

SITE PROBLEM

CLOSED

REPORT TRANSMITTAL

CRYSTAL RIVER-1

**** CLEARED **** MAY 21 1977

TO: ~~CHANGE CONTROL~~ For Distribution

S. H. Flein - Quality Assurance

Central Engineering Files

B.N. BONSBILL - Task Engineer

G.T. FARBERMAN - Project Manager

S. J. ENGEL

FILE: 13-7-445

CONTRACT NO: 620-0007

SPR 445

TITLE OTSG's Boiled Dry

DATE: 5-19-77

STATUS CODE C

- _____ E. L. Logan - FLORIDA _____
- _____ L. C. Rogers - MET. ED. _____
- _____ F. R. Faist - TOLEDO _____
- _____ J. R. Bohart - Int'l. Support _____
- _____ J. L. Donnell - OFR _____
- _____ B. A. Karrasch - Plant Integration _____

Attached is one copy of Site Problem Report No. 445 which was processed on Contract 620-0007. Future contracts have been reviewed for the potential of a similar problem. This problem ~~is~~/is not considered applicable to other contracts _____.

REMARKS: _____

Sony J. B. [Signature]

NUCLEAR SERVICE SUPPORT ENGINEER

CLEARED

7810040 396

MAY 31 1977

PDS-21091(8-76)

SITE PROBLEM REPORT

BARCOCK & WILCOX

CUSTOMER Florida Power Corp.	SYSTEM NO. / DATE E-35147 / 5/23/77	DOC. ID. CONT. NO. / SPV NO. / ALV. NO. 13 620/0007 005
VENDOR Barcock & Wilcox	P.A. NO.	PART NO. / TASK NO. / GROUP NO. / SEQ. NO. 55 01 01
TITLE (MAX 30 CHARACTERS) OTSG's Boiled Dry		PROBLEM CONTACT R. Hamilton

DESCRIPTION OF PROBLEM:

PROBLEM IDENTIFICATION

SEE ATTACHED SHEET CLOSED

ALSO SEE CR III TRIP REPORTS 12, 13, & 14.

STATUS-ACTION TO DATE, INCLUDING PERSONS CONTACTED:

N/A

FURTHER ACTION RECOMMENDED BY SITE PERSONNEL:

N/A

RESOLUTION:

INFORMATION ONLY

RESOLUTION

PREPARED BY <i>Randy A. Clouse</i>	DATE 5-5-77	APPROVED BY <i>R. J. Faubus</i>	DATE 5/18/77
REVIEWED BY <i>R. J. Faubus</i>	DATE 5/18/77		

COST CATEGORY <input type="checkbox"/> NORM <input type="checkbox"/> OTHER	FIELD CHANGE REQ <input type="checkbox"/> YES <input type="checkbox"/> NO	F.C.A. NO. 04-	SIGNIF. DEFICIENCY <input type="checkbox"/> YES <input type="checkbox"/> NO
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COMPLETION

SITE COMPLETION REPORT:

Issued for "Information Only".

DEVIATIONS:

NONE SFR REV NO.

DATE COMPLETED:

COMPLETED BY DATE

E. L. Hogan 4/29/77

SHEET OF

DESCRIPTION OF PROBLEM

On April 22, 1977 and April 23, 1977, during the conduct of "Shut-down from Outside the Control Room" and "Loss of Offsite Power" tests, the OTSG's were apparently boiled dry on three separate occasions.

The first occurrence was during an attempt to shut down the plant from outside the control room. Reactor power was approximately 20% when the test was initiated. After the reactor and turbine were tripped, the emergency steam driven feed pump auto started. Tave increased to 597° and OTSG levels fell to 0". The test was aborted six minutes after its start and plant control was returned to the control room. An investigation revealed that the emergency feed pump was getting only approximately 100 psig auxiliary steam. A subsequent test showed that this would only generate approximately 500 psig discharge pressure. Since Tave was 597 and OTSG outlet pressure was 780 psig, it is assumed both OTSG's were boiled dry.

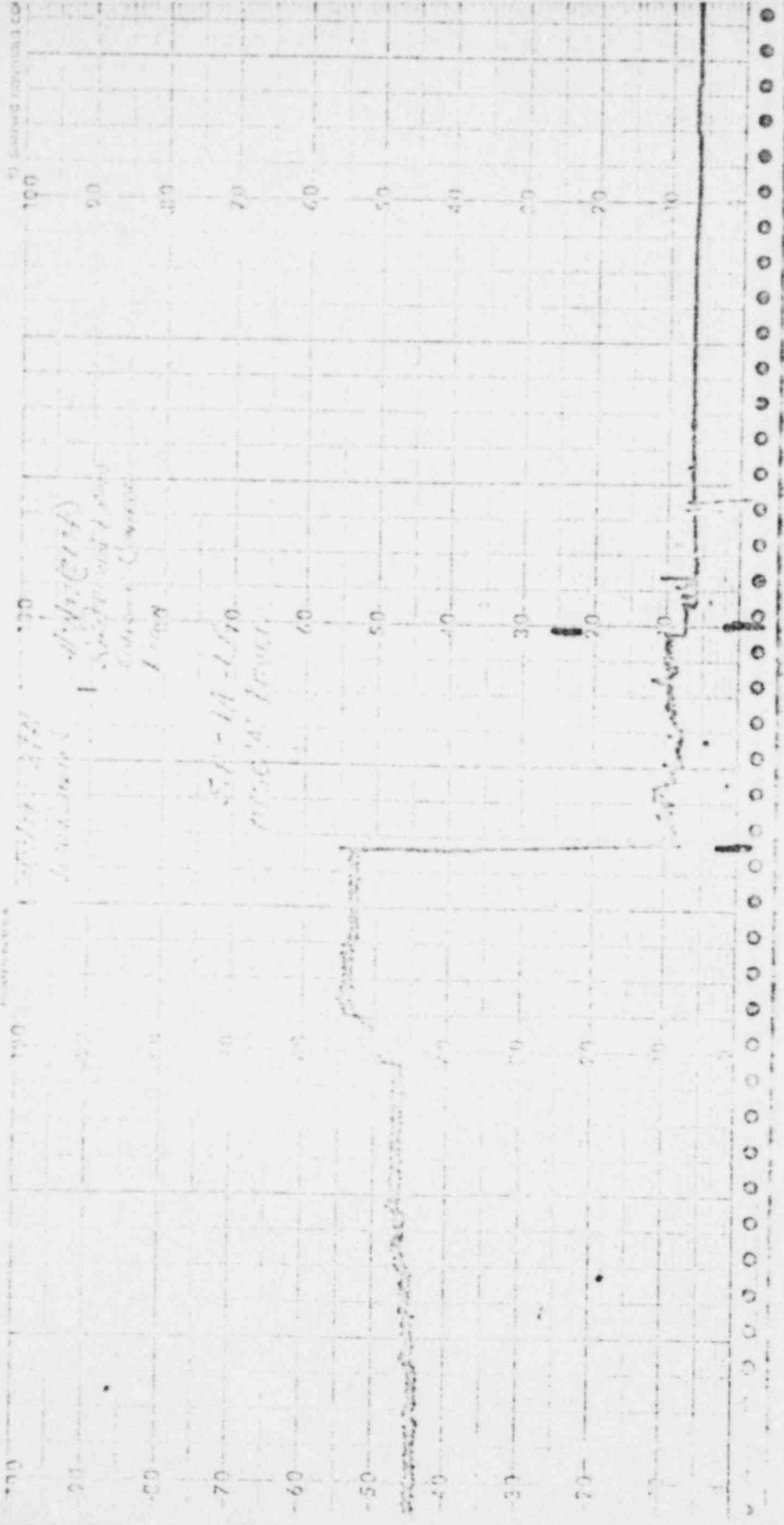
The second occurrence was during a retest of shutdown from outside the control room. The main feed pump was manually tripped one minute before the reactor was tripped. The electric driven emergency feedwater pump was started four minutes after the main FW pump was tripped. During the interim Tave increased to 597°F and both Lolo level alarms were received on the OTSG's. The steam driven EFWP was then started and Lolo level alarms were cleared and Tave began to decrease. The test was continued and declared complete after 30 minutes. It is believed the OTSG's were boiled dry when Tave was at 597°F and both outlet pressures were 820 and 865 psig.

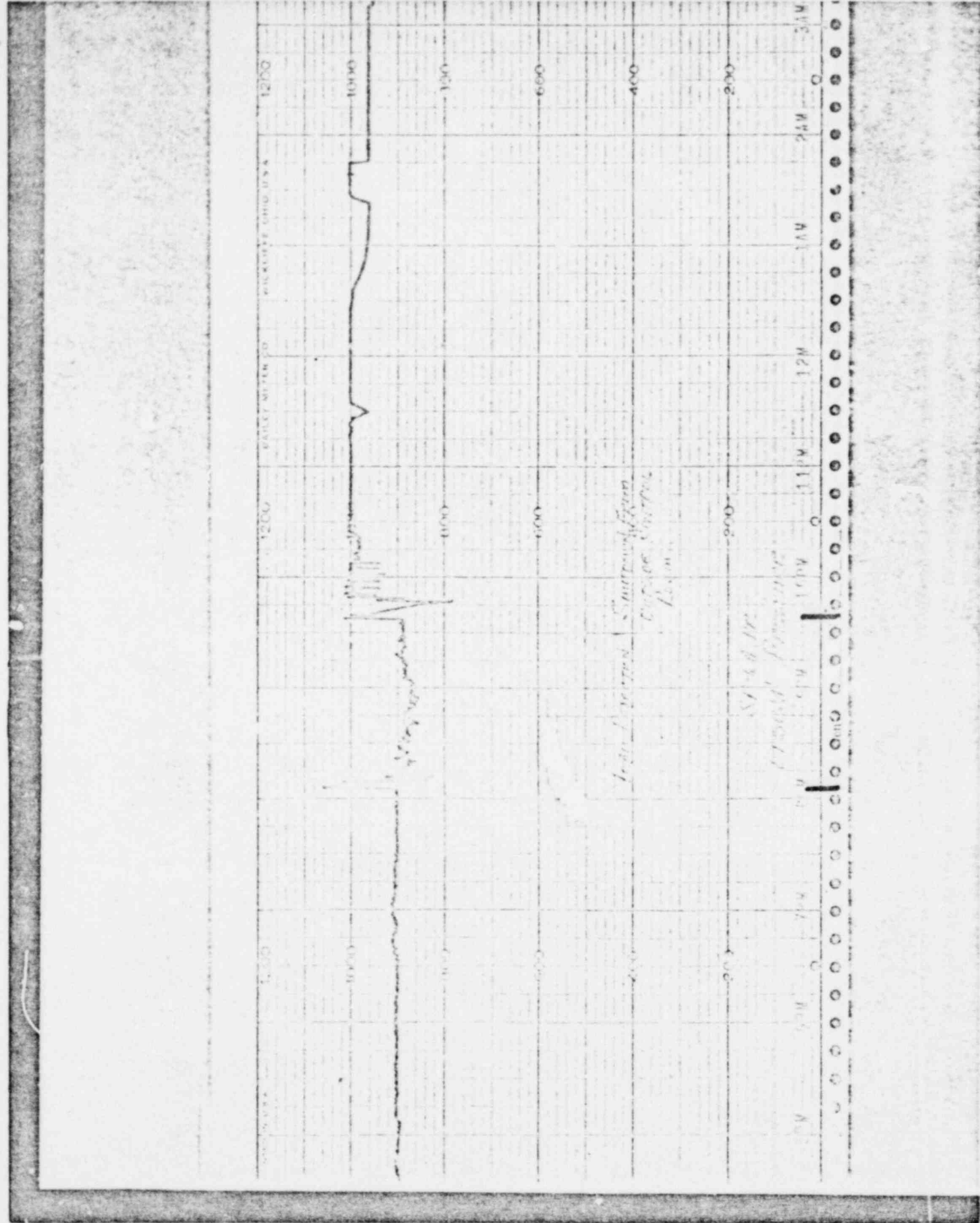
The final occurrence was during the "Loss of Offsite Power Test." When all four reactor coolant pumps are tripped, the ICS is required to take control of the emergency feedwater system and fill the OTSG's to 50% of operating level. This was accomplished with OTSG "A", but the "B" generator was not fed due to an electrical valve problem. Upon seeing this the local operator was instructed to take manual control of the "B" OTSG emergency feedwater bypass valve (FWV-161) to fill the generator. The operator, in error, took control of FWV-162 ("A" OTSG EFW bypass valve) and attempted to raise the level in "B" OTSG. By the time his error was corrected, OTSG "B" had boiled dry and reached a low pressure of 480 psig.

Attached are copies of the available post trip reviews and appropriate strip chart recordings.

4-22-77
Load Rejection

2156
4-22-77
Shutdown from Outside CR





Train of pulses
Signal generator

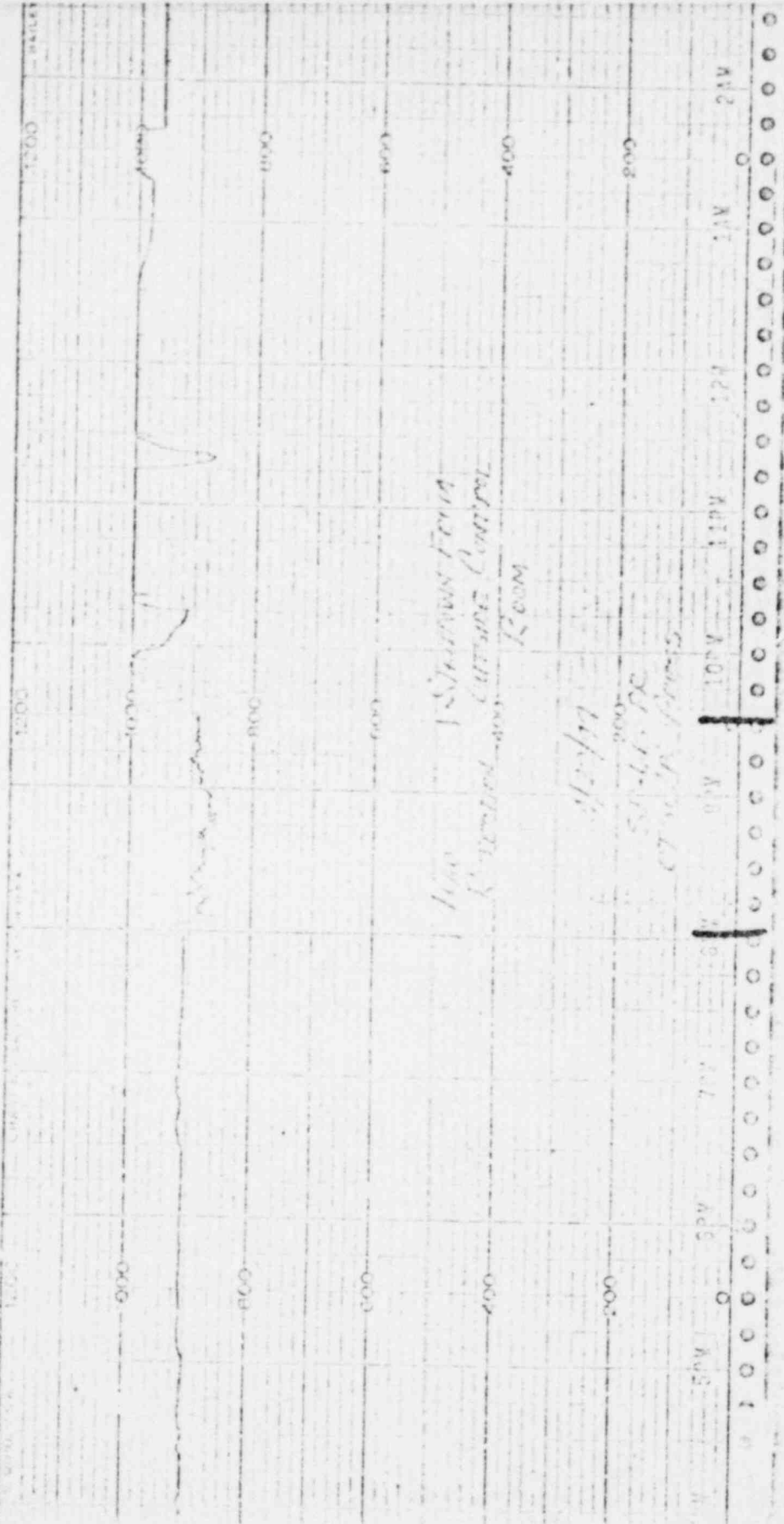
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000

100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 2900 3000 3100 3200 3300 3400 3500 3600 3700 3800 3900 4000 4100 4200 4300 4400 4500 4600 4700 4800 4900 5000

1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
4600
4800
5000

WILSON & WILSON

M



1 Strains Freq

R. Ventric. Lead
Room

4/2/77

5:44 PM

CTN. P. 100-5

50V 100V 150V 200V 250V 300V 350V 400V 450V 500V 550V 600V 650V 700V 750V 800V 850V 900V 950V 1000V 1050V 1100V 1150V 1200V

1877-78

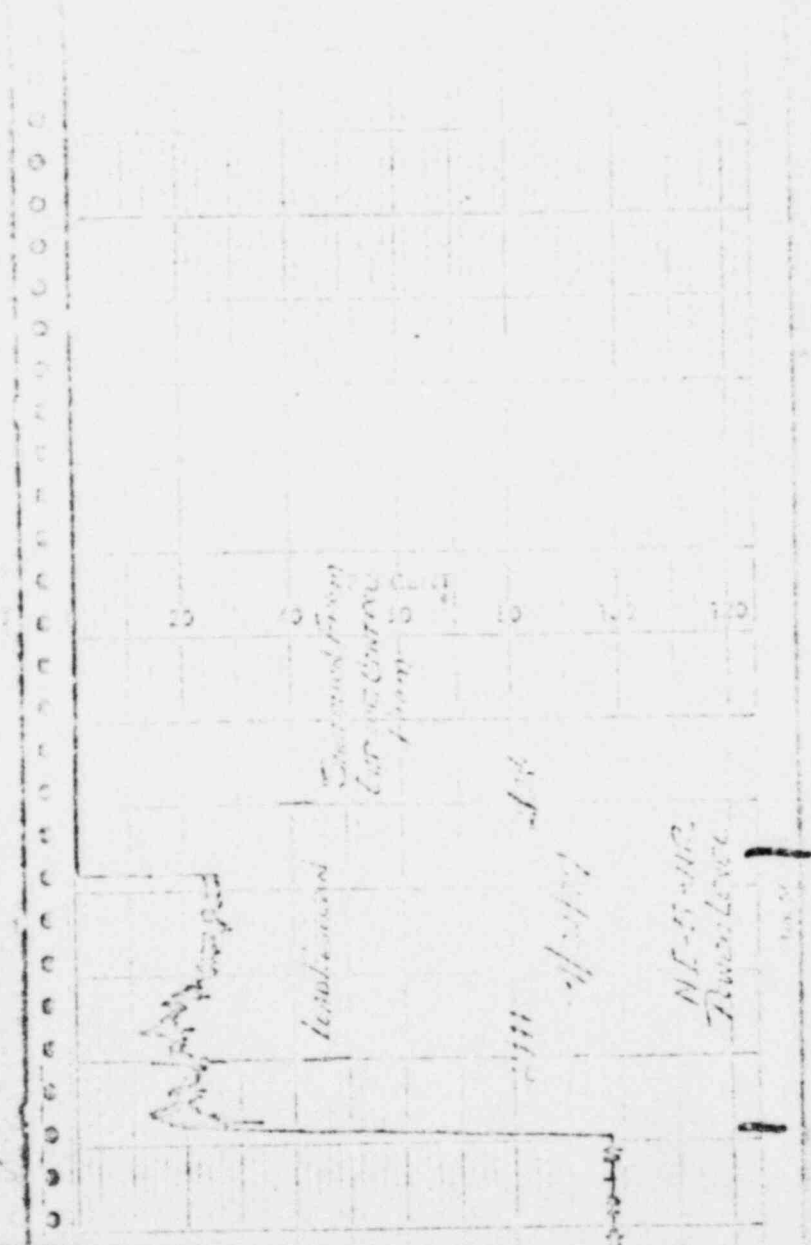
1877-78

1877-78
1877-78
1877-78

1877-78

1877-78

1877-78



NE-11-112

River Level

14

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

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142

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145

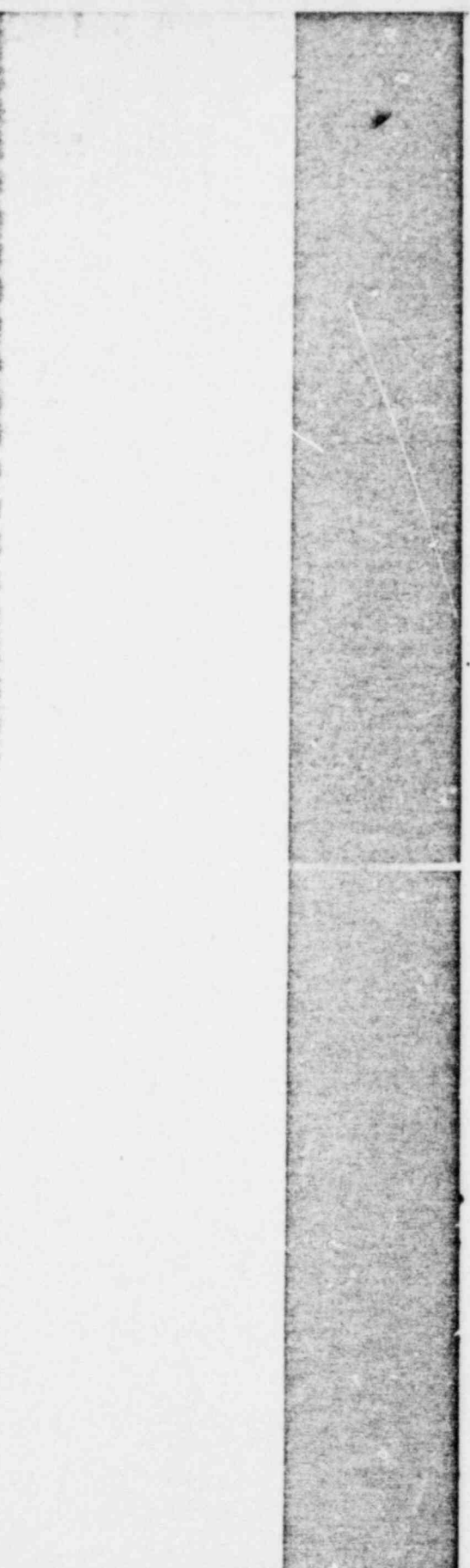
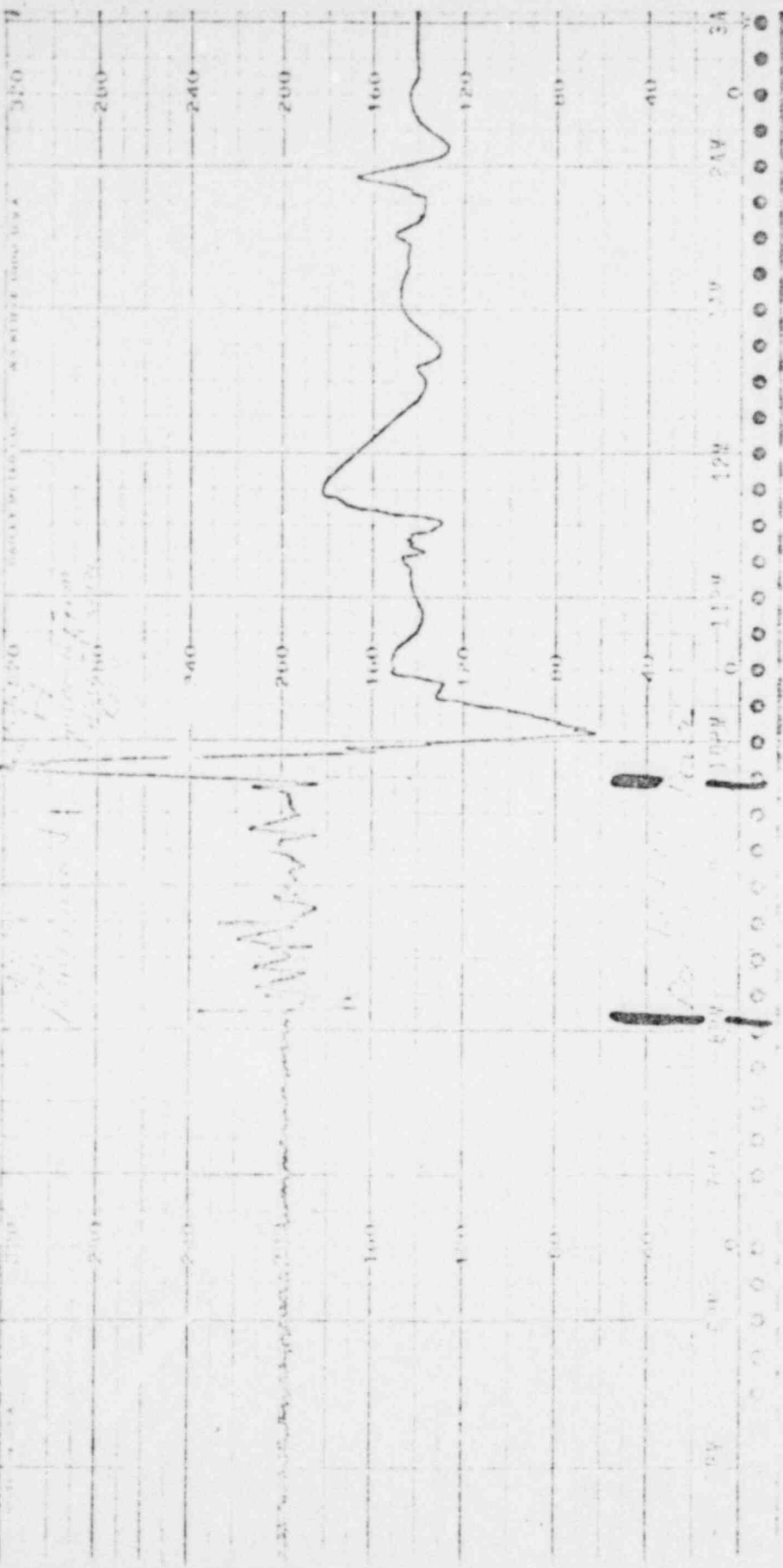
146

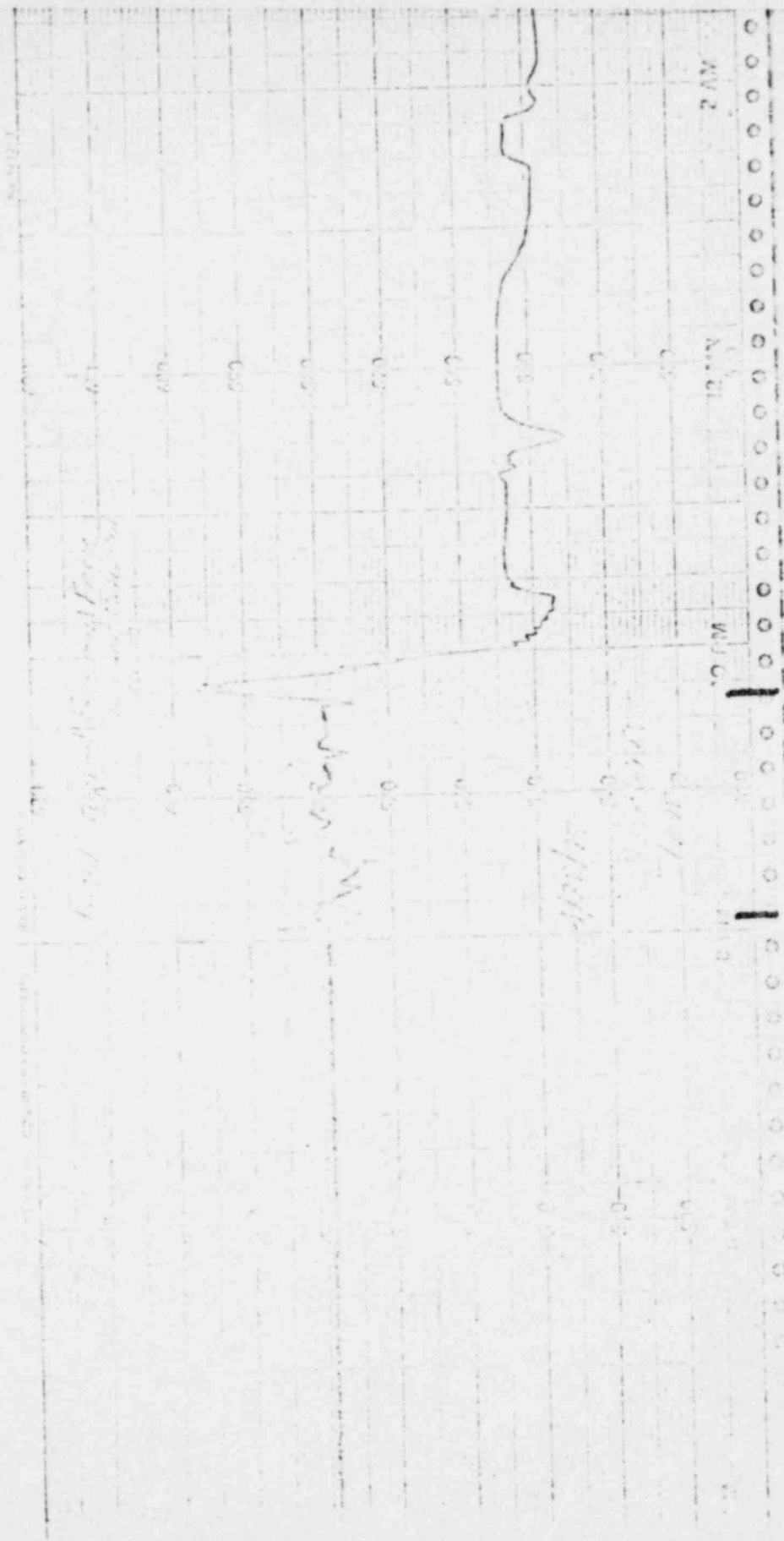
147

148

149

150





12:15 AM

W.C.

12:15 AM

W.C.

12:15 AM

W.C.

12:15 AM

W.C.

12:15 AM

W.C.

4/11/19
10:00 AM
10:00 AM

10:00 AM
10:00 AM



2 AM

10:00 AM

10:00 AM

10:00 AM

10:00 AM

10:00 AM



Shut down outside CR



Power Power
Loss at 0.1m Power

CD

DATE RECEIVED: 04/11/2011

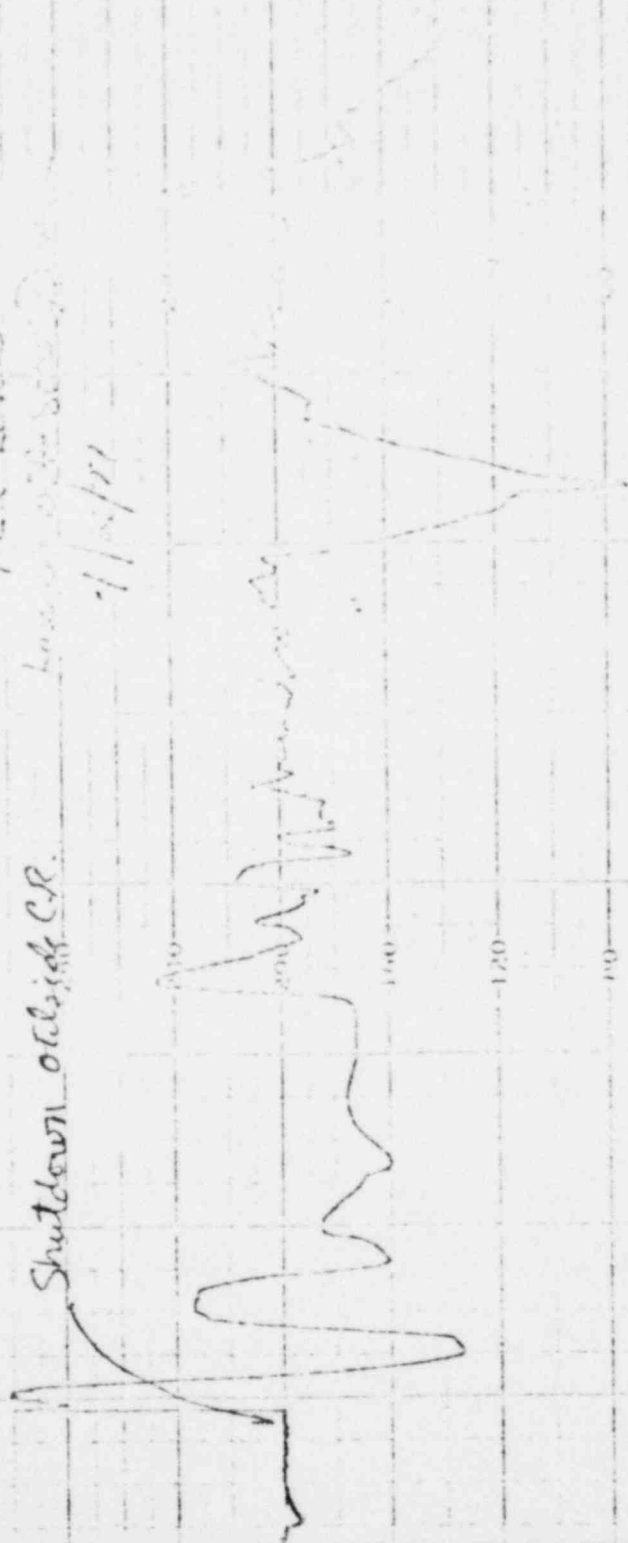
QUANTITY: 1.00

Shut down outside CR.

Peak 100%

Loss of 100% signal

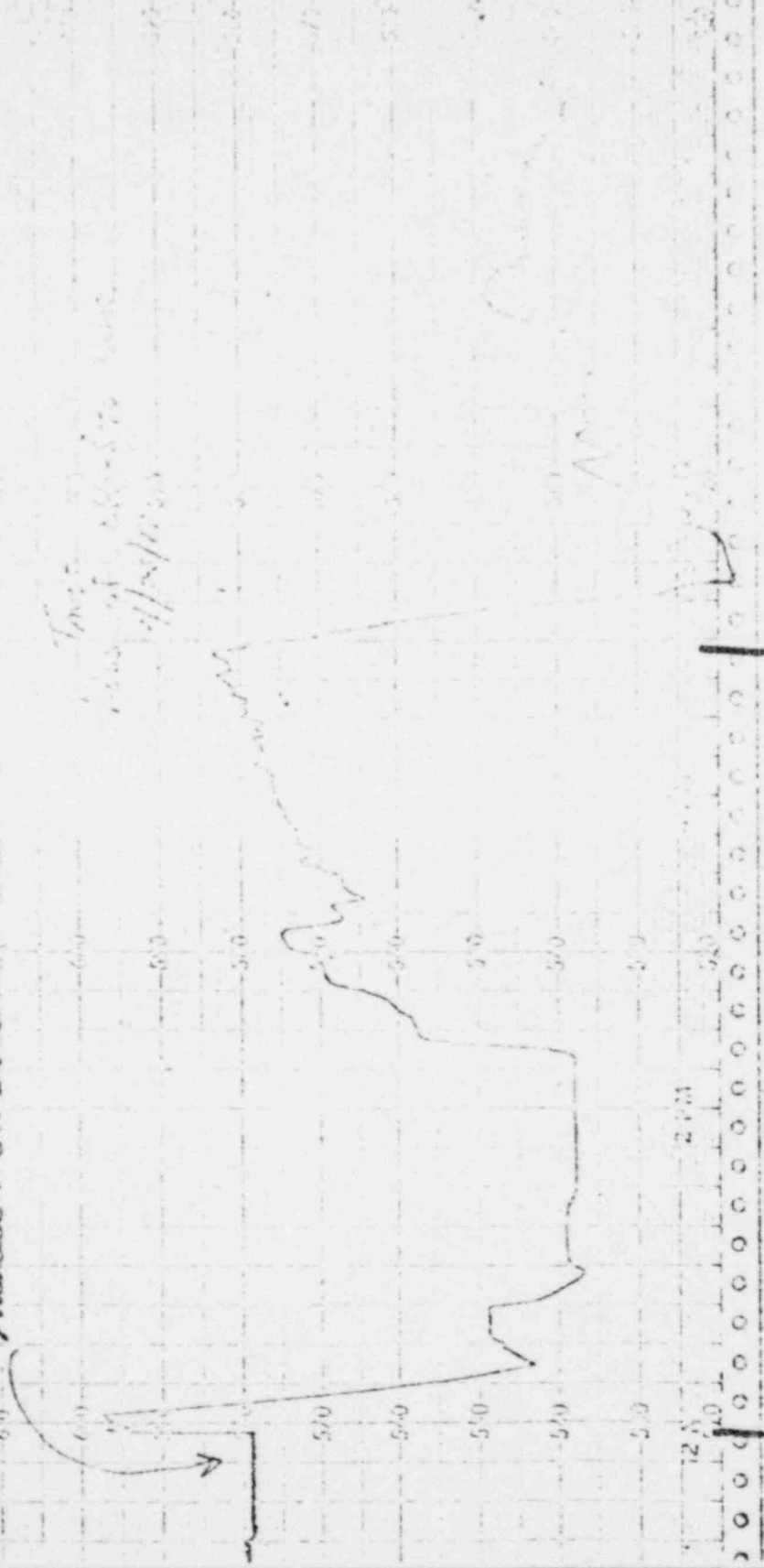
4/11/11



100%
 0.0 0.2 0.4 0.6 0.8 1.0
 0 100 200 300 400 500 600 700 800 900 1000

6.0
5.0
4.0
3.0
2.0
1.0
0.0
-1.0
-2.0
-3.0
-4.0
-5.0
-6.0
-7.0
-8.0
-9.0
-10.0
-11.0
-12.0

Shutdown outside CR



VIC 10000 USA

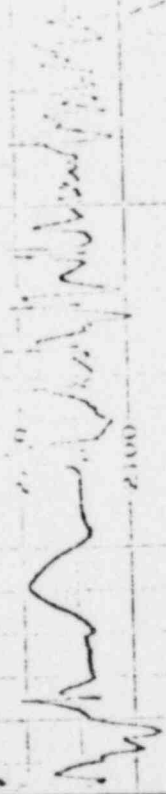
2000

VIC 100 USA

2000

Starch oxide CR

Re-pass window is
low on extra pass



2000
1500
1000
500
0

2000
1500
1000
500
0

2000
1500
1000
500
0

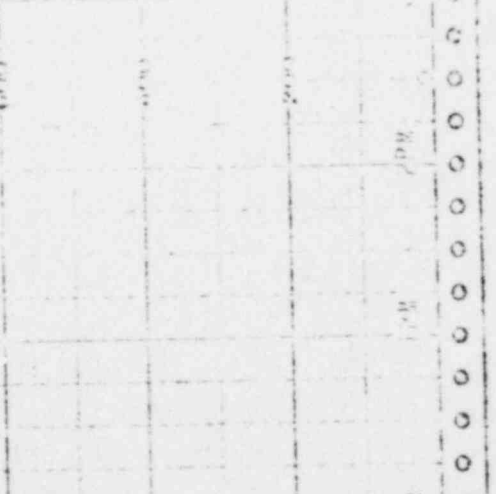
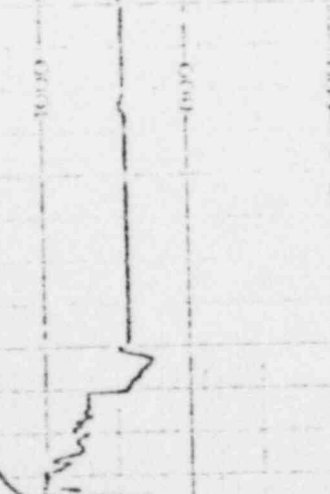
2000
1500
1000
500
0

2000
1500
1000
500
0

SHUTDOWN OUTSIDE CR
1/23/77



SHUTDOWN OUTSIDE CR
1/23/77



1211130	.4	.2	.2	.4	572.1	570.1	581.3	580.6	1961.	1957.	1964.	152.9	21.4	19.5	0	0	1899.	1996.	599.6	589.7
12112138	.6	.2	.6	.8	577.3	572.7	577.5	575.9	1939.	1932.	1942.	148.4	21.3	20.9	0	0	1897.	1996.	592.8	589.1
12113131	.4	.0	.0	.2	573.4	566.2	573.5	572.1	1929.	1917.	1925.	128.7	21.5	20.7	0	0	1887.	1995.	589.7	587.5
12114131	.0	.0	.0	.0	563.1	555.1	560.3	556.1	1914.	1909.	1916.	119.6	21.7	22.7	0	0	1797.	1795.	588.3	585.9

	E212	T214	T242	T215	T244	G206	T312	T313	T314	T315	T316	T317	G208	G209	G214	T244	T203	T243	T226	T230
11144145	134.-7777	21.57	1.43	1735.	52.2	.81	1.41	.52	1.45	3.26	2.97	1.97	.63	1.74	770.	423.-77.77	111.	344.		
11145145	134.-7777	21.57	1.43	1735.	52.2	.85	1.41	.54	1.45	3.26	2.96	1.96	.62	1.74	772.	422.-77.77	111.	344.		
11146145	134.-7777	21.58	1.43	1735.	52.2	.83	1.41	.52	1.45	3.26	2.98	1.97	.63	1.75	773.	423.-77.77	111.	344.		
11147145	134.-7777	21.74	1.43	1736.	52.2	.81	1.41	.54	1.45	3.31	2.95	1.97	.62	1.74	773.	422.-77.77	111.	344.		
11148145	134.-7777	21.71	1.43	1735.	52.2	.79	1.40	.56	1.45	3.30	2.95	1.96	.63	1.74	773.	422.-77.77	111.	344.		
11149145	134.-7777	21.72	1.43	1736.	52.2	.82	1.41	.53	1.45	3.32	2.94	1.96	.63	1.74	773.	423.-77.77	111.	344.		
11150145	134.-7777	21.56	1.43	1735.	52.2	.83	1.40	.54	1.45	3.30	2.98	1.97	.63	1.75	773.	422.-77.77	112.	344.		
11151145	134.-7777	21.56	1.43	1735.	52.2	.84	1.42	.55	1.45	3.33	2.97	1.96	.62	1.74	773.	423.-77.77	112.	344.		
11152145	132.-7777	21.52	1.43	1736.	52.2	.84	1.42	.55	1.45	3.32	2.97	1.97	.63	1.74	773.	422.-77.77	112.	344.		
11153145	132.-7777	21.53	1.43	1736.	52.2	.92	1.43	.53	1.45	3.29	2.97	1.97	.63	1.74	773.	422.-77.77	112.	344.		
11154145	131.-7777	21.74	1.43	1736.	52.2	.81	1.40	.56	1.45	3.34	2.96	1.96	.62	1.74	773.	422.-77.77	112.	344.		
11155145	131.-7777	21.71	1.42	1735.	52.2	.85	1.42	.57	1.45	3.38	2.95	1.96	.62	1.75	773.	423.-77.77	111.	344.		
11156145	131.-7777	21.55	1.43	1736.	52.2	.82	1.42	.55	1.45	3.34	2.95	1.96	.62	1.74	773.	422.-77.77	111.	344.		
11157145	131.-7777	21.54	1.43	1735.	52.2	.85	1.42	.54	1.44	3.31	2.97	1.97	.63	1.74	774.	423.-77.77	111.	344.		
11158145	131.-7777	21.53	1.43	1735.	52.2	.76	1.40	.54	1.44	3.34	2.96	1.96	.61	1.74	773.	422.-77.77	111.	344.		
11159145	131.-7777	21.75	1.43	1736.	52.2	.85	1.42	.53	1.45	3.30	2.98	1.97	.62	1.74	774.	423.-77.77	111.	344.		
11160145	131.-7777	21.74	1.43	1736.	52.2	.74	1.39	.54	1.44	3.32	2.97	1.97	.63	1.75	774.	423.-77.77	111.	344.		
11161145	129.-7777	21.77	1.43	1736.	52.2	.88	1.43	.56	1.45	3.34	2.96	1.97	.62	1.74	774.	423.-77.77	111.	344.		
11162145	129.-7777	21.77	1.43	1736.	52.2	.88	1.43	.56	1.45	3.33	2.96	1.97	.62	1.74	774.	423.-77.77	111.	344.		
11163145	129.-7777	21.69	1.39	1735.	52.2	.79	1.40	.57	1.45	3.34	2.95	1.96	.62	1.74	774.	423.-77.77	111.	344.		
11164145	129.-7777	21.74	1.39	1736.	52.2	.74	1.41	.56	1.44	3.34	2.95	1.96	.63	1.74	774.	423.-77.77	113.	344.		
11165145	129.-7777	21.75	1.40	1736.	52.2	.85	1.42	.57	1.45	3.35	2.96	1.96	.62	1.74	774.	423.-77.77	113.	344.		
11166145	129.-7777	21.67	1.40	1735.	52.2	.82	1.42	.56	1.45	3.34	2.96	1.96	.63	1.74	774.	423.-77.77	111.	344.		
11167145	129.-7777	21.67	1.39	1735.	52.2	.88	1.43	.55	1.44	3.32	2.97	1.96	.62	1.74	774.	423.-77.77	111.	344.		
11168145	129.-7777	21.81	1.39	1736.	52.2	.85	1.42	.55	1.44	3.31	2.98	1.97	.63	1.75	774.	423.-77.77	111.	344.		
11169145	129.-7777	21.67	1.39	1736.	52.2	.85	1.42	.55	1.44	3.34	2.97	1.96	.61	1.75	774.	423.-77.77	111.	344.		
11170145	129.-7777	21.71	1.39	1736.	52.2	.74	1.40	.57	1.44	3.33	2.96	1.96	.62	1.74	774.	423.-77.77	111.	344.		
11171145	129.-7777	21.72	1.40	1736.	52.2	.88	1.43	.56	1.44	3.34	2.96	1.96	.62	1.74	774.	423.-77.77	111.	344.		
11172145	129.-7777	21.68	1.39	1735.	52.2	.81	1.42	.57	1.44	3.35	2.96	1.96	.61	1.74	774.	423.-77.77	111.	344.		
11173145	129.-7777	21.74	1.40	1736.	52.2	.87	1.43	.58	1.45	3.35	2.96	1.96	.62	1.75	774.	423.-77.77	111.	344.		
11174145	129.-7777	21.54	1.39	1735.	52.2	.76	1.38	.62	1.45	3.47	2.94	1.96	.63	1.74	774.	423.-77.77	111.	344.		
12175145	-7777	17.53	1.15	1347.	52.4	.42	1.31	1.15	3.14	3.97	3.92	2.27	.69	1.45	774.	423.-77.77	23.	349.		
12176145	-7777	16.53	1.18	1397.	52.5	.37	1.35	2.94	2.84	4.89	4.68	2.91	.54	1.36	774.	423.-77.77	19.	342.		
12177145	-7777	14.79	1.21	1339.	52.5	.29	1.39	1.34	2.94	5.28	2.81	1.96	.13	.63	757.	423.-77.77	18.	342.		
12178145	-7777	13.74	1.13	1297.	52.6	.24	1.51	.64	2.98	4.78	2.43	1.91	.18	.45	757.	423.-77.77	15.	341.		
12179145	-7777	12.53	1.18	1333.	52.6	.26	1.54	.65	2.97	4.25	2.19	.92	.04	.42	757.	423.-77.77	14.	341.		
12180145	-7777	17.15	1.14	1333.	52.7	.14	1.53	.67	2.42	3.08	2.14	.95	.86	.47	757.	423.-77.77	13.	341.		
12181145	-7777	16.54	1.13	1457.	52.3	.23	1.32	.68	2.72	3.83	2.95	1.83	.25	.53	746.	388.-77.77	12.	339.		
12182145	-7777	16.56	1.13	1457.	52.9	.43	1.28	.75	2.43	3.74	2.12	1.96	.28	.51	746.	388.-77.77	13.	339.		
12183145	-7777	15.44	1.15	1475.	53.0	.34	1.24	.64	2.26	3.57	2.31	1.94	.29	.54	746.	388.-77.77	13.	339.		
12184145	-7777	17.11	1.14	1435.	53.1	.35	1.18	.64	2.43	3.66	2.82	1.11	.35	.56	746.	388.-77.77	13.	339.		
12185145	-7777	17.14	1.14	1447.	53.3	.42	1.27	.68	2.43	4.12	3.18	1.93	.30	.60	739.	378.-77.77	12.	336.		
12186145	-7777	17.53	1.15	1347.	53.4	.51	1.12	.68	2.59	4.45	3.54	1.98	.45	1.12	739.	378.-77.77	11.	335.		
12187145	-7777	17.43	1.15	1293.	53.5	.59	1.07	.68	2.18	3.97	4.38	1.14	.39	.94	739.	378.-77.77	11.	335.		
12188145	-7777	17.53	1.15	1293.	53.6	.72	1.12	1.28	1.94	3.14	4.97	.95	.32	.74	739.	378.-77.77	17.	335.		
12189145	-7777	17.35	1.13	1264.	53.7	.79	1.28	1.37	.81	2.39	4.27	.98	.72	.62	733.	359.-77.77	17.	335.		
12190145	-7777	17.75	1.14	1243.	53.8	.77	1.34	1.53	1.24	1.85	3.64	1.28	1.08	1.24	733.	359.-77.77	9.	335.		
12191145	-7777	17.79	1.14	1197.	53.8	.61	1.29	1.45	1.29	1.79	3.68	1.35	1.05	1.35	733.	359.-77.77	9.	335.		
12192145	-7777	17.91	1.14	1197.	53.9	.54	1.16	2.47	.95	1.79	4.02	1.27	.78	.84	733.	359.-77.77	9.	335.		
12193145	-7777	16.42	1.16	1112.	53.6	.67	.88	2.28	1.15	.56	4.32	.34	.16	.23	729.	363.-77.77	7.	334.		
12194145	-7777	16.54	1.15	1236.	53.6	.57	.92	2.01	1.74	1.67	3.98	.34	.11	.14	728.	357.-77.77	5.	334.		
12195145	-7777	18.79	1.17	948.	54.3	.69	.94	2.04	1.72	1.85	2.23	.55	.36	.66	723.	352.-77.77	5.	335.		
12196145	-7777	16.58	1.22	916.	54.5	.72	.98	1.58	2.93	2.70	1.67	.84	-77.77	.88	722.	349.-77.77	4.	332.		
12197145	-7777	18.49	1.22	846.	54.5	.52	1.04	1.38	1.85	1.96	.95	.54	.18	-77.77	720.	345.-77.77	3.	332.		
12198145	-7777	18.98	1.23	797.	54.2	.64	.95	1.27	1.83	1.90	.67	.58	.15	.80	719.	343.-77.77	2.	332.		

12111130	51.1	2	1 10.9-277.7	308.0	318.1	327.7	326.8	325.8	328.5	330.6	328.6	330.4	371.3-277.7-277.7	152.4
12112130	51.7	2	1 10.9-277.7	308.6	315.4	328.0	323.5	327.9	326.4	339.6	328.9	339.2	371.0-277.7-277.7	151.6
12113130	52.9	2	1 10.9-277.7	327.9	314.9	328.0	324.8	327.5	328.3	339.6	328.6	339.4	370.9-277.7-277.7	154.3
12114130	52.4	2	1 10.2-277.7	327.4	314.4	328.0	323.1	327.7	328.1	339.9	328.7	339.3	370.7-277.7-277.7	152.4

Shutdown from Outside Control Room

2112110	2112111	2112112	2112113	2112114	2112115	2112116	2112117	2112118	2112119	2112120	2112121	2112122	2112123	2112124	2112125	2112126	2112127	2112128	2112129	2112130	2112131	2112132	2112133	2112134	2112135	2112136	2112137	2112138	2112139	2112140	2112141	2112142	2112143	2112144	2112145	2112146	2112147	2112148	2112149	2112150	2112151	2112152	2112153	2112154	2112155	2112156	2112157	2112158	2112159	2112160	2112161	2112162	2112163	2112164	2112165	2112166	2112167	2112168	2112169	2112170	2112171	2112172	2112173	2112174	2112175	2112176	2112177	2112178	2112179	2112180	2112181	2112182	2112183	2112184	2112185	2112186	2112187	2112188	2112189	2112190	2112191	2112192	2112193	2112194	2112195	2112196	2112197	2112198	2112199	2112200	2112201	2112202	2112203	2112204	2112205	2112206	2112207	2112208	2112209	2112210	2112211	2112212	2112213	2112214	2112215	2112216	2112217	2112218	2112219	2112220	2112221	2112222	2112223	2112224	2112225	2112226	2112227	2112228	2112229	2112230	2112231	2112232	2112233	2112234	2112235	2112236	2112237	2112238	2112239	2112240	2112241	2112242	2112243	2112244	2112245	2112246	2112247	2112248	2112249	2112250	2112251	2112252	2112253	2112254	2112255	2112256	2112257	2112258	2112259	2112260	2112261	2112262	2112263	2112264	2112265	2112266	2112267	2112268	2112269	2112270	2112271	2112272	2112273	2112274	2112275	2112276	2112277	2112278	2112279	2112280	2112281	2112282	2112283	2112284	2112285	2112286	2112287	2112288	2112289	2112290	2112291	2112292	2112293	2112294	2112295	2112296	2112297	2112298	2112299	2112300																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	49.0	49.1	49.2	49.3	49.4	49.5	49.6	49.7	49.8	49.9	50.0	50.1	50.2	50.3	50.4	50.5	50.6	50.7	50.8	50.9	51.0	51.1	51.2	51.3	51.4	51.5	51.6	51.7	51.8	51.9	52.0	52.1	52.2	52.3	52.4	52.5	52.6	52.7	52.8	52.9	53.0	53.1	53.2	53.3	53.4	53.5	53.6	53.7	53.8	53.9	54.0	54.1	54.2	54.3	54.4	54.5	54.6	54.7	54.8	54.9	55.0	55.1	55.2	55.3	55.4	55.5	55.6	55.7	55.8	55.9	56.0	56.1	56.2	56.3	56.4	56.5	56.6	56.7	56.8	56.9	57.0	57.1	57.2	57.3	57.4	57.5	57.6	57.7	57.8	57.9	58.0	58.1	58.2	58.3	58.4	58.5	58.6	58.7	58.8	58.9	59.0	59.1	59.2	59.3	59.4	59.5	59.6	59.7	59.8	59.9	60.0	60.1	60.2	60.3	60.4	60.5	60.6	60.7	60.8	60.9	61.0	61.1	61.2	61.3	61.4	61.5	61.6	61.7	61.8	61.9	62.0	62.1	62.2	62.3	62.4	62.5	62.6	62.7	62.8	62.9	63.0	63.1	63.2	63.3	63.4	63.5	63.6	63.7	63.8	63.9	64.0	64.1	64.2	64.3	64.4	64.5	64.6	64.7	64.8	64.9	65.0	65.1	65.2	65.3	65.4	65.5	65.6	65.7	65.8	65.9	66.0	66.1	66.2	66.3	66.4	66.5	66.6	66.7	66.8	66.9	67.0	67.1	67.2	67.3	67.4	67.5	67.6	67.7	67.8	67.9	68.0	68.1	68.2	68.3	68.4	68.5	68.6	68.7	68.8	68.9	69.0	69.1	69.2	69.3	69.4	69.5	69.6	69.7	69.8	69.9	70.0	70.1	70.2	70.3	70.4	70.5	70.6	70.7	70.8	70.9	71.0	71.1	71.2	71.3	71.4	71.5	71.6	71.7	71.8	71.9	72.0	72.1	72.2	72.3	72.4	72.5	72.6	72.7	72.8	72.9	73.0	73.1	73.2	73.3	73.4	73.5	73.6	73.7	73.8	73.9	74.0	74.1	74.2	74.3	74.4	74.5	74.6	74.7	74.8	74.9	75.0	75.1	75.2	75.3	75.4	75.5	75.6	75.7	75.8	75.9	76.0	76.1	76.2	76.3	76.4	76.5	76.6	76.7	76.8	76.9	77.0	77.1	77.2	77.3	77.4	77.5	77.6	77.7	77.8	77.9	78.0	78.1	78.2	78.3	78.4	78.5	78.6	78.7	78.8	78.9	79.0	79.1	79.2	79.3	79.4	79.5	79.6	79.7	79.8	79.9	80.0	80.1	80.2	80.3	80.4	80.5	80.6	80.7	80.8	80.9	81.0	81.1	81.2	81.3	81.4	81.5	81.6	81.7	81.8	81.9	82.0	82.1	82.2	82.3	82.4	82.5	82.6	82.7	82.8	82.9	83.0	83.1	83.2	83.3	83.4	83.5	83.6	83.7	83.8	83.9	84.0	84.1	84.2	84.3	84.4	84.5	84.6	84.7	84.8	84.9	85.0	85.1	85.2	85.3	85.4	85.5	85.6	85.7	85.8	85.9	86.0	86.1	86.2	86.3	86.4	86.5	86.6	86.7	86.8	86.9	87.0	87.1	87.2	87.3	87.4	87.5	87.6	87.7	87.8	87.9	88.0	88.1	88.2	88.3	88.4	88.5	88.6	88.7	88.8	88.9	89.0	89.1	89.2	89.3	89.4	89.5	89.6	89.7	89.8	89.9	90.0	90.1	90.2	90.3	90.4	90.5	90.6	90.7	90.8	90.9	91.0	91.1	91.2	91.3	91.4	91.5	91.6	91.7	91.8	91.9	92.0	92.1	92.2	92.3	92.4	92.5	92.6	92.7	92.8	92.9	93.0	93.1	93.2	93.3	93.4	93.5	93.6	93.7	93.8	93.9	94.0	94.1	94.2	94.3	94.4	94.5	94.6	94.7	94.8	94.9	95.0	95.1	95.2	95.3	95.4	95.5	95.6	95.7	95.8	95.9	96.0	96.1	96.2	96.3	96.4	96.5	96.6	96.7	96.8	96.9	97.0	97.1	97.2	97.3	97.4	97.5	97.6	97.7	97.8	97.9	98.0	98.1	98.2	98.3	98.4	98.5	98.6	98.7	98.8	98.9	99.0	99.1	99.2	99.3	99.4	99.5	99.6	99.7	99.8	99.9	100.0

21140104	52.0	0	1 18.7-777.7	318.6	325.0	325.0	325.0	325.0	311.7	341.3	569.6	548.6	572.4	-777.7	.8	145.4
21149108	52.5	0	2 1 18.7-777.7	318.1	325.0	325.0	325.0	325.0	311.4	341.3	569.4	541.3	572.4	-777.7	.4	131.4
21150117	52.4	0	2 1 18.7-777.7	315.1	325.4	325.4	325.4	325.4	311.8	341.6	569.6	541.8	572.4	-777.7	.2	134.8
21153124	52.3	0	2 1 18.7-777.7	317.8	325.1	325.1	325.1	325.1	311.8	341.6	569.4	542.0	571.4	-777.7	.8	155.3