	58	DSI	H04		0.26	0.33
3	42	63	DSI	H01		0.26	0.36
3	6	75	DSI	H02		0.25	0.22
3	8	70	DSI	H05		0.25	0.41
3	13	7	DSI	C02		0.25	0.30
3	36	68	DSI	H02		0.25	0.21
3	3	7	DSI	H05		0.24	0.36
3	6	40	DSI	H05		0.24	0.40
3	6	77	DSI	H02		0.24	0.29
3	13	17	DSI	H06		0.24	0.20
3	29	71	DSI	H02		0.24	0.37
3	8	13	DSI	H06		0.23	0.21
3	14	27	DSI	H06		0.23	0.23
3	19	47	DSI	H01		0.23	0.20
3	21	41	DSI	H01		0.23	0.33
3	2	2	DSI	H01		0.22	0.25
3	2	38	DSI	H04		0.22	0.26
3	42	33	DSI	H01		0.22	0.85
3	2	38	DSI	H02		0.21	0.22
3	9	3	DSI	H01		0.21	0.19
3	27	12	DSI	H01		0.20	1.40
3	27	67	DSI	H02		0.20	0.20
3	32	75	DSI	C05		0.20	0.25
3	34	29	DSI	H03		0.18	0.30
3	42	43	DSI	H04		0.18	0.64
3	34	72	DSI	H01		0.17	0.20
3	38	58	DSI	H04		0.16	0.25
3	11	16	DSI	H06		0.14	0.40
4	12	34	DSI	H02	Y	2.77	1.56
4	8	43	DSI	H04	Y	2.52	0.69
4	25	40	DSI	H01	Y	2.12	1.92
4	20	40	DSI	H01	Y	2.02	1.86
4	27	73	DSI	H02	Y	2.00	1.99
4	20	69	DSI	H01		1.98	1.80
4	7	48	DSI	H01		1.87	1.85
4	17	27	DSI	H01		1.82	1.55
4	13	48	DSI	H01		1.81	1.74
4	8	92	DSI	H01		1.74	1.76
4	22	33	DSI	H02		1.71	1.58
4	12	43	DSI	H01		1.67	1.48
4	8	85	DSI	H02		1.64	1.79

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	2	76	DSI	H01		1.61	1.63
4	26	68	DSI	H01		1.60	1.50
4	8	34	DSI	H01		1.58	1.66
4	20	25	DSI	H01		1.58	1.62
4	8	60	DSI	H01		1.57	1.54
4	29	30	DSI	H02		1.56	1.39
4	8	83	DSI	H01		1.55	1.65
4	31	58	DSI	H03		1.55	1.63
4	9	42	DSI	H01		1.53	1.65
4	12	33	DSI	H04	Y	1.53	1.13
4	25	42	DSI	H01		1.53	1.62
4	12	37	DSI	H02		1.52	0.98
4	28	30	DSI	H02		1.51	1.25
4	17	82	DSI	H01		1.49	1.51
4	25	49	DSI	H02		1.49	1.45
4	12	32	DSI	H01		1.48	1.37
4	13	41	DSI	H03		1.48	1.45
4	14	22	DSI	H01		1.48	1.48
4	4	82	DSI	H01		1.47	1.51
4	20	32	DSI	H01		1.47	1.19
4	14	86	DSI	H01		1.46	1.29
4	17	26	DSI	H02		1.46	0.92
4	23	63	DSI	H01		1.45	1.26
4	22	41	DSI	H02		1.44	1.10
4	5	28	DSI	H01		1.43	1.28
4	9	38	DSI	H01		1.43	1.53
4	2	67	DSI	H01		1.42	1.48
4	15	52	DSI	H01		1.42	1.72
4	7	55	DSI	H01		1.41	1.59
4	14	57	DSI	H01		1.41	1.57
4	14	82	DSI	H01		1.41	1.48
4	14	92	DSI	H01		1.40	1.58
4	9	35	DSI	H01		1.39	1.42
4	1	85	DSI	H01		1.38	1.33
4	20	46	DSI	H02		1.38	1.23
4	8	41	DSI	H01		1.37	1.43
4	27	27	DSI	H02		1.37	0.91
4	34	50	DSI	H03		1.37	1.04
4	18	33	DSI	H01		1.35	0.64
4	22	33	DSI	H01		1.35	1.26
4	27	71	DSI	H01		1.34	1.70
4	8	92	DSI	H02		1.33	1.29
4	17	87	DSI	H01		1.33	1.61
4	27	76	DSI	H01		1.33	1.46



SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	20	57	DSI	H01		1.32	0.95
4	5	42	DSI	H01		1.31	1.44
4	23	70	DSI	H01		1.31	1.27
4	28	67	DSI	H01		1.31	1.59
4	17	21	DSI	H01		1.29	1.35
4	23	54	DSI	H01		1.29	1.75
4	19	51	DSI	H01		1.28	1.37
4	23	66	DSI	H01		1.28	1.06
4	5	35	DSI	H01		1.27	1.14
4	2	74	DSI	H02		1.26	1.17
4	5	39	DSI	H01		1.26	1.37
4	20	15	DSI	H02		1.26	1.59
4	20	29	DSI	H02		1.26	0.80
4	21	51	DSI	H01		1.26	1.01
4	9	30	DSI	H01	Y	1.25	1.30
4	12	85	DSI	H01		1.25	0.78
4	19	84	DSI	H01		1.25	1.31
4	2	55	DSI	H01		1.24	1.26
4	28	48	DSI	H01		1.24	1.22
4	28	68	DSI	H01		1.24	1.02
4	5	80	DSI	H01		1.23	1.43
4	13	84	DSI	H01		1.23	1.97
4	13	86	DSI	H01		1.23	1.22
4	5	34	DSI	H01	Y	1.22	1.33
4	14	77	DSI	H01		1.22	1.53
4	18	14	DSI	H02		1.22	0.97
4	23	87	DSI	H01		1.22	1.69
4	28	71	DSI	H02		1.22	1.27
4	22	47	DSI	H02		1.21	1.09
4	27	15	DSI	H02		1.21	1.18
4	32	67	DSI	H02		1.21	1.35
4	4	90	DSI	H01		1.20	1.22
4	7	54	DSI	H01		1.20	1.20
4	9	48	DSI	H01		1.20	1.19
4	22	41	DSI	H01		1.20	1.21
4	28	35	DSI	H02		1.20	1.15
4	12	83	DSI	H01		1.19	1.42
4	13	49	DSI	H01		1.19	1.33
4	27	79	DSI	H01		1.19	1.27
4	8	52	DSI	H01		1.18	1.28
4	19	43	DSI	H02		1.18	0.95
4	12	62	DSI	H01		1.17	0.97
4	16	89	DSI	H01		1.17	1.33
4	4	87	DSI	H01		1.16	1.16

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	4	94	DSI	H01		1.16	1.33
4	9	2	DSI	H02		1.16	1.21
4	9	44	DSI	H01		1.16	1.16
4	20	60	DSI	H01		1.16	1.49
4	3	71	DSI	H01		1.15	1.23
4	6	88	DSI	H01		1.15	1.19
4	7	58	DSI	H01	Y	1.15	1.23
4	9	43	DSI	H01		1.15	1.17
4	20	37	DSI	H01		1.15	1.12
4	21	39	DSI	H01		1.15	1.03
4	23	64	DSI	H01		1.15	1.05
4	4	40	DSI	H01		1.14	1.18
4	8	59	DSI	H01		1.14	1.24
4	9	57	DSI	H01		1.14	1.25
4	20	34	DSI	H02		1.14	0.87
4	35	69	DSI	H02		1.14	1.19
4	35	71	DSI	H01		1.14	1.09
4	31	71	DSI	H02		1.13	1.12
4	32	66	DSI	H03		1.13	1.17
4	9	22	DSI	H02		1.12	1.28
4	18	49	DSI	H01		1.12	0.93
4	4	92	DSI	H03		1.11	1.11
4	5	38	DSI	H01		1.11	1.21
4	5	89	DSI	H01		1.11	1.39
4	21	39	DSI	H02		1.11	0.85
4	25	58	DSI	H02		1.11	0.90
4	27	84	DSI	H02		1.11	1.17
4	5	30	DSI	H01		1.10	1.15
4	13	45	DSI	H01		1.10	0.91
4	20	30	DSI	H02		1.10	1.63
4	20	48	DSI	H01		1.10	1.60
4	21	88	DSI	H01		1.10	1.02
4	28	82	DSI	H02		1.10	1.06
4	2	53	DSI	H02		1.09	1.05
4	4	89	DSI	H03		1.09	1.13
4	5	71	DSI	H01		1.09	1.31
4	20	48	DSI	H02		1.09	0.92
4	28	72	DSI	H02		1.09	0.98
4	20	39	DSI	H01		1.08	1.05
4	20	52	DSI	H01		1.08	1.21
4	26	73	DSI	H02		1.08	1.26
4	28	48	DSI	H03		1.08	0.79
4	5	43	DSI	H02		1.07	1.06
4	8	77	DSI	H02		1.07	1.31

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	13	53	DSI	H01		1.07	1.11
4	15	53	DSI	H01		1.07	1.29
4	20	70	DSI	H02		1.07	1.15
4	21	48	DSI	H02		1.07	1.03
4	23	73	DSI	H01		1.07	0.93
4	4	23	DSI	H01		1.06	1.04
4	27	77	DSI	H03		1.06	1.01
4	27	82	DSI	H03		1.06	0.90
4	8	82	DSI	H01		1.05	1.06
4	14	24	DSI	H02		1.05	0.82
4	14	90	DSI	H01		1.05	1.21
4	15	39	DSI	H01		1.05	0.89
4	26	14	DSI	H03		1.05	0.79
4	27	45	DSI	H01		1.05	0.95
4	32	70	DSI	H01		1.05	0.49
4	6	80	DSI	H01		1.04	1.12
4	25	53	DSI	H01		1.04	1.10
4	25	60	DSI	H01		1.04	1.11
4	27	75	DSI	H01		1.04	1.27
4	28	75	DSI	H02		1.04	1.08
4	4	86	DSI	H03		1.03	1.02
4	8	89	DSI	H01		1.03	1.08
4	12	76	DSI	H01		1.03	1.39
4	13	15	DSI	H02	Y	1.03	0.89
4	18	40	DSI	H01		1.03	0.51
4	20	49	DSI	H03		1.03	0.94
4	25	60	DSI	H02		1.03	0.41
4	27	69	DSI	H01		1.03	0.81
4	29	42	DSI	H02		1.03	0.96
4	32	62	DSI	H01		1.03	1.35
4	36	62	DSI	H02		1.03	1.17
4	3	18	DSI	H02		1.02	1.05
4	13	34	DSI	H01		1.02	1.03
4	22	59	DSI	H01	Y	1.02	0.85
4	25	43	DSI	H01		1.02	1.26
4	28	74	DSI	H03		1.02	1.16
4	3	25	DSI	H02		1.01	0.96
4	12	2	DSI	H02		1.01	1.13
4	12	41	DSI	H01		1.01	0.97
4	13	15	DSI	H01	Y	1.01	0.90
4	13	50	DSI	H03		1.01	0.90
4	25	41	DSI	H01		1.01	1.01
4	25	57	DSI	H01		1.01	1.02
4	28	70	DSI	H02		1.01	0.82

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	37	67	DSI	H01		1.01	0.97
4	4	88	DSI	H02		1.00	0.96
4	23	86	DSI	H01		1.00	0.83
4	29	26	DSI	H02		1.00	0.70
4	5	88	DSI	H02		0.99	1.26
4	5	91	DSI	H01		0.99	1.24
4	8	2	DSI	H02		0.99	1.05
4	13	30	DSI	H02		0.99	0.88
4	13	84	DSI	H02		0.99	1.38
4	29	18	DSI	H07		0.99	0.96
4	2	38	DSI	H03		0.98	0.92
4	18	57	DSI	H01		0.98	1.05
4	23	86	DSI	H02		0.98	0.52
4	24	46	DSI	H01		0.98	0.78
4	27	81	DSI	H02		0.98	1.28
4	28	71	DSI	H01		0.98	1.02
4	34	72	DSI	H01		0.98	0.78
4	6	74	DSI	H01		0.97	1.09
4	8	39	DSI	H01		0.97	1.03
4	9	21	DSI	H02		0.97	0.95
4	20	64	DSI	H02		0.97	0.94
4	6	91	DSI	H01		0.96	1.09
4	13	47	DSI	H01		0.96	0.88
4	14	83	DSI	H01		0.96	1.28
4	19	77	DSI	H01		0.96	1.12
4	30	21	DSI	H02		0.96	0.92
4	34	71	DSI	H02		0.96	0.93
4	8	48	DSI	H03		0.95	0.96
4	8	50	DSI	H01		0.95	1.00
4	14	88	DSI	H01		0.95	1.38
4	16	91	DSI	H01		0.95	1.03
4	22	45	DSI	H02		0.95	0.61
4	30	77	DSI	H01		0.95	1.21
4	2	72	DSI	H02		0.94	0.98
4	6	39	DSI	H02		0.94	0.85
4	9	23	DSI	H01		0.94	0.97
4	17	15	DSI	H02		0.94	0.86
4	18	62	DSI	H01		0.94	1.19
4	25	80	DSI	H02		0.94	1.07
4	32	62	DSI	H02		0.94	1.01
4	6	90	DSI	H01		0.93	0.97
4	8	17	DSI	H02		0.93	0.99
4	8	78	DSI	H01		0.93	0.94
4	14	89	DSI	H01		0.93	1.20

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	18	36	DSI	H01		0.93	0.49
4	20	59	DSI	H04		0.93	0.62
4	23	65	DSI	H02		0.93	1.08
4	25	21	DSI	H01		0.93	0.75
4	27	74	DSI	H01		0.93	1.13
4	28	72	DSI	H01		0.93	1.06
4	33	56	DSI	H01		0.93	0.93
4	33	65	DSI	H02		0.93	0.95
4	41	52	DSI	H02		0.93	0.73
4	4	90	DSI	H02		0.92	1.11
4	5	28	DSI	H02		0.92	0.55
4	9	53	DSI	H01		0.92	1.02
4	12	18	DSI	H02		0.92	0.95
4	12	24	DSI	H01		0.92	1.11
4	15	64	DSI	H01		0.92	0.80
4	18	33	DSI	H02		0.92	0.68
4	28	66	DSI	H02		0.92	0.89
4	32	77	DSI	H03		0.92	1.06
4	38	72	DSI	H02		0.92	0.92
4	6	75	DSI	H01		0.91	1.00
4	7	59	DSI	H01		0.91	1.10
4	8	31	DSI	H01		0.91	0.95
4	18	58	DSI	H01		0.91	1.25
4	23	72	DSI	H01		0.91	1.02
4	26	35	DSI	H01		0.91	0.92
4	27	75	DSI	H02		0.91	0.84
4	31	71	DSI	H01		0.91	1.04
4	2	14	DSI	H03		0.90	0.51
4	3	93	DSI	H02		0.90	1.03
4	8	73	DSI	H03		0.90	1.00
4	8	85	DSI	H01		0.90	1.35
4	12	28	DSI	H01		0.90	0.82
4	16	59	DSI	H01		0.90	0.99
4	19	63	DSI	H01		0.90	1.01
4	20	51	DSI	H01		0.90	1.09
4	22	68	DSI	H01		0.90	0.93
4	23	75	DSI	H03		0.90	1.10
4	29	43	DSI	H02		0.90	0.79
4	3	94	DSI	H01		0.89	1.05
4	5	78	DSI	H02		0.89	0.88
4	9	89	DSI	H02		0.89	1.12
4	12	38	DSI	H05		0.89	0.82
4	17	30	DSI	H02		0.89	0.71
4	17	56	DSI	H01		0.89	0.91

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	20	39	DSI	H05		0.89	0.65
4	29	19	DSI	H02		0.89	0.77
4	32	68	DSI	H02		0.89	0.64
4	1	82	DSI	H01		0.88	0.85
4	4	87	DSI	H03		0.88	0.86
4	8	92	DSI	H04		0.88	0.75
4	14	22	DSI	H02		0.88	0.77
4	26	19	DSI	H02		0.88	0.96
4	28	72	DSI	H03		0.88	0.71
4	29	60	DSI	H02		0.88	0.80
4	34	64	DSI	H02		0.88	0.66
4	39	70	DSI	H03		0.88	0.65
4	2	15	DSI	H03		0.87	0.91
4	3	28	DSI	H03		0.87	0.99
4	4	74	DSI	H03		0.87	0.89
4	4	82	DSI	H02		0.87	0.86
4	5	83	DSI	H01		0.87	1.05
4	5	93	DSI	H01		0.87	1.03
4	8	48	DSI	H01		0.87	0.96
4	9	28	DSI	H02		0.87	0.81
4	20	59	DSI	H01		0.87	0.70
4	28	85	DSI	H02		0.87	0.82
4	31	72	DSI	H02		0.87	1.05
4	5	87	DSI	H01		0.86	1.02
4	6	90	DSI	H02		0.86	0.70
4	8	21	DSI	H02		0.86	0.81
4	8	89	DSI	H02		0.86	0.93
4	8	90	DSI	H02		0.86	0.87
4	8	91	DSI	H03		0.86	0.97
4	9	73	DSI	H01		0.86	0.90
4	14	24	DSI	H01		0.86	0.93
4	14	79	DSI	H02		0.86	0.68
4	14	90	DSI	H02		0.86	0.99
4	17	84	DSI	H01		0.86	0.81
4	20	58	DSI	H01		0.86	1.11
4	23	73	DSI	H02		0.86	1.10
4	23	74	DSI	H01		0.86	0.97
4	27	48	DSI	H01		0.86	0.99
4	28	78	DSI	H01		0.86	0.93
4	38	57	DSI	H02		0.86	0.85
4	2	86	DSI	H02		0.85	0.88
4	3	21	DSI	H02		0.85	0.77
4	8	27	DSI	H03		0.85	0.82
4	10	12	DSI	H02		0.85	1.05

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	15	48	DSI	H01		0.85	1.19
4	19	42	DSI	H01		0.85	0.63
4	20	63	DSI	H01		0.85	0.97
4	27	78	DSI	H02		0.85	1.13
4	28	45	DSI	H01		0.85	0.58
4	28	73	DSI	H01		0.85	0.85
4	31	72	DSI	H01		0.85	0.91
4	34	25	DSI	H02		0.85	0.85
4	3	89	DSI	H02		0.84	1.06
4	6	23	DSI	H02		0.84	1.01
4	6	42	DSI	H01		0.84	0.88
4	12	44	DSI	H01		0.84	0.86
4	27	79	DSI	H02		0.84	1.01
4	35	73	DSI	H02		0.84	0.96
4	4	91	DSI	H02		0.83	0.87
4	8	80	DSI	H01		0.83	0.88
4	12	35	DSI	H01		0.83	0.84
4	12	61	DSI	H01		0.83	1.09
4	16	50	DSI	H01		0.83	0.89
4	17	13	DSI	H02		0.83	0.74
4	22	46	DSI	H01		0.83	0.46
4	23	75	DSI	H01		0.83	1.10
4	27	74	DSI	H02		0.83	0.97
4	28	77	DSI	H01		0.83	1.05
4	28	81	DSI	H03		0.83	0.76
4	32	69	DSI	H02		0.83	0.49
4	32	73	DSI	H02		0.83	1.08
4	36	56	DSI	H02		0.83	0.81
4	4	80	DSI	H04		0.82	0.85
4	4	90	DSI	H03		0.82	0.79
4	6	87	DSI	H02		0.82	0.95
4	9	37	DSI	H02		0.82	0.71
4	14	75	DSI	H02		0.82	0.70
4	18	67	DSI	H01		0.82	0.99
4	20	58	DSI	H02		0.82	0.92
4	26	69	DSI	H01		0.82	1.01
4	28	80	DSI	H03		0.82	0.89
4	32	63	DSI	H02		0.82	0.98
4	3	91	DSI	H01		0.81	0.93
4	6	30	DSI	H01		0.81	0.50
4	6	76	DSI	H01		0.81	0.79
4	8	29	DSI	H01		0.81	0.84
4	9	63	DSI	H01		0.81	0.78
4	23	88	DSI	H03		0.81	0.67

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	25	83	DSI	H01		0.81	0.79
4	26	14	DSI	H02		0.81	0.83
4	27	77	DSI	H01		0.81	0.99
4	29	50	DSI	H01		0.81	0.78
4	32	66	DSI	H01		0.81	0.69
4	34	70	DSI	H03		0.81	0.43
4	39	49	DSI	H02		0.81	0.80
4	3	87	DSI	H02		0.80	0.96
4	4	13	DSI	H02		0.80	0.69
4	12	63	DSI	H01		0.80	1.07
4	13	82	DSI	H02		0.80	0.58
4	20	26	DSI	H02		0.80	0.72
4	20	49	DSI	H02		0.80	0.83
4	23	68	DSI	H01		0.80	0.78
4	27	80	DSI	H03		0.80	0.99
4	27	82	DSI	H05		0.80	0.88
4	31	34	DSI	H02		0.80	0.49
4	33	45	DSI	H01		0.80	0.70
4	33	51	DSI	H02		0.80	0.79
4	3	25	DSI	H01		0.79	0.88
4	3	88	DSI	H01		0.79	0.94
4	3	88	DSI	H02		0.79	0.92
4	5	47	DSI	H01		0.79	0.79
4	5	74	DSI	H01		0.79	0.83
4	6	81	DSI	H02		0.79	0.86
4	6	90	DSI	H04		0.79	0.84
4	8	89	DSI	H03		0.79	0.85
4	12	30	DSI	H01		0.79	0.86
4	21	87	DSI	H01		0.79	0.88
4	22	46	DSI	H02		0.79	0.62
4	27	55	DSI	H01		0.79	0.50
4	28	75	DSI	H01		0.79	1.08
4	29	50	DSI	H02		0.79	0.94
4	29	51	DSI	H01		0.79	0.92
4	32	64	DSI	H02		0.79	1.10
4	34	47	DSI	H01		0.79	0.86
4	44	62	DSI	C02		0.79	0.60
4	2	9	DSI	H03		0.78	0.93
4	3	25	DSI	H03		0.78	0.78
4	6	72	DSI	H01		0.78	0.87
4	8	38	DSI	H01		0.78	0.70
4	13	17	DSI	H01		0.78	0.69
4	13	17	DSI	H02		0.78	0.78
4	13	70	DSI	H01		0.78	0.57



SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	20	12	DSI	H02		0.78	0.50
4	20	50	DSI	H01		0.78	1.06
4	20	64	DSI	H01		0.78	0.61
4	22	23	DSI	H02		0.78	0.59
4	27	46	DSI	H01		0.78	0.91
4	28	28	DSI	H04		0.78	0.63
4	28	65	DSI	H01		0.78	0.97
4	29	73	DSI	H03		0.78	0.82
4	31	42	DSI	H02		0.78	0.57
4	32	71	DSI	H01		0.78	0.47
4	36	71	DSI	H01		0.78	0.92
4	5	43	DSI	H01		0.77	0.83
4	6	28	DSI	H01		0.77	0.88
4	6	66	DSI	H01		0.77	0.89
4	7	46	DSI	H01		0.77	0.80
4	10	35	DSI	H01		0.77	0.95
4	10	52	DSI	H01		0.77	0.91
4	21	45	DSI	H01		0.77	0.70
4	22	47	DSI	H01		0.77	INR
4	25	34	DSI	H01		0.77	0.62
4	31	71	DSI	H03		0.77	0.39
4	34	28	DSI	H01		0.77	0.74
4	12	40	DSI	H01		0.76	0.78
4	17	58	DSI	H03	Y	0.76	0.85
4	20	68	DSI	H01		0.76	0.85
4	23	69	DSI	H02		0.76	0.70
4	4	28	DSI	H01		0.75	0.73
4	5	33	DSI	H01		0.75	0.90
4	8	27	DSI	H01		0.75	0.70
4	8	45	DSI	H02		0.75	0.83
4	12	23	DSI	H01		0.75	0.87
4	13	31	DSI	H02		0.75	0.44
4	18	59	DSI	H01		0.75	1.05
4	20	46	DSI	H01		0.75	0.61
4	22	25	DSI	H03		0.75	0.95
4	25	40	DSI	H02	Y	0.75	0.74
4	29	38	DSI	H01		0.75	0.68
4	31	76	DSI	H03		0.75	0.75
4	2	15	DSI	H02		0.74	0.73
4	2	25	DSI	H01		0.74	0.83
4	6	45	DSI	H01		0.74	0.81
4	8	47	DSI	H01		0.74	0.33
4	9	16	DSI	H01		0.74	0.81
4	9	24	DSI	H01		0.74	0.89

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	14	59	DSI	H01		0.74	1.06
4	17	88	DSI	H01		0.74	0.89
4	20	49	DSI	H04		0.74	0.37
4	23	60	DSI	H01		0.74	1.11
4	23	69	DSI	H01		0.74	0.78
4	28	52	DSI	H02		0.74	0.36
4	33	59	DSI	H02		0.74	0.51
4	34	49	DSI	H02		0.74	0.55
4	45	51	DSI	H04		0.74	0.49
4	4	87	DSI	H05		0.73	0.59
4	6	8	DSI	H01		0.73	0.35
4	8	81	DSI	H02		0.73	0.65
4	9	19	DSI	H02		0.73	0.81
4	9	36	DSI	H02		0.73	0.68
4	9	48	DSI	H03		0.73	0.71
4	12	43	DSI	H03		0.73	0.62
4	16	61	DSI	H01		0.73	0.82
4	17	21	DSI	H04		0.73	0.83
4	17	80	DSI	H01		0.73	0.38
4	19	71	DSI	H01		0.73	0.80
4	20	34	DSI	H01		0.73	0.69
4	23	45	DSI	H01		0.73	0.52
4	26	36	DSI	H01		0.73	0.74
4	34	69	DSI	H03		0.73	0.41
4	2	53	DSI	H01		0.72	0.86
4	6	2	DSI	H02		0.72	0.69
4	6	90	DSI	H03		0.72	0.78
4	8	28	DSI	H01		0.72	0.83
4	8	55	DSI	H01		0.72	0.83
4	8	92	DSI	H03		0.72	0.63
4	9	70	DSI	H01		0.72	0.87
4	11	42	DSI	H01		0.72	0.69
4	13	46	DSI	H01		0.72	0.46
4	13	57	DSI	H05		0.72	0.58
4	14	86	DSI	H02		0.72	1.15
4	17	57	DSI	H01		0.72	0.73
4	20	44	DSI	H03		0.72	0.77
4	20	62	DSI	H01		0.72	0.58
4	29	56	DSI	H02		0.72	0.78
4	31	72	DSI	H03		0.72	0.72
4	4	88	DSI	H03		0.71	0.58
4	5	53	DSI	H01		0.71	0.73
4	7	22	DSI	H02		0.71	0.92
4	8	42	DSI	H01		0.71	1.05

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	9	43	DSI	H02		0.71	0.64
4	13	35	DSI	H02		0.71	0.77
4	15	62	DSI	H01		0.71	0.70
4	17	30	DSI	H01		0.71	0.47
4	17	91	DSI	H01		0.71	0.77
4	18	57	DSI	H02		0.71	0.81
4	20	31	DSI	H01		0.71	0.67
4	20	44	DSI	H02		0.71	0.48
4	20	51	DSI	H04		0.71	0.41
4	21	48	DSI	H01		0.71	0.70
4	23	41	DSI	H02		0.71	0.62
4	23	75	DSI	H02		0.71	0.86
4	28	79	DSI	H02		0.71	0.95
4	2	88	DSI	H03		0.70	0.72
4	5	26	DSI	H01		0.70	0.46
4	6	78	DSI	H01		0.70	0.77
4	6	91	DSI	H02		0.70	0.89
4	7	57	DSI	H01		0.70	0.79
4	8	56	DSI	H01		0.70	0.79
4	8	86	DSI	H01		0.70	0.76
4	12	25	DSI	H03		0.70	0.59
4	12	71	DSI	H01		0.70	0.85
4	15	54	DSI	H01		0.70	0.97
4	19	89	DSI	H01		0.70	0.78
4	21	21	DSI	H02		0.70	0.98
4	21	44	DSI	H01		0.70	0.31
4	25	57	DSI	H02		0.70	0.87
4	28	74	DSI	H05		0.70	0.69
4	31	58	DSI	H02		0.70	0.95
4	36	24	DSI	H04		0.70	0.70
4	6	68	DSI	H01		0.69	0.72
4	7	18	DSI	H02		0.69	0.81
4	8	12	DSI	H03		0.69	0.80
4	8	19	DSI	H01		0.69	0.77
4	8	30	DSI	H01		0.69	0.60
4	8	36	DSI	H01		0.69	0.76
4	8	84	DSI	H02		0.69	0.64
4	9	23	DSI	H02		0.69	0.88
4	10	3	DSI	H02		0.69	0.77
4	12	82	DSI	H01		0.69	0.87
4	13	42	DSI	H01		0.69	0.95
4	18	15	DSI	H02		0.69	0.26
4	19	75	DSI	H01		0.69	0.97
4	20	53	DSI	H03		0.69	0.52

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	25	85	DSI	H01		0.69	0.55
4	29	48	DSI	H01		0.69	1.04
4	2	57	DSI	H03		0.68	0.67
4	2	64	DSI	H02		0.68	0.80
4	3	16	DSI	H02		0.68	0.63
4	3	90	DSI	H01		0.68	0.80
4	8	81	DSI	H01		0.68	0.81
4	8	91	DSI	H02		0.68	0.70
4	9	33	DSI	H01		0.68	0.72
4	9	37	DSI	H01		0.68	0.70
4	13	44	DSI	H01		0.68	0.69
4	13	47	DSI	H04		0.68	0.49
4	14	86	DSI	H04		0.68	0.89
4	20	31	DSI	H05		0.68	0.22
4	25	57	DSI	H04		0.68	0.45
4	27	66	DSI	H02		0.68	0.58
4	27	73	DSI	H03	Y	0.68	0.77
4	32	70	DSI	H02		0.68	0.81
4	34	44	DSI	H02		0.68	0.78
4	34	69	DSI	H02		0.68	0.49
4	4	14	DSI	H06		0.67	0.48
4	4	78	DSI	H01		0.67	0.55
4	5	82	DSI	H01		0.67	0.77
4	8	25	DSI	H01		0.67	0.54
4	8	29	DSI	H02		0.67	0.56
4	8	58	DSI	H01		0.67	0.59
4	10	31	DSI	H01		0.67	0.60
4	12	39	DSI	H06		0.67	0.73
4	14	77	DSI	H02		0.67	0.63
4	18	21	DSI	H01		0.67	0.73
4	22	25	DSI	H02		0.67	0.78
4	24	52	DSI	H02		0.67	0.69
4	25	22	DSI	H02		0.67	0.77
4	26	71	DSI	H01		0.67	0.71
4	27	72	DSI	H03		0.67	0.69
4	29	19	DSI	H06		0.67	0.47
4	31	55	DSI	H02		0.67	0.81
4	34	58	DSI	H02		0.67	0.86
4	34	78	DSI	H03		0.67	0.83
4	36	52	DSI	H02		0.67	0.65
4	37	45	DSI	H03		0.67	0.78
4	2	74	DSI	H01		0.66	0.68
4	8	78	DSI	H03		0.66	0.61
4	15	67	DSI	H01		0.66	0.75

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	18	61	DSI	H01		0.66	1.06
4	19	77	DSI	H02		0.66	0.61
4	20	55	DSI	H02		0.66	0.84
4	27	78	DSI	H01		0.66	0.81
4	32	75	DSI	H04		0.66	0.76
4	33	68	DSI	H01		0.66	0.71
4	36	60	DSI	H02		0.66	0.54
4	39	44	DSI	H02		0.66	0.52
4	40	43	DSI	H03		0.66	0.51
4	41	67	DSI	C01		0.66	0.54
4	4	12	DSI	H02		0.65	0.61
4	5	36	DSI	H01		0.65	0.49
4	5	44	DSI	H01		0.65	0.76
4	5	72	DSI	H01		0.65	0.73
4	5	92	DSI	H01		0.65	0.92
4	10	42	DSI	H01		0.65	0.61
4	15	38	DSI	H02		0.65	INR
4	15	78	DSI	H01		0.65	0.64
4	26	19	DSI	H03		0.65	0.68
4	27	77	DSI	H02		0.65	0.72
4	32	69	DSI	H01		0.65	0.82
4	40	67	DSI	H01		0.65	0.65
4	5	43	DSI	H03		0.64	0.71
4	6	38	DSI	H02		0.64	0.61
4	6	88	DSI	H02		0.64	0.68
4	17	55	DSI	H05		0.64	0.57
4	18	21	DSI	H04		0.64	0.66
4	19	35	DSI	H01		0.64	0.64
4	27	83	DSI	H03		0.64	0.87
4	29	47	DSI	H01		0.64	0.78
4	40	57	DSI	H01		0.64	0.81
4	2	38	DSI	H02		0.63	0.61
4	3	92	DSI	H01		0.63	0.78
4	4	93	DSI	H02		0.63	0.78
4	7	56	DSI	H01		0.63	0.82
4	8	67	DSI	H03		0.63	0.64
4	11	75	DSI	H02		0.63	0.97
4	12	31	DSI	H03		0.63	0.65
4	12	36	DSI	H01		0.63	0.70
4	13	22	DSI	H01		0.63	INR
4	17	62	DSI	H01		0.63	0.64
4	18	29	DSI	H01		0.63	0.43
4	19	37	DSI	H01		0.63	0.42
4	19	72	DSI	H02		0.63	0.94

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	20	29	DSI	H04		0.63	0.55
4	21	75	DSI	H01		0.63	INR
4	23	71	DSI	H01		0.63	0.84
4	25	58	DSI	H01		0.63	0.71
4	27	72	DSI	H02		0.63	0.58
4	28	40	DSI	H01		0.63	0.28
4	29	46	DSI	H02		0.63	0.29
4	34	66	DSI	H01		0.63	0.71
4	39	47	DSI	H03		0.63	0.64
4	4	19	DSI	H02		0.62	0.66
4	4	28	DSI	H04		0.62	0.55
4	4	47	DSI	H02		0.62	0.69
4	5	32	DSI	H03		0.62	0.63
4	8	5	DSI	H02		0.62	0.70
4	8	27	DSI	H02		0.62	0.51
4	12	75	DSI	H01		0.62	0.82
4	12	81	DSI	H01		0.62	0.75
4	15	54	DSI	H02		0.62	0.44
4	17	29	DSI	H01		0.62	0.65
4	20	46	DSI	H06		0.62	0.49
4	21	83	DSI	H01		0.62	0.81
4	25	51	DSI	H01		0.62	0.74
4	26	62	DSI	H01		0.62	0.69
4	41	52	DSI	H01		0.62	0.52
4	2	90	DSI	H01		0.61	0.75
4	3	18	DSI	H01		0.61	0.58
4	4	18	DSI	H01		0.61	0.68
4	6	24	DSI	H01		0.61	0.56
4	12	10	DSI	H03		0.61	0.76
4	15	4	DSI	H02		0.61	0.57
4	17	31	DSI	H04		0.61	0.66
4	18	50	DSI	H01		0.61	0.83
4	20	54	DSI	H01		0.61	0.80
4	20	55	DSI	H05		0.61	0.23
4	22	65	DSI	H01		0.61	0.91
4	28	66	DSI	H03		0.61	0.59
4	34	24	DSI	H04		0.61	0.60
4	2	47	DSI	H01		0.60	0.67
4	2	57	DSI	H01		0.60	0.56
4	4	90	DSI	H06		0.60	0.54
4	8	70	DSI	H01		0.60	0.66
4	9	40	DSI	H02		0.60	0.62
4	17	61	DSI	H01		0.60	0.88
4	17	76	DSI	H01		0.60	0.60

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	18	46	DSI	H01		0.60	0.73
4	19	75	DSI	H02		0.60	0.68
4	20	47	DSI	H03		0.60	0.39
4	23	84	DSI	H01		0.60	0.80
4	26	65	DSI	H02		0.60	0.83
4	27	81	DSI	H03		0.60	0.91
4	29	43	DSI	H01		0.60	0.88
4	31	39	DSI	H01		0.60	0.61
4	31	44	DSI	H02		0.60	0.42
4	32	77	DSI	H04		0.60	0.72
4	34	47	DSI	H03		0.60	0.61
4	35	20	DSI	H03		0.60	0.72
4	36	48	DSI	H02		0.60	0.53
4	39	64	DSI	H02		0.60	0.66
4	4	3	DSI	H02		0.59	0.62
4	6	50	DSI	H02		0.59	0.63
4	9	61	DSI	H01		0.59	0.69
4	9	64	DSI	H03		0.59	0.65
4	13	54	DSI	H01		0.59	0.78
4	14	91	DSI	H01		0.59	0.69
4	15	48	DSI	H03		0.59	0.50
4	15	65	DSI	H05		0.59	0.71
4	16	80	DSI	H03		0.59	0.72
4	18	13	DSI	C05		0.59	0.54
4	18	27	DSI	H01		0.59	0.38
4	19	29	DSI	H01		0.59	0.56
4	21	89	DSI	H01		0.59	0.96
4	22	67	DSI	H02		0.59	0.71
4	23	54	DSI	H02		0.59	0.62
4	24	56	DSI	H02		0.59	INR
4	28	68	DSI	H05		0.59	0.59
4	30	21	DSI	H04		0.59	0.38
4	36	63	DSI	H02		0.59	0.71
4	45	52	DSI	H04		0.59	0.46
4	4	27	DSI	H03		0.58	0.59
4	4	84	DSI	H02		0.58	0.66
4	5	37	DSI	H01		0.58	0.58
4	5	92	DSI	H03		0.58	0.56
4	8	13	DSI	H01		0.58	0.52
4	9	93	DSI	H02		0.58	0.72
4	10	20	DSI	H02		0.58	0.74
4	12	26	DSI	H01		0.58	0.65
4	13	15	DSI	H03	Y	0.58	0.50
4	15	51	DSI	H01		0.58	1.05

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	16	23	DSI	H05		0.58	0.72
4	18	33	DSI	H05		0.58	0.53
4	23	60	DSI	H02		0.58	0.74
4	23	70	DSI	H02		0.58	0.77
4	23	71	DSI	H02		0.58	0.78
4	25	75	DSI	H02		0.58	0.64
4	27	63	DSI	H01		0.58	0.99
4	28	11	DSI	H02		0.58	0.65
4	28	70	DSI	H01		0.58	0.56
4	32	61	DSI	H02		0.58	0.76
4	32	70	DSI	H03		0.58	0.42
4	32	75	DSI	H02		0.58	0.56
4	34	33	DSI	H02		0.58	0.65
4	34	55	DSI	H03		0.58	0.47
4	3	35	DSI	H01		0.57	0.53
4	5	73	DSI	H01		0.57	0.71
4	6	73	DSI	H01		0.57	0.65
4	7	61	DSI	H03		0.57	0.70
4	8	31	DSI	H03		0.57	0.68
4	8	35	DSI	H01		0.57	0.62
4	8	93	DSI	H03		0.57	0.61
4	12	59	DSI	H01		0.57	0.85
4	13	39	DSI	H02		0.57	0.55
4	13	57	DSI	H01		0.57	0.73
4	13	81	DSI	H03		0.57	0.67
4	18	36	DSI	H04		0.57	0.41
4	19	90	DSI	H02		0.57	0.58
4	20	46	DSI	H03		0.57	0.64
4	21	19	DSI	C05		0.57	0.66
4	23	85	DSI	H01		0.57	0.81
4	26	66	DSI	H02		0.57	0.69
4	27	40	DSI	H02		0.57	0.38
4	27	62	DSI	H01		0.57	0.60
4	27	80	DSI	H02		0.57	0.66
4	31	40	DSI	H02		0.57	0.65
4	32	71	DSI	H03		0.57	0.56
4	34	65	DSI	H02		0.57	0.80
4	36	65	DSI	H01		0.57	0.93
4	36	72	DSI	H01		0.57	0.50
4	41	57	DSI	H01		0.57	0.66
4	5	1	DSI	H02		0.56	0.49
4	5	76	DSI	H01		0.56	0.64
4	9	47	DSI	H01		0.56	0.66
4	9	47	DSI	H03		0.56	0.54



SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	10	36	DSI	H01		0.56	0.42
4	12	76	DSI	H05		0.56	0.63
4	13	44	DSI	H02		0.56	0.38
4	14	88	DSI	H03		0.56	0.66
4	18	15	DSI	H01		0.56	0.42
4	20	31	DSI	H04		0.56	0.45
4	27	65	DSI	H01		0.56	0.58
4	36	36	DSI	H04		0.56	0.55
4	36	50	DSI	H02		0.56	0.39
4	36	65	DSI	H02		0.56	0.70
4	40	56	DSI	H02		0.56	0.53
4	3	81	DSI	H02		0.55	0.66
4	4	13	DSI	H03		0.55	0.57
4	4	27	DSI	H01		0.55	0.46
4	5	63	DSI	H01		0.55	0.72
4	5	79	DSI	H01		0.55	0.71
4	8	12	DSI	H01		0.55	0.59
4	9	29	DSI	H01		0.55	0.68
4	9	39	DSI	H01		0.55	0.62
4	10	68	DSI	H03		0.55	0.76
4	13	14	DSI	H02		0.55	0.55
4	14	78	DSI	H02		0.55	0.37
4	17	75	DSI	H01		0.55	0.73
4	23	67	DSI	H02		0.55	0.68
4	24	57	DSI	H01		0.55	INR
4	28	63	DSI	H01		0.55	0.73
4	28	66	DSI	H01		0.55	0.48
4	28	68	DSI	H02		0.55	0.50
4	28	83	DSI	H02		0.55	0.90
4	34	47	DSI	H04		0.55	0.73
4	34	73	DSI	H03		0.55	0.52
4	38	30	DSI	H02		0.55	0.62
4	38	71	DSI	H03		0.55	0.51
4	39	42	DSI	H03		0.55	0.51
4	39	45	DSI	H03		0.55	0.43
4	39	50	DSI	H02		0.55	0.44
4	3	30	DSI	H01		0.54	0.51
4	5	41	DSI	H01		0.54	0.58
4	6	13	DSI	H02		0.54	0.47
4	6	84	DSI	H01		0.54	0.51
4	12	40	DSI	H03		0.54	0.51
4	13	52	DSI	H01		0.54	0.72
4	20	65	DSI	H01		0.54	0.65
4	21	48	DSI	H03		0.54	0.40

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	21	51	DSI	H02		0.54	0.74
4	22	41	DSI	H04		0.54	0.48
4	23	66	DSI	H02		0.54	0.66
4	27	67	DSI	H02		0.54	0.51
4	27	76	DSI	H05		0.54	0.50
4	28	62	DSI	H02		0.54	0.65
4	28	80	DSI	H02		0.54	0.56
4	31	40	DSI	H04		0.54	0.64
4	32	39	DSI	H01		0.54	0.47
4	32	67	DSI	H03		0.54	0.62
4	32	74	DSI	H03		0.54	0.50
4	34	51	DSI	H03		0.54	0.39
4	35	66	DSI	H02		0.54	0.65
4	36	64	DSI	H02		0.54	0.67
4	38	25	DSI	H02		0.54	0.54
4	40	33	DSI	H02		0.54	0.46
4	8	33	DSI	H01		0.53	0.57
4	12	41	DSI	H03		0.53	0.52
4	12	42	DSI	H01		0.53	0.53
4	15	63	DSI	H05		0.53	0.71
4	17	81	DSI	H01		0.53	0.70
4	21	15	DSI	H06		0.53	0.51
4	22	46	DSI	H03		0.53	0.64
4	27	77	DSI	H04		0.53	0.60
4	28	85	DSI	C01		0.53	0.52
4	36	44	DSI	H02		0.53	0.41
4	37	72	DSI	H01		0.53	0.59
4	38	49	DSI	H02		0.53	0.52
4	4	77	DSI	H01		0.52	0.56
4	6	21	DSI	H02		0.52	0.48
4	7	64	DSI	H01		0.52	0.51
4	15	63	DSI	H01		0.52	0.67
4	15	65	DSI	H01		0.52	0.63
4	16	45	DSI	H01		0.52	0.44
4	17	58	DSI	H01	Y	0.52	0.62
4	18	24	DSI	H02		0.52	0.42
4	20	27	DSI	H06		0.52	0.54
4	20	47	DSI	H02		0.52	0.51
4	20	61	DSI	H01		0.52	0.72
4	25	53	DSI	H02		0.52	0.44
4	34	77	DSI	H03		0.52	0.74
4	36	68	DSI	H02		0.52	0.62
4	38	34	DSI	H02		0.52	0.78
4	39	45	DSI	H02		0.52	0.51

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	5	9	DSI	H01		0.51	0.45
4	6	92	DSI	H01		0.51	0.58
4	9	16	DSI	H02		0.51	0.46
4	9	18	DSI	H02		0.51	0.47
4	9	83	DSI	H01		0.51	0.65
4	12	24	DSI	H02		0.51	0.55
4	12	81	DSI	H03		0.51	0.71
4	13	29	DSI	H02		0.51	0.52
4	13	77	DSI	H01		0.51	0.56
4	15	65	DSI	H03		0.51	0.63
4	17	88	DSI	H02		0.51	0.42
4	19	8	DSI	H01		0.51	0.31
4	20	40	DSI	H05	Y	0.51	0.68
4	21	12	DSI	H01		0.51	0.52
4	26	29	DSI	H02		0.51	0.49
4	28	81	DSI	H02		0.51	0.94
4	29	58	DSI	H01		0.51	1.15
4	32	20	DSI	H02		0.51	0.49
4	33	21	DSI	H02		0.51	0.43
4	33	24	DSI	H01		0.51	0.67
4	33	67	DSI	H02		0.51	0.92
4	34	65	DSI	H01		0.51	0.87
4	35	38	DSI	H03		0.51	0.51
4	38	32	DSI	H02		0.51	0.50
4	2	75	DSI	H01		0.50	0.52
4	4	16	DSI	H02		0.50	0.29
4	6	25	DSI	H02		0.50	0.55
4	8	45	DSI	H01		0.50	0.57
4	8	80	DSI	H02		0.50	0.73
4	9	11	DSI	H01		0.50	0.55
4	9	25	DSI	H01		0.50	0.47
4	10	42	DSI	H03		0.50	0.59
4	12	27	DSI	H01		0.50	0.55
4	18	64	DSI	H01		0.50	0.69
4	20	47	DSI	H01		0.50	0.42
4	26	27	DSI	H04		0.50	0.40
4	26	64	DSI	H01		0.50	0.49
4	27	14	DSI	H02		0.50	0.72
4	28	24	DSI	H04		0.50	0.64
4	32	70	DSI	H04		0.50	0.56
4	34	76	DSI	H01		0.50	0.52
4	39	68	DSI	H03		0.50	0.61
4	43	65	DSI	H01		0.50	0.31
4	2	56	DSI	H03		0.49	0.57

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	8	42	DSI	H03		0.49	0.66
4	12	20	DSI	H02		0.49	INR
4	23	14	DSI	C05		0.49	0.66
4	26	72	DSI	H01		0.49	0.53
4	27	63	DSI	H02		0.49	0.95
4	28	63	DSI	H02		0.49	0.76
4	28	79	DSI	H03		0.49	0.52
4	30	18	DSI	H02		0.49	0.47
4	37	35	DSI	H02		0.49	0.42
4	39	67	DSI	H02		0.49	0.30
4	4	8	DSI	H02		0.48	0.45
4	4	14	DSI	H03		0.48	0.29
4	5	91	DSI	H03		0.48	0.64
4	6	21	DSI	H01		0.48	0.43
4	12	33	DSI	H02	Y	0.48	0.51
4	12	38	DSI	H01		0.48	0.52
4	15	50	DSI	H01		0.48	0.93
4	15	69	DSI	H01		0.48	0.58
4	16	83	DSI	H01		0.48	0.73
4	17	32	DSI	H01		0.48	0.45
4	26	24	DSI	H02		0.48	0.51
4	26	83	DSI	H02		0.48	0.73
4	27	20	DSI	H01		0.48	0.46
4	30	54	DSI	H01		0.48	0.51
4	32	65	DSI	H02		0.48	0.62
4	34	30	DSI	H02		0.48	0.52
4	34	68	DSI	H02		0.48	0.52
4	36	48	DSI	H05		0.48	0.21
4	37	51	DSI	H02		0.48	0.42
4	37	63	DSI	H01		0.48	0.64
4	38	26	DSI	H02		0.48	0.45
4	3	16	DSI	H04		0.47	0.59
4	9	11	DSI	H03		0.47	0.50
4	10	29	DSI	H01		0.47	0.27
4	12	36	DSI	H02		0.47	0.42
4	19	34	DSI	H01		0.47	0.50
4	20	38	DSI	H01		0.47	0.46
4	22	24	DSI	H03		0.47	0.46
4	27	65	DSI	H03		0.47	0.38
4	27	83	DSI	H02		0.47	0.88
4	28	15	DSI	C07		0.47	0.44
4	28	20	DSI	H01		0.47	0.51
4	29	33	DSI	H02		0.47	0.56
4	29	38	DSI	H02		0.47	0.48

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	36	52	DSI	H03		0.47	0.30
4	37	45	DSI	H02		0.47	0.46
4	39	22	DSI	H01		0.47	0.39
4	39	27	DSI	H03		0.47	0.48
4	39	37	DSI	H04		0.47	0.43
4	4	8	DSI	H06		0.46	0.50
4	5	29	DSI	H01		0.46	0.48
4	8	41	DSI	H04		0.46	0.51
4	8	76	DSI	H03		0.46	0.52
4	11	68	DSI	H07		0.46	0.38
4	12	31	DSI	H02		0.46	0.76
4	12	74	DSI	H01		0.46	0.77
4	14	60	DSI	H01		0.46	0.60
4	14	81	DSI	H02		0.46	0.56
4	16	43	DSI	H01		0.46	0.45
4	18	32	DSI	H03		0.46	0.46
4	20	56	DSI	H02		0.46	0.41
4	22	45	DSI	H01		0.46	0.37
4	26	27	DSI	H03		0.46	0.45
4	29	28	DSI	H02		0.46	0.53
4	30	25	DSI	H02		0.46	0.50
4	32	49	DSI	H01		0.46	0.47
4	32	74	DSI	H01		0.46	0.49
4	38	27	DSI	H01		0.46	0.45
4	2	26	DSI	H01		0.45	0.32
4	3	22	DSI	H02		0.45	0.71
4	3	90	DSI	H02		0.45	0.66
4	4	22	DSI	H02		0.45	0.34
4	4	41	DSI	H01		0.45	0.52
4	5	29	DSI	H02		0.45	0.48
4	5	69	DSI	H01		0.45	0.49
4	6	94	DSI	H03		0.45	0.55
4	7	47	DSI	H01		0.45	0.48
4	10	34	DSI	H01		0.45	INR
4	17	55	DSI	H01		0.45	0.68
4	17	72	DSI	H01		0.45	0.79
4	20	25	DSI	H02		0.45	0.61
4	20	31	DSI	H03		0.45	0.37
4	22	71	DSI	H03		0.45	0.70
4	23	88	DSI	H02		0.45	0.63
4	25	47	DSI	H05		0.45	0.23
4	25	59	DSI	H01	Y	0.45	0.46
4	25	80	DSI	H01		0.45	0.69
4	26	10	DSI	H03		0.45	0.38

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	27	75	DSI	H03		0.45	0.59
4	28	64	DSI	H02		0.45	0.66
4	28	81	DSI	H05		0.45	0.52
4	29	57	DSI	H01		0.45	0.51
4	34	50	DSI	H04		0.45	0.57
4	35	72	DSI	H02		0.45	0.40
4	36	57	DSI	H03		0.45	0.49
4	38	55	DSI	H02		0.45	0.61
4	41	58	DSI	H02		0.45	0.65
4	4	8	DSI	H03		0.44	0.51
4	6	47	DSI	H01		0.44	0.41
4	8	4	DSI	H02		0.44	0.55
4	9	13	DSI	H01		0.44	0.41
4	9	34	DSI	H01		0.44	0.47
4	13	33	DSI	H01		0.44	0.46
4	14	85	DSI	H01		0.44	0.43
4	15	66	DSI	H01		0.44	0.34
4	18	21	DSI	H02		0.44	0.41
4	18	25	DSI	H01		0.44	0.47
4	19	50	DSI	H01		0.44	0.43
4	22	8	DSI	H02		0.44	0.59
4	23	42	DSI	H01		0.44	0.46
4	26	20	DSI	H02		0.44	0.47
4	29	27	DSI	H02		0.44	0.50
4	31	59	DSI	H02		0.44	0.55
4	31	59	DSI	H07		0.44	0.47
4	32	64	DSI	H01		0.44	0.49
4	35	46	DSI	H06		0.44	0.41
4	35	73	DSI	H01		0.44	0.57
4	42	38	DSI	H02		0.44	0.50
4	2	92	DSI	H01		0.43	0.58
4	3	4	DSI	H02		0.43	0.47
4	4	8	DSI	H05		0.43	0.62
4	4	91	DSI	H01		0.43	0.46
4	5	46	DSI	H01		0.43	0.49
4	5	46	DSI	H03		0.43	0.37
4	5	75	DSI	H03		0.43	0.51
4	5	77	DSI	H01		0.43	0.77
4	6	32	DSI	H02		0.43	0.31
4	6	87	DSI	H03		0.43	0.52
4	9	36	DSI	H01		0.43	0.49
4	11	84	DSI	H04		0.43	0.47
4	18	48	DSI	H01		0.43	0.41
4	18	69	DSI	H02		0.43	0.65

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	19	76	DSI	H02		0.43	0.60
4	22	59	DSI	H02	Y	0.43	0.73
4	26	85	DSI	H01		0.43	0.63
4	28	63	DSI	H03		0.43	0.61
4	28	76	DSI	H02		0.43	0.49
4	34	43	DSI	H01		0.43	0.53
4	36	47	DSI	H01		0.43	0.45
4	36	57	DSI	H02		0.43	0.56
4	37	73	DSI	H02		0.43	0.59
4	38	27	DSI	H04		0.43	0.44
4	2	54	DSI	H05		0.42	0.48
4	2	94	DSI	H01		0.42	0.52
4	3	34	DSI	H02		0.42	0.41
4	4	28	DSI	H03		0.42	0.51
4	8	25	DSI	H04		0.42	0.45
4	9	52	DSI	H01		0.42	0.41
4	9	74	DSI	H04		0.42	0.39
4	20	56	DSI	H01		0.42	0.83
4	23	45	DSI	H03		0.42	0.36
4	28	37	DSI	H02		0.42	0.48
4	29	35	DSI	H01		0.42	0.48
4	34	59	DSI	H02		0.42	0.45
4	35	74	DSI	H04		0.42	0.42
4	41	37	DSI	H03		0.42	0.47
4	41	65	DSI	C02		0.42	0.28
4	2	58	DSI	H01		0.41	0.43
4	3	71	DSI	H02		0.41	0.41
4	4	78	DSI	H02		0.41	0.42
4	5	31	DSI	H02		0.41	0.50
4	9	10	DSI	H02		0.41	0.38
4	9	12	DSI	H01		0.41	0.43
4	9	48	DSI	H05		0.41	0.46
4	12	15	DSI	H04		0.41	0.37
4	12	39	DSI	H01		0.41	0.48
4	13	46	DSI	H02		0.41	0.30
4	18	17	DSI	H01		0.41	0.47
4	18	51	DSI	H05		0.41	0.46
4	20	38	DSI	H06		0.41	0.34
4	23	61	DSI	H02		0.41	0.34
4	25	41	DSI	H02		0.41	0.40
4	26	20	DSI	H04		0.41	0.43
4	26	31	DSI	H03		0.41	0.48
4	27	22	DSI	H04		0.41	0.37
4	33	55	DSI	H01		0.41	0.64

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	38	21	DSI	H01		0.41	0.45
4	39	37	DSI	H03		0.41	0.49
4	39	41	DSI	H03		0.41	0.47
4	2	84	DSI	H01		0.40	0.37
4	3	87	DSI	H01		0.40	0.51
4	5	1	DSI	H05		0.40	0.49
4	6	7	DSI	H03		0.40	0.46
4	9	16	DSI	H03		0.40	0.45
4	13	68	DSI	H02		0.40	0.54
4	15	50	DSI	H02		0.40	0.47
4	17	9	DSI	H02		0.40	0.37
4	17	13	DSI	H04		0.40	0.22
4	17	85	DSI	H01		0.40	0.50
4	18	16	DSI	H05		0.40	0.37
4	22	37	DSI	H02		0.40	0.41
4	23	86	DSI	H03		0.40	0.54
4	27	18	DSI	H03		0.40	0.30
4	27	21	DSI	H03		0.40	0.49
4	32	49	DSI	H02		0.40	0.54
4	34	56	DSI	H01		0.40	0.50
4	34	65	DSI	H03		0.40	0.58
4	34	77	DSI	H02		0.40	INR
4	36	59	DSI	H01		0.40	0.42
4	36	72	DSI	H02		0.40	0.20
4	40	29	DSI	H03		0.40	0.31
4	40	69	DSI	H02		0.40	0.41
4	43	53	DSI	C02		0.40	0.35
4	2	54	DSI	H02		0.39	0.45
4	5	29	DSI	H04		0.39	0.36
4	6	22	DSI	H02		0.39	0.51
4	6	29	DSI	H01		0.39	0.44
4	13	43	DSI	H03		0.39	0.38
4	13	48	DSI	H04		0.39	0.47
4	20	20	DSI	H04		0.39	0.37
4	26	21	DSI	H03		0.39	0.42
4	31	78	DSI	H01		0.39	0.41
4	34	48	DSI	H01		0.39	0.36
4	35	35	DSI	H02		0.39	0.38
4	39	47	DSI	H02		0.39	0.30
4	39	71	DSI	H02		0.39	0.61
4	3	19	DSI	H02		0.38	0.35
4	8	40	DSI	H01		0.38	0.40
4	11	69	DSI	H04		0.38	0.40
4	13	46	DSI	H03		0.38	0.31



SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	17	78	DSI	H01		0.38	0.44
4	19	56	DSI	H01		0.38	0.66
4	20	49	DSI	H01		0.38	0.43
4	22	17	DSI	C05		0.38	0.62
4	23	44	DSI	H03		0.38	0.40
4	24	62	DSI	H02		0.38	0.46
4	28	33	DSI	H03		0.38	0.37
4	29	63	DSI	H01		0.38	0.49
4	30	71	DSI	H01		0.38	0.60
4	30	76	DSI	C06		0.38	0.45
4	31	54	DSI	H01		0.38	0.54
4	2	85	DSI	H01		0.37	0.46
4	4	30	DSI	H03		0.37	0.50
4	7	68	DSI	H01		0.37	0.48
4	8	39	DSI	H03		0.37	0.38
4	13	62	DSI	H01		0.37	0.47
4	18	41	DSI	H01		0.37	0.42
4	18	42	DSI	H01		0.37	0.37
4	20	39	DSI	H03		0.37	0.39
4	21	60	DSI	H02		0.37	0.43
4	23	43	DSI	H02		0.37	0.35
4	27	17	DSI	H02		0.37	0.45
4	27	85	DSI	H05		0.37	0.59
4	29	59	DSI	H06		0.37	0.43
4	40	71	DSI	H03		0.37	0.54
4	45	55	DSI	C01		0.37	0.40
4	4	28	DSI	H06		0.36	0.36
4	9	50	DSI	H01		0.36	0.42
4	18	42	DSI	H04		0.36	0.37
4	19	12	DSI	H01		0.36	0.31
4	23	54	DSI	H06		0.36	0.76
4	28	17	DSI	H02		0.36	0.40
4	29	14	DSI	H01		0.36	0.37
4	36	60	DSI	H03		0.36	0.34
4	45	48	DSI	C01		0.36	0.24
4	2	85	DSI	H02		0.35	0.58
4	8	14	DSI	H02		0.35	0.46
4	8	45	DSI	H03		0.35	0.41
4	8	62	DSI	H01		0.35	0.43
4	9	77	DSI	C04		0.35	0.38
4	20	25	DSI	H06		0.35	0.48
4	20	37	DSI	H04		0.35	0.37
4	22	17	DSI	C04		0.35	0.47
4	25	46	DSI	C05		0.35	0.34

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	27	51	DSI	H02		0.35	0.48
4	28	76	DSI	H01		0.35	0.39
4	30	74	DSI	C04		0.35	0.37
4	32	44	DSI	H04		0.35	1.17
4	32	73	DSI	H01		0.35	0.59
4	35	69	DSI	H01		0.35	0.31
4	36	26	DSI	H04		0.35	0.35
4	38	24	DSI	H03		0.35	0.42
4	40	69	DSI	C01		0.35	0.33
4	41	58	DSI	H01		0.35	0.39
4	8	13	DSI	H05		0.34	0.40
4	8	44	DSI	H02		0.34	0.40
4	12	26	DSI	H02		0.34	0.46
4	12	39	DSI	H04		0.34	0.35
4	17	27	DSI	H03		0.34	0.22
4	23	63	DSI	H02		0.34	0.32
4	25	67	DSI	H04		0.34	0.38
4	27	74	DSI	H03		0.34	0.32
4	28	84	DSI	H01		0.34	0.38
4	30	76	DSI	C05		0.34	0.33
4	35	69	DSI	C06		0.34	0.29
4	43	44	DSI	C05		0.34	0.32
4	8	6	DSI	H03		0.33	0.38
4	8	36	DSI	H03		0.33	0.41
4	9	74	DSI	H05		0.33	0.44
4	12	11	DSI	H03		0.33	0.32
4	12	59	DSI	H05		0.33	0.51
4	23	12	DSI	H01		0.33	0.71
4	24	15	DSI	C05		0.33	0.47
4	26	51	DSI	H01		0.33	0.47
4	27	18	DSI	H02		0.33	0.51
4	27	66	DSI	H04		0.33	0.33
4	28	40	DSI	H02		0.33	0.47
4	28	47	DSI	H02		0.33	0.46
4	28	74	DSI	H02		0.33	0.36
4	29	76	DSI	C05		0.33	0.25
4	36	47	DSI	H04		0.33	0.33
4	36	54	DSI	H04		0.33	0.31
4	13	59	DSI	H02		0.32	0.48
4	17	90	DSI	H01		0.32	0.31
4	18	15	DSI	H03		0.32	0.24
4	18	16	DSI	H06		0.32	0.35
4	18	36	DSI	H03		0.32	0.41
4	24	26	DSI	C02		0.32	0.43

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	27	61	DSI	H01		0.32	0.14
4	27	65	DSI	H02		0.32	0.50
4	27	83	DSI	H04		0.32	0.49
4	34	32	DSI	H02		0.32	0.49
4	36	52	DSI	H01		0.32	0.34
4	5	1	DSI	H01		0.31	0.24
4	8	8	DSI	H02		0.31	0.39
4	8	35	DSI	H04		0.31	0.33
4	20	60	DSI	H03		0.31	0.53
4	20	69	DSI	H02		0.31	0.28
4	21	43	DSI	H01		0.31	0.29
4	21	85	DSI	H01		0.31	0.35
4	22	17	DSI	H06		0.31	0.45
4	26	27	DSI	H06		0.31	0.34
4	28	77	DSI	H02		0.31	0.52
4	30	54	DSI	H02		0.31	0.46
4	30	81	DSI	H02		0.31	0.40
4	32	65	DSI	H01		0.31	0.48
4	39	38	DSI	C05		0.31	0.48
4	39	41	DSI	H04		0.31	0.28
4	40	59	DSI	C03		0.31	0.34
4	3	35	DSI	C03		0.30	0.39
4	8	16	DSI	H03		0.30	0.36
4	8	44	DSI	H03		0.30	0.40
4	9	31	DSI	H01		0.30	0.41
4	13	51	DSI	H01		0.30	0.49
4	22	18	DSI	H02		0.30	0.80
4	26	31	DSI	H06		0.30	0.24
4	29	48	DSI	C06		0.30	0.39
4	29	71	DSI	H05		0.30	0.16
4	30	80	DSI	H06		0.30	0.45
4	31	51	DSI	H06		0.30	0.37
4	35	43	DSI	H04		0.30	0.25
4	35	62	DSI	H02		0.30	0.50
4	39	42	DSI	H04		0.30	0.29
4	42	42	DSI	H03		0.30	0.24
4	2	9	DSI	C04		0.29	0.29
4	2	84	DSI	H02		0.29	0.25
4	5	37	DSI	H02		0.29	0.35
4	12	74	DSI	H02		0.29	0.25
4	13	17	DSI	H03		0.29	0.28
4	13	49	DSI	H03		0.29	0.40
4	18	38	DSI	H03		0.29	0.32
4	20	57	DSI	H02		0.29	0.49

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	20	66	DSI	H02		0.29	0.19
4	23	40	DSI	H01		0.29	0.28
4	26	43	DSI	H02		0.29	0.31
4	27	74	DSI	C05		0.29	0.23
4	27	84	DSI	H01		0.29	0.31
4	35	65	DSI	H03		0.29	0.33
4	37	65	DSI	H02		0.29	0.50
4	38	74	DSI	H03		0.29	0.60
4	8	18	DSI	H03		0.28	0.29
4	9	15	DSI	H06		0.28	0.32
4	12	75	DSI	H02		0.28	0.45
4	20	56	DSI	H03		0.28	0.37
4	23	41	DSI	H01		0.28	0.48
4	23	56	DSI	H02		0.28	0.52
4	25	75	DSI	H05		0.28	0.47
4	26	20	DSI	H03		0.28	0.26
4	26	48	DSI	H01		0.28	0.35
4	26	71	DSI	H03		0.28	0.44
4	27	13	DSI	C05		0.28	0.38
4	27	53	DSI	H01		0.28	0.49
4	36	46	DSI	H02		0.28	0.17
4	37	37	DSI	H04		0.28	0.23
4	8	7	DSI	H02		0.27	0.26
4	9	15	DSI	H01		0.27	0.36
4	9	89	DSI	H01		0.27	0.61
4	15	61	DSI	H01		0.27	0.68
4	20	59	DSI	H05		0.27	0.25
4	23	73	DSI	H06		0.27	0.34
4	28	78	DSI	H02		0.27	0.45
4	29	27	DSI	H07		0.27	0.31
4	33	54	DSI	H01		0.27	0.37
4	34	33	DSI	H03		0.27	0.33
4	37	71	DSI	H01		0.27	0.40
4	38	38	DSI	H04		0.27	0.29
4	38	74	DSI	H04		0.27	0.31
4	39	66	DSI	H01		0.27	0.27
4	20	51	DSI	H03		0.26	0.36
4	20	57	DSI	H04		0.26	0.28
4	28	26	DSI	H04		0.26	0.24
4	28	79	DSI	H04		0.26	0.59
4	28	81	DSI	H01		0.26	0.39
4	37	63	DSI	H03		0.26	0.23
4	7	33	DSI	H03		0.25	0.27
4	7	62	DSI	H01		0.25	0.37

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	8	27	DSI	H04		0.25	0.26
4	8	36	DSI	H02		0.25	0.32
4	19	53	DSI	H04		0.25	0.36
4	19	87	DSI	H03		0.25	0.38
4	37	47	DSI	H02		0.25	0.21
4	8	49	DSI	H01		0.24	0.30
4	11	69	DSI	H03		0.24	0.33
4	15	22	DSI	C05		0.24	0.31
4	16	35	DSI	H01		0.24	0.39
4	18	40	DSI	H05		0.24	0.26
4	20	17	DSI	H06		0.24	0.25
4	20	19	DSI	H02		0.24	0.26
4	20	47	DSI	H06		0.24	0.24
4	26	47	DSI	H03		0.24	0.19
4	29	35	DSI	H02		0.24	0.31
4	32	63	DSI	H04		0.24	0.65
4	35	65	DSI	C03		0.24	0.24
4	36	67	DSI	H06		0.24	0.24
4	11	8	DSI	H05		0.23	0.19
4	18	15	DSI	H04		0.23	0.27
4	20	25	DSI	H07		0.23	0.16
4	20	53	DSI	H02		0.23	0.47
4	24	10	DSI	H02		0.23	0.22
4	32	28	DSI	H04		0.23	0.18
4	32	65	DSI	H03		0.23	0.29
4	37	67	DSI	C05		0.23	0.46
4	38	62	DSI	H04		0.23	0.29
4	2	86	DSI	H03		0.22	0.31
4	5	1	DSI	H04		0.22	0.23
4	6	69	DSI	H01		0.22	0.33
4	8	41	DSI	H05		0.22	0.16
4	8	79	DSI	H05		0.22	0.24
4	30	17	DSI	H03		0.22	0.31
4	35	33	DSI	H03		0.22	0.29
4	37	62	DSI	H04		0.22	0.33
4	45	49	DSI	C01		0.22	0.22
4	6	48	DSI	H04		0.21	0.28
4	13	36	DSI	H02		0.21	0.22
4	17	21	DSI	H05		0.21	0.27
4	17	56	DSI	H02		0.21	0.45
4	27	76	DSI	H02		0.21	0.31
4	28	24	DSI	H06		0.21	0.22
4	36	46	DSI	H03		0.21	0.18
4	16	90	DSI	H01		0.20	0.22

SG	Row	Col	Ind	Elev	Plugged <sup>(1)</sup>	EOC-15 Volts	EOC-14 Volts
4	19	58	DSI	H07		0.20	0.22
4	20	36	DSI	H02		0.20	0.28
4	38	26	DSI	H04		0.20	0.22
4	9	33	DSI	H02		0.19	0.23
4	14	13	DSI	H02		0.19	0.20
4	20	58	DSI	H06		0.19	0.29
4	24	22	DSI	H03		0.19	0.20
4	26	57	DSI	H07		0.19	0.21
4	6	13	DSI	H03		0.18	0.20
4	38	25	DSI	H05		0.18	0.29
4	18	11	DSI	H04		0.17	0.26
4	8	51	DSI	H04		0.16	0.13
4	17	83	DSI	H01		0.16	0.45
4	37	46	DSI	C06		0.16	0.38
4	8	43	DSI	H01	Y	0.15	0.25
4	8	50	DSI	H03		0.15	0.20
4	27	63	DSI	H03		0.15	0.34
4	5	87	DSI	H04		0.11	0.24
4	30	28	DSI	H04		0.11	0.14

- (1) All indications greater than or equal to 2 volts at EOC-15 were subject to a +Point™ inspection. All DSI indications greater than 2 volts, confirmed by +Point™ inspection, were repaired by plugging.
- (I) Imputed voltage. The TSP intersection did not have a DSI, but did have a SAI. The EOC-15 DSI voltage was imputed from a statistical evaluation of DSI-SAI voltages.
- INR = Indication Not Reportable

## Appendix B

### Calculations Based on Preliminary Addendum 7 Parameters

The projections for EOC-16 in the main body of this report used the tube burst and leakage correlations of Addendum 6 to EPRI Report NP-7480-L (Reference 6). Preliminary Addendum 7 parameters were available, but were not formally released when this report was completed.

Addendum 7 was developed to include the results from the two TSP regions from the EOC-14 Sequoyah Unit 2 pulled tube laboratory examination. Due to damage to the flaws in the pulled tube as a result of the tube pulling operation, the crack indications could not be meaningfully burst and leak tested. To assess consistency with the ODSCC database of Addendum 6, based on test results, calculations of the burst pressure and SLB leak rates were performed. It was subsequently determined that the ARC burst pressure correlation of Addendum 6 would not have been significantly changed if it had been feasible to burst test the two TSP intersections. The leak rates were not significantly affected by including uncertainties in the ANL tearing model. Table B-1 summarizes the changes made to the parameters provided in Table 4-3. The parameters provided in Table 4-1 and Table 4-2 are not changed in Addendum 7.

Table B-1. Effect of Additional Data on the 7/8" Tube Probability of Leak Correlation			
$\Pr(Leak) = \frac{1}{1 + e^{-[b_1 + b_2 \log(Volts)]}}$			
Parameter	Addendum 6 Database Value	Addendum 7 Database Value	New / Old Ratio
Logistic Intercept, $b_1$	-5.0407	-4.9847	98.9%
Logistic Slope, $b_2$	7.5434	7.6110	100.9%
Intercept Variance, $V_{11}^{(1)}$	1.3311	1.2904	96.9%
Covariance, $V_{12}$	-1.7606	-1.7499	99.4%
Slope Variance, $V_{22}$	2.7744	2.8181	101.6%
Number of Data, $N$	118	120	
Deviance	32.37	33.66	104.0%
Pearson SD	61.1%	62.9%	103.0%
MSE	0.279	0.285	102.2%
Notes: (1) Parameters $V_{ij}$ are the elements of the covariance matrix of the coefficients, $\beta_i$ , of the regression equation.			

### Condition Monitoring Results

The voltage distributions shown in Figure 5-1 through Figure 5-4 remain unchanged using Addendum 7 parameters. Table 5-1 changed slightly, as shown in Table B-2. In Table B-2, the leak rates have increased by 2-6% using Addendum 7 parameters. The burst probabilities have changed as well, simply because a different set of random numbers were used; in all cases the burst probability has changed from a very small number to a very small number.

Table B-2: Analysis Results for EOC-15 Voltage Distributions with NDE Uncertainty, Using Addendum 7 Parameters

SG	Number of Monte Carlo Trials	Number of Indications	Maximum Volts Measured	Burst Probability 95% conf.	95/95 SLB Leak Rate, gpm
1	250,000	540	1.69	$4.21 \times 10^{-5}$	0.128
2	250,000	602	1.84	$6.28 \times 10^{-5}$	0.146
3	250,000	729	2.41	$1.21 \times 10^{-4}$	0.306
4	250,000	1352	2.77	$1.12 \times 10^{-4}$	0.370

### Operational Assessment Results

The distributions provided in Table 6-1 and Table 6-2, as well as those shown in Figure 6-1 through Figure 6-4 remain unchanged using Addendum 7 parameters. Table 6-3 changed slightly, as shown in Table B-3. In Table B-3, the leak rates have increased by 4-5% using Addendum 7 parameters. The burst probabilities have changed as well, simply because a different set of random numbers were used; in all cases the burst probability has changed from a very small number to a very small number.

Table B-3: EOC-16 Predicted Results, Using Addendum 7 Parameters

SG	Number of Monte Carlo Trials	Number of Indications	Maximum Volts*	Burst Probability 95% Confidence	95/95 SLB Leak Rate (gpm)
1	250,000	890	3.8	$2.22 \times 10^{-4}$	0.535
2	250,000	994.33	3.8	$2.04 \times 10^{-4}$	0.603
3	250,000	1191	4.1	$4.90 \times 10^{-4}$	1.030
4	250,000	2231.33	4.1	$5.11 \times 10^{-4}$	1.410

\* Voltage where tail is accumulated to 0.3 indications



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## **Conclusions**

Using the preliminary Addendum 7 parameters, all steam generators are below the burst acceptance criterion of  $1.0 \times 10^{-2}$ , and the Sequoyah Unit 2 leakage criterion of 3.7 gpm (Reference 2).

**ENCLOSURE 2**

**TENNESSEE VALLEY AUTHORITY  
SEQUOYAH NUCLEAR PLANT**

**STEAM GENERATOR  
W\* ALTERNATE REPAIR CRITERIA  
UNIT 2 CYCLE 15  
90-DAY REPORT**

During the determination of the Postulated Main Steam Line Break (MSLB) primary to secondary leakage, the indications at the top of tubesheet were evaluated for W\* leakage. The outside diameter (OD) indications were either above the top-of-tubesheet and or above the associated Bottom of the Wextex Transition (BWT) and therefore, not included.

The indications of primary water stress corrosion cracking (PWSCC) at the top-of-tubesheet were included in the condition monitoring W\* leakage evaluation regardless of whether or not they were above the BWT. The location of upper crack tip was subtracted for the location of the BWT and then this value had the non-destructive examination (NDE) uncertainty subtracted. If the value was negative, it was then assumed to be zero.

The condition monitoring postulated leakage was determined for each steam generator (SG). To determine the condition monitoring leakage assumed in the 0 inch to 8 inches below the BWT region for each of the SGs, the indications were binned into the following bins; 0 inch to 1 inch, 1 inch to 2 inches, 2 inches to 3 inches, and 3 inches to 4 inches, etc. The leakage value for each of the bins was obtained from WCAP-14797, Rev. 2, Figure 6.4-3. The quantity of indications in each bin was multiplied by the greatest leakage value for the bin (i.e., the 1-inch to 2-inch bin was multiplied by the 1 inch below the BWT leakage value from the Figure 6.4-3). The leakage value for the bins was summed to obtain the total in the 8 inches to 12 inches below the top of tubesheet region. To determine the condition monitoring assumed leakage in the 8 inches to 12 inches below the hotleg-top-of tubesheet (HTS) region, the total historical count of indications 0 inch to 8 inches below the top-of-tubesheet (TTS) from all four SGs plus the number of detected indications 0 inch to 8 inches below the TTS for all four SGs for the present outage were combined and 25 percent of this total was applied to each of the four SGs to determine the assumed quantity of indications in the 8 inches to 12 inches below the TTS region. This assumed quantity of indications was multiplied by 0.0045 gallons per minute (gpm) to obtain the 8 inches to 12 inches below the TTS leakage. To determine the condition monitoring assumed leakage in the greater than 12 inches below the HTS region, the quantity of tubes in service in the specific SG was used. This quantity of tubes was multiplied by 0.00009 gpm to obtain the W\* leakage for the greater than 12 inches below the HTS region for each SG.

Operational Assessment assumed leakage was determined for a faulted SG. To determine the Operational Assessment assumed leakage in the 0 inch to 8 inches below the TTS region, an assumed quantity of undetected indications was determined by utilizing the largest quantity over all four SG of indications in each of the bins (0 inch to 1 inch, 1 inch to 2 inches, 2 inches to 3 inches, and 3 inches to 4 inches, etc.) and dividing that greatest bin quantity by 0.6 (assumed POD) and subtracting the quantity of tubes plugged. (A minimum of one indication was assumed in each bin for conservatism.) The leakage value for each of the bins was obtained from WCAP-14797, Rev. 2, Figure 6.4-3. The quantity of indications in each bin was multiplied by the greatest leakage value for the bin (i.e., the 1-inch to 2-inch bin was multiplied by the 1-inch below the BWT leakage value from the Figure 6.4-3). The leakage value for the bins was summed to obtain the total in the 0 inch to 8 inches below TTS region. To determine the operational assessment assumed leakage in the 8 inches to 12 inches below the HTS region, the total historical count of indications 0 inch to 8 inches below the TTS from all four SGs plus the number of projected indications 0 inch to 8 inches below the TTS for all four SGs for the upcoming fuel cycle was combined and 25 percent of this total determined the assumed quantity of indications in the 8 inches to 12 inches below the TTS region for the faulted SG. This

assumed quantity of indications was multiplied by 0.0045 gpm to obtain the 8 inches to 12 inches below the TTS leakage. To determine the operational assessment assumed leakage in the greater than 12 inch below the HTS region, the quantity of tubes in service in the least plugged SG was used. This quantity of tubes was multiplied by 0.00009 gpm to obtain the W\* leakage for the greater than 12 inches below the HTS region for the faulted SG.

The SQN Unit 2 primary to secondary leakage limit during the postulated MSLB accident is 3.7 gpm. Table 1 shows the leakage value is below this limit and therefore acceptable.

Calculated Main Steam Line Break Primary to Secondary Leakage  
Table 1

Condition Monitoring	Leakage (gpm at MSLB)			
	SG1	SG2	SG3	SG4
ARC GL 95-05 Leakage	0.121	0.143	0.294	0.359
W* 0"-8" Leakage	0.000	0.000	0.050	0.100
W* 8"-12" Leakage	0.149	0.149	0.149	0.149
W* >12" Leakage	0.297	0.289	0.292	0.297
All other sources	0.000	0.000	0.000	0.008
Total Leakage	0.567	0.580	0.785	0.900
Operational Assessment				Postulated Worst SG (gpm)
ARC GL 95-05 Leakage				1.340
W* 0"-8" Leakage				0.146
W* 8"-12" Leakage				0.167
W* >12" Leakage				0.297
All other sources				0.008
Total Leakage				1.958

#### W\* Inspection Assessment

W\* Alternate Repair Criteria requires an assessment be performed to determine whether the results of the inspection were consistent with the expectations. These expectations are with respect to the number of flaws and flaw severity. The quantity of flaws found in the 4 inches to 8 inches regions below the top of the tubesheet is expected to be less than 25 percent of the total number of flaws. Table 2 is a listing of the PWSCC top-of-tubesheet indications subject to the W\* assessment. None were in the 4 inches to 8 inches region below TTS and therefore were less than 25 percent of the total number of flaws.

Also, an assessment is required to be performed for whether W\* identified newly initiated severe indications of cracking and if so include their potential leakage rate in the assessment. Twenty-five W\* region indications were predicted to be discovered during the U2C15 inspection. A total of three PWSCC TTS indications were detected in the W\* region. Zero indications were discovered in the 4 inches to 8 inches region. TVA utilized a

regression of the total quantity of axial and circumferential indications since U2C8 and predicts that 15 W\* region indications will be detected during the next inspection (U2C16).

The following is an assessment of the severity of the flaws. The only PWSCC HTS circumferential indication detected U2C15 was 0.33 inches below the top-of-tubesheet. Sizing of this indication indicates the Max Depth was 19 percent through wall and 46.5 degrees circumferential extent. The quantity of circumferential indications (one) detected during U2C15 is the same quantity of circumferential indications detected during U2C14, less than the two indication detected during U2C13, less than the four circumferential indications detected during U2C12 and less than the six circumferential indications detected during U2C11. There is a definite downward trend in the quantity of circumferential indications over the last five outages. Two axial indications were detected during U2C15 and both were within four inches of TTS region. During the U2C14 inspection, two axial indications were detected but were located greater than eight inches below TTS. The quantity of axial indications identified during U2C15 is the same as U2C14; however, the U2C15 indications were within four inches of TTS. One of the axial indications was greater than the 0.5 volt quick screen and was 0.23 inches in length and had a maximum depth of 69 percent and was located 2.24 inches below TTS. The tubesheet would prevent this axial indication from having a rupture. The second axial indication was less than the 0.5 volt quick screen and therefore inherently maintained structural and leakage integrity. During the U2C13 inspection, nine axial indications were detected and of these, three had greater depths and three had greater lengths than the largest detected during U2C15. The severity is consistent with past inspections and therefore not considered severe.

SN Unit 2 eddy current examinations of the HTS had a minimum depth of 8 inches below TTS. The vendors examined a greater extent (typically one or two inches) in order to ensure the minimum 8 inches was achieved. Because the extra extent down into the tubesheet detected no additional indications, TVA believes that this provides some assurance that the methodology for predicting the quantity of indications in the 8 inches to 12 inches below TTS is conservative.

Based on the preceding information, none of the top-of tubesheet indications were categorized as severe, and therefore no changes were made to include additional leakage in the leakage model for W\*.

Based on the above, it is concluded that the severity of flaws and quantities of flaws are consistent with the expectations for indications within the W\* distance.

W\* Indications  
Table 2

SG	Row	Column	Location	BWT	MV	Degradation Mechanism
3	1	56	HTS-0.36	HTS-0.43	0.36	PWSCC HTS AXIAL
4	28	50	HTS-2.24	HTS-0.37	0.61	PWSCC HTS AXIAL
4	20	76	HTS-0.33	HTS-0.03	0.69	PWSCC HTS CIRC

Notes: The circumferential indication was greater than the 0.5 volts quick screen but less than 180 degrees circumferential extent. The axial indication greater than the 0.5 volt quick screen was below TTS which precludes burst. The other axial indication was less than the quick screen of 0.5 volts which the EPRI in-situ pressure test guidelines states preclude burst.