

FOR INFORMATION ONLY

DUKE POWER COMPANY
 PROCEDURE DISCREPANCIES
 PROCESS RECORD

(1) ID No: TP/1A/1350/25A

- (2) STATION: CATA 10A
- (3) PROCEDURE TITLE: D/G 1A BACKUP AND LOAD REGULATION
PROCEDURAL TEST
- (4) DATE(S) PERFORMED: 3-28-89, 3-30-89, 3-31-89, 4-1-89
- (5) DISCREPANCY PROCESSING:

Item No.	Procedure Section	Description	Corrective Action	Completion Date	Signature
1	12.0	CRDM FAN 1A INDICATING LIGHT SHOWED FAN OFF. CRDM FAN 1A LIGHT CHANGED BETWEEN ON AND OFF	INDICATING LIGHTS ARE CONTROLLED BY PRESSURE SWITCHES. SINCE CRDM HAS IN IS NOT INSTALLED THESE PRESSURE SWITCHES DO NOT ACCURATELY TELL IF FAN 1A IS ON OR OFF. FANS WERE VERIFIED TO BE ON USING COMPUTER POINTS.	3-28-89	<i>[Signature]</i>
2	12.1.20	RN PUMP STRUCTURE UNIT FAN 1A DID NOT START. RN PUMP STRUCTURE FAN 2A DID START.	RN PUMP STRUCTURE FAN 2A HAS PRIORITY START. CIP#9 WILL BE USED TO DRAIN 2A FAN SO 1A FAN WILL RUN. LOAD VERIFIED IN SECTION 12.2.	3-28-89	<i>[Signature]</i>
3	12.1.20	UCVU-1A AND 1C FANS CONTINUED TO RUN IN MAX SPEED - DID NOT RESET TO NORM SPEED	INVESTIGATION REVEALED THAT FANS ARE SIMPLY SPEED MAX AND NORM REFERS TO COOLING WATER FLOW. PROCEDURE CIP#9 PROCESSED TO DELETE SPEED REFERENCE.	3-28-89	<i>[Signature]</i>

BOO!
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DUKE POWER COMPANY
PROCEDURE DISCREPANCIES
PROCESS RECORD

(1) ID No: JP/1/A/1350/25A

(2) STATION: _____

(3) PROCEDURE TITLE: _____

(4) DATE(S) PERFORMED: _____

(5) DISCREPANCY PROCESSING: _____

Item No.	Procedure Section	Description	Corrective Action	Completion Date	Signature
4	12.1.20	COND PIPE TUNNEL BREAKER FAN 1A WENT OFF ON B/D SIGNAL - DID NOT GO TO LOW SPEED	FAN INDICATING LIGHTS ARE OFF PRESSURE SWITCHES. SWITCHES WILL NOT MAKE UNLESS 1B FAN IS ALSO RUNNING. 1B FAN WAS TURNED ON AND 1A WILL BE VERIFIED IN SEQ 12.2.	3-28-84	<i>[Signature]</i>
5	12.1.20	RN PUMP 2A BREAKER A/D NOT CLOSED	SLIDING LINES J-70 AND J-71 IN 1DGLSA-1, F-36 IN 1DGLSA-2, AND D-52 IN 1DGL16 WERE OPEN. LINES WERE CLOSED. BREAKER CLOSURE TO BE VERIFIED IN SEQ 12.2.	3-28-84	<i>[Signature]</i>
6	12.1.20	REVERSE MANUVAL WATER PUMP 1A DID NOT START	INVESTIGATION REVEALED PUMP DOES NOT GET B/D AUTO START SIGNAL - IT MUST BE STARTED MANUVALY. CH 49 WRITTEN TO START PUMP MANUVALY.	3-28-84	<i>[Signature]</i>

DUKE POWER COMPANY
PROCEDURE DISCREPANCIES
PROCESS RECORD

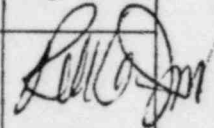
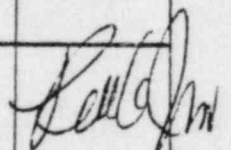

(1) ID No: TP/1/A/1350/25A

(2) STATION: _____

(3) PROCEDURE TITLE: _____

(4) DATE(S) PERFORMED: _____

(5) DISCREPANCY PROCESSING:

Item No.	Procedure Section	Description	Corrective Action	Completion Date	Signature
7	12.1.20	VI AIR DRYER C DID NOT START SINCE IT WAS TAKEN OUT FOR MAINTENANCE	DRYER IS TAKEN FOR MAINTENANCE. CHANGE #9 PROCESSED TO REMOVE THIS LOAD FROM LINE. 13.5. THIS DOES NOT AFFECT TEST SINCE DRYER HAS NO AUTO START SIGNAL TO VERIFY AND IS A RELATIVELY SMALL LOAD (4 HP MOTOR)	3-28-84	
8	12.1.20	Aux Bldg Filter Room Exhaust FAN A WOULD NOT START	INTERLOCKS WITH OTHER FANS PREVENTED START. CHANGE #9 PROCESSED TO JUMP OUT THESE OTHER INTERLOCKS. LOAD WILL BE VERTICALLY IN SECTION 12.2.	3-28-84	
9	12.1.20	Aux Bldg UNFILTERED EXHAUST FAN 1A WOULD NOT START	SEE #8 ABOVE. SAME CORRECTIVE ACTION.	3-28-84	

DUKE POWER COMPANY
PROCEDURE DISCREPANCIES
PROCESS RECORD

(1) ID No: TP/1/A/1350/25A

(2) STATION: _____

(3) PROCEDURE TITLE: _____

(4) DATE(S) PERFORMED: _____

(5) DISCREPANCY PROCESSING: _____

Item No.	Procedure Section	Description	Corrective Action	Completion Date	Signature
10	12.1.20	Aux Bus Supply Unit 1A WOUND NOT START	SEE # 8 ABOVE. SAME CORRECTIVE ACTION.	3-28-84	<i>[Signature]</i>
11	12.1.22.4 12.1.22.5 12.1.22.6	1MXP, 1MXX, 1MXR, 1KPX AND ICDB HAD NORMAL VOLTAGE PRESENT ON BUSES.	1MXP, 1MXX, 1MXR AND 1KPX HAD VOLTAGE DUE TO B/D MISC'S SWAPPING TO ALTERNATE SOURCE. ICDB HAD VOLTAGE DUE TO BATTERY ON BUS. PREVIOUS CH # 9 INCORPORATED TO REVIEW CH # 8 TRAIN B/D POWER SYSTEM DURING SECTION 12.2 TO VERIFY ABSENCE OF VOLTAGE ON TEST BUSES.	3-28-84	<i>[Signature]</i>
12	12.2	PREPARING TO DO SECTION 12.2 WHEN OPS NOTICED INCOMING BKR ON 1MXW WAS STANDING.	WR 8765 OPS HAD BEEN WRITTEN IN 2/84. ADDITIONAL WR 8747 OPS WAS WRITTEN. WHILE THE HAD BEEN HUNG ON BKR IN FEB BUS WAS OVERTOOL TO PERFORM LUMP FOR THIS TEST. BREAKER HAD A SHORT IN Y PHASE. BREAKER WAS BURNED AND REPLACED.	3-29-84	<i>[Signature]</i>

Figure 4.1-7

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DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD

(1) ID No:
Change No:
Permanent/Restricted To

(2) STATION: Cape Fear
(3) PROCEDURE TITLE: Dr. A. Breen - And Loss Position Permanent
Test

(4) SECTION(S) OF PROCEDURE AFFECTED: 12.0

(5) DESCRIPTION OF CHANGE: (Attach additional pages, if necessary.)
As described in 12.0, Section 3, para 7 "In. Blog Filter Room E-10"
Test 12.0 under Loss Group # 13

(6) REASON FOR CHANGE:
The FSAR states the test purpose and may be used for
control of the test to be done test to 12.0 30-1050

(7) PREPARED BY: DATE:

(8) SAFETY EVALUATION

This change:

- Yes No Represents a change to the station or procedures as described in the FSAR, or a test or experiment not described in the FSAR?
- Yes No Requires a change to the station Technical Specifications?
- Yes No Involves an unreviewed safety question?

If the answer to any of the above is "Yes", attach a detailed explanation. As appropriate attach a completed "Nuclear Safety Evaluation Check List" form.

By: Date: 4-1-84

(9) REVIEWED BY: DATE: 4-1-84

Cross-Disciplinary Review By: N/R:

(10) TEMPORARY APPROVAL (IF NECESSARY):

By: (SRO) Date: 4-1-84
By: Date:

(11) APPROVED BY: DATE:

(12) MISCELLANEOUS:

Reviewed/Approved By: Date:
Reviewed/Approved By: Date:

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD

(1) ID No: 701212551251
Change No: 10
Permanent/Restricted To

- (2) STATION: CANEBA
- (3) PROCEDURE TITLE: DIG 1A BLADE AND LAMP RETURN
PROGRAMMING TEST
- (4) SECTION(S) OF PROCEDURE AFFECTED: 19.0
- (5) DESCRIPTION OF CHANGE: (Attach additional pages, if necessary.)

SEE ATTACHED SHEET

(6) REASON FOR CHANGE:

REPROGRAMMING

(7) PREPARED BY: [Signature] DATE: 3-29-84

(8) SAFETY EVALUATION

This change:

- Yes No Represents a change to the station or procedures as described in the FSAR, or a test or experiment not described in the FSAR?
- Yes No Requires a change to the station Technical Specifications?
- Yes No Involves an unreviewed safety question?

If the answer to any of the above is "Yes", attach a detailed explanation. As appropriate attach a completed "Nuclear Safety Evaluation Check List" form.

By: [Signature] Date: 3-29-84

(9) REVIEWED BY: [Signature] DATE: 3-29-84

Cross-Disciplinary Review By: _____ N/R: AB

(10) TEMPORARY APPROVAL (IF NECESSARY):

By: _____ (SRO) Date: _____
By: _____ Date: _____

(11) APPROVED BY: [Signature] DATE: 3/29/84

(12) MISCELLANEOUS:

Reviewed/Approved By: _____ Date: _____
Reviewed/Approved By: _____ Date: _____

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD CONTINUATION FORM

ID No: 7/11/1250/25A
Change No: 10
Page 2 of 2

DESCRIPTION OF CHANGE:

(1) Add step 12.2.6.2 "Remove D/G Auto-Connected Load
and compare to AOSTA on Enclosure 13.10"

(2) On the bottom of Enclosure 13.10 Add the following:

12.2.6.2 D/G Load (AOSTA) MW 1
(Auto-Connected)

(3) Change 12.7.3 to read "... using the values returned
from steps 12.1.70.2 and 12.2.6.2 on Enclosure 13.10"

REASON FOR CHANGE:

(1)(2)&(3) Since some loads would not operate in Section
12.1 the Auto-Connected Load will be required
when performing Section 12.2

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD

(1) ID No: 701/1/125/1251
Change No: 1
Permanent/Restricted To

- (2) STATION: CFAVER
- (3) PROCEDURE TITLE: D/G 1A BLACKWOOD LEAD RETURN
PERMANENT TEST
- (4) SECTION(S) OF PROCEDURE AFFECTED: 12.0 115.0
- (5) DESCRIPTION OF CHANGE: (Attach additional pages, if necessary.)

SCAFFOLDING

(6) REASON FOR CHANGE:

SCAFFOLDING

(7) PREPARED BY: [Signature] DATE: 3-26-84

(8) SAFETY EVALUATION

This change:

- Yes No Represents a change to the station or procedures as described in the FSAR, or a test or experiment not described in the FSAR?
- Yes No Requires a change to the station Technical Specifications?
- Yes No Involves an unreviewed safety question?

If the answer to any of the above is "Yes", attach a detailed explanation. As appropriate attach a completed "Nuclear Safety Evaluation Check List" form.

By: [Signature] Date: 3-25-84

(9) REVIEWED BY: [Signature] DATE: 3-28-84

Cross-Disciplinary Review By: _____ N/R: [Signature]

(10) TEMPORARY APPROVAL (IF NECESSARY):

By: [Signature] (SRO) Date: 3-28-84
By: [Signature] Date: 3-28-84

(11) APPROVED BY: [Signature] DATE: 3/28/84

(12) MISCELLANEOUS:

Reviewed/Approved By: _____ Date: _____
Reviewed/Approved By: _____ Date: _____

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD CONTINUATION FORM

ID No: 70/11/35/1254
Change No: 9
Page 2 of 5

DESCRIPTION OF CHANGE:

(1) DELETE STEPS 12.1.22.4.7, 12.1.22.4.8, 12.1.22.4.9,
12.1.22.5.4 AND 12.1.22.6.1.

(2) ADD STEP 12.2.6.1 AS FOLLOWS:

— 1 — 12.2.6.1 DE-ENERGIZE 210 5 TRAM LINES
1MXP, 1MXX, AND 1MXR BY TRIPPING THEIR
MOTOR AND AVOIDING SWAY BARS. DE-ENERGIZE
ICDB BY TRIPPING SECTIONS ICDB-FC4A
AND ICDB-FC5B.

(3) ADD STEP 12.2.6.1 AS FOLLOWS:

~~12.2.6.1~~ VERIFY PRESENCE OF VOLTAGE ON TRAM LINES
210 ~~TRAM~~^{TR} BUSES LISTED BELOW USING
A DIGITAL VOLTMETER:

— 1 — 12.2.6.1.1 1MXP

— 1 — 12.2.6.1.2 1MXX

— 1 — 12.2.6.1.3 1MXR

— 1 — 12.2.6.1.4 1KFX

— 1 — 12.2.6.1.5 ICDB

(4) ADD STEPS 12.2.1.2 AND 12.2.1.3 WITH INDEPENDENT UNIT OPERATIONS
FOLLOWS:

— 1 — — 12.2.1.2 OPEN 2-DUMMIE FEED LINES (C-1 TO C-33) AND
~~TRIP~~ LCP-011 TO PREVENT UNPLANNED EXHAUST
FAN TO START / DUMPERS UNPLANNED UNPLANNED
EXHAUST FANS)

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD CONTINUATION FORM

ID No: 70110175.654
Change No: 9
Page 3 of 5

— 1 — 1 — 12.2.1.3 Place a jumper from LIMES H-1 to H-2
in IELCP-0112 to make sure room
is kept cool to run in the morning of
the individuals with coughs.

CAUTION = SEE NOTE AFTER STEP 1

⑤ Add steps 12.6.6 and 12.6.7 with independent verification
as follows:

— 1 — 1 — 12.6.6 Remove jumper across lines C-6 and C-5
in IELCP-0111.

— 1 — 1 — 12.6.7 Remove jumper across lines H-1 and H-2
in IELCP-0112.

⑥ Put Procedure 13.5 under "DEPRESS ON" to "REST
IN AUTO" for the program rate from EXHAUST FAN and
"KVA BLOCK SUPPLY UNIT 1A" under Load Group 13.

⑦ On Procedure 13.5 under Load Group 13 DELETE
"INSTRUMENT AIR DRYER C-DEPRESS ON"

⑧ In Procedure 13.5 under Load Group 5 delete "NORM"
from 12VU-1A and 12VU-1C.

⑨ Add step 12.2.5.1 to read "Verify loads on Procedure 13.5
which are required to be verified in section 12.2
first"

⑩ Add note to read "Verify operation in 12.2 to
ensure loads on Procedure 13.5"

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD CONTINUATION FORM

ID No: 701/12/1350/250
Change No: 4
Page 4 of 5

- RN Pump Structure Vent Fan 1A
- Cont. Pac Tunnel Beoside Fan 1A
- RN Pump 2A
- RN 2A Main Vent Unit Pump 1A
- Aux Blower Exhaust Room Exhns - Fan 1
- Aux Blower Exhaust Room Exhns - Fan 1A
- Aux Blower Supply Unit 1A

(1) P. Fan 1 - 13.5 open "ON" to "TURN TO ON"
for RN 2A Main Vent Unit Pump 1A under lock key 1.

(2) ON Exhaust - 13.5 Add "ENSURE ZETA XC - FORCE FAN TO V2 FAN
IT IS OPEN" TO RN PUMP STRUCTURE VENT FAN 1A UNDER
lock key 1.

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD CONTINUATION FORM

ID No: TP/1/1350/25
Change No: 9
Page 5 of 5

Reason for Change:

(1) (2), & (3) ORIGINAL LINE-UP FAILED TO TAKE INTO ACCOUNT B/T RAN
B/D MISC SWAPPING TO MAKE APPROPRIATE SWAPS.

AS FOUND TO HAVE BATTERY PROBLEM ON C/D.

THIS CHANGE WILL ALLOW US TO VERIFY ASSUMPT
OF VOLTAGE DURING 12.2.

(4) & (5) V/A FAN INTERLOCKS WITH OTHER FANS PREVENTED
LOADING UP 13 FANS FROM STARTING. THIS CHANGE
WILL REMOVE THESE INTERLOCKS.

(6) 110V FANS ~~WILL~~ DO NOT HAVE PUSH BUTTON
SWITCHES. INSTEAD THE CONTROL SWITCH MUST BE
TURNED TO AUTO.

(7) L/D BEARING C IS NEEDED FOR MAINTENANCE.

(8) THESE FANS DO NOT HAVE TWO SPEEDS - ONLY A
SINGLE SPEED

(9) & (10) THESE LOADS WHICH DID NOT PREVIOUSLY ACCELERATE
IN 12.1 WILL BE LIMITED IN 12.2.

(11) R/M W PUMP DOES NOT AUTO START ON B/D. IT MUST
BE MANUALLY STARTED.

(12) UNIT 2 V/A FAN 2A MUST BE DE-MANAGED TO ALLOW
FAN 1A TO START.

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD

(1) ID No: 201010250/25A
Change No: 6
Permanent/Restricted To

(2) STATION: CHERRY

(3) PROCEDURE TITLE: SKIA BURNER AND LEAD RIGIDITY PRACTICES IS-

(4) SECTION(S) OF PROCEDURE AFFECTED: 8.6, 13.0

(5) DESCRIPTION OF CHANGE: (Attach additional pages, if necessary.)

Handwritten notes describing the change, including references to "CLOSE LINE" and "42 INCH".

(6) REASON FOR CHANGE:

(7) PREPARED BY: _____ DATE: 3-28-84

(8) SAFETY EVALUATION

This change:

- Yes No Represents a change to the station or procedures as described in the FSAR, or a test or experiment not described in the FSAR?
- Yes No Requires a change to the station Technical Specifications?
- Yes No Involves an unreviewed safety question?

If the answer to any of the above is "Yes", attach a detailed explanation. As appropriate attach a completed "Nuclear Safety Evaluation Check List" form.

By: [Signature] Date: 3-28-84

(9) REVIEWED BY: [Signature] DATE: 3-28-84

Cross-Disciplinary Review By: _____ N/R: AKB

(10) TEMPORARY APPROVAL (IF NECESSARY):

By: [Signature] (SRO) Date: 3-28-84
By: _____ Date: _____

(11) APPROVED BY: [Signature] DATE: 3-28-84

(12) MISCELLANEOUS:

Reviewed/Approved By: _____ Date: _____
Reviewed/Approved By: _____ Date: _____

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD

(1) ID No: 441-1-25-1254
Change No: _____
Permanent/Restricted To _____

(2) STATION: CATCO

(3) PROCEDURE TITLE: DIAGNOSTIC - MOLECULARIZATION PREPARATION TEST

(4) SECTION(S) OF PROCEDURE AFFECTED: 4.6.12.1, 13.0

(5) DESCRIPTION OF CHANGE: (Attach additional pages, if necessary.)

SEE ATTACHED SHEET

(6) REASON FOR CHANGE:

REVISION

(7) PREPARED BY: [Signature] DATE: 3-28-84

(8) SAFETY EVALUATION

This change:

- Yes No Represents a change to the station or procedures as described in the FSAR, or a test or experiment not described in the FSAR?
- Yes No Requires a change to the station Technical Specifications?
- Yes No Involves an unreviewed safety question?

If the answer to any of the above is "Yes", attach a detailed explanation. As appropriate attach a completed "Nuclear Safety Evaluation Check List" form.

By: [Signature] Date: 3-28-84

(9) REVIEWED BY: [Signature] DATE: 3-28-84

Cross-Disciplinary Review By: _____ N/R: [Signature]

(10) TEMPORARY APPROVAL (IF NECESSARY):

By: _____ (SRO) Date: _____
By: _____ Date: _____

(11) APPROVED BY: [Signature] DATE: 3/28/84

(12) MISCELLANEOUS:

Reviewed/Approved By: _____ Date: _____
Reviewed/Approved By: _____ Date: _____

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
LESS RECORD CONTINUATION FORM

ID No: 7411/1350/25A
Change No: 6
Page 2 of 2

INDEPENDENT VERIFICATION AS FOLLOWS:

PLACE A JUMPER BETWEEN BUS HA-20
AND SUBSTATION LINE D-25 IN DCNSL0001
TO DIRECT SUPPLY POWER ON THE
SA LINES.

SEE NOTE FOLLOWING STEP 8.1

INDEPENDENT VERIFICATION AS FOLLOWS:

REMOVE JUMPER BETWEEN BUS HA-20
AND LINE D-25 IN DCNSL0001.

NOTE CURRENT SOURCE SYSTEM
TRANSFER FROM BUS HA-20 TO IPAN
FOR LINEUP FOR FIRE PROTECTION (FP)
NOTE FIRE PROTECTION Jockey Pump
LOAD GROUP 10.

SFS A JUMPER MUST BE PLACED TO
THE INTERLOCKS
IKLSEA AS A FULL PUMP INTERLOCK

Jockey Pumps no longer require
start signal

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD

(1) ID No: 7011-50125A
Change No: 5
Permanent/Restricted To

(2) STATION: CATAWA

(3) PROCEDURE TITLE: DIG 1A BLEND AND LOAD RETURN PROCEDURE
TEST

(4) SECTION(S) OF PROCEDURE AFFECTED: 150, E.D

(5) DESCRIPTION OF CHANGE: (Attach additional pages, if necessary.)
See Attachment

(6) REASON FOR CHANGE:
Improvement

(7) PREPARED BY: [Signature] DATE: 2-22-84

(8) SAFETY EVALUATION

This change:

Yes No Represents a change to the station or procedures as described
in the FSAR, or a test or experiment not described in the FSAR?
Yes No Requires a change to the station Technical Specifications?
Yes No Involves an unreviewed safety question?

If the answer to any of the above is "Yes", attach a detailed explanation.
As appropriate attach a completed "Nuclear Safety Evaluation Check List" form.

By: [Signature] Date: 3-29-84

(9) REVIEWED BY: [Signature] DATE: 5-22-84

Cross-Disciplinary Review By: _____ N/R: Asst

(10) TEMPORARY APPROVAL (IF NECESSARY):

By: _____ (SRO) Date: _____
By: _____ Date: _____

(11) APPROVED BY: [Signature] DATE: 7-25-84

(12) MISCELLANEOUS:

Reviewed/Approved By: _____ Date: _____
Reviewed/Approved By: _____ Date: _____

(13) Page 1 of 2

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD CONTINUATION FORM

ID No: 721/A/1350/25A
Change No: 5
Page 2 of 2

DESCRIPTION OF CHANGE:

1) ON ENCL 13.3 CHANGE "OP/11/1000/12, SECTION 6.4" TO
"OP/11/1000/12, ENCL 4.3" UNDER BOILER ROOM
SYSTEM

2) ON ENCL 13.3 CHANGE NOTE OF 5 IN 3246 (RIMMIST JUNK)
FROM UNDER BOILER ROOM SYSTEM

3) ON ENCL 13.3 UNDER AUXILIARY BUILDING VENTILATION SYSTEM
CHANGE THE FIRST SENTENCE TO READ AS FOLLOWS:

"THE 7-11 VA SYSTEM FANS LISTED BELOW ARE
NOT TO BE RUN AT 100% A BUREAU OF
ELECTRICITY"

(THE 7-11 AND NOT "THE 7-11 ARE UNDER CONSTRUCTION, NOT INSURED")
TO X 100%.

REASON FOR CHANGE:

1) DP ARE BEING REWIRING SECTION 6.4 IS NOW ENCL 4.3

2) CTS DEWIES TO CONTINUE FILING OF THE RIMMIST AND VA
NOT TEST

3) VA 7-11 SYSTEMS ARE NOT BE RUN OUT IT UNDER
SYSTEM. PURPOSE OF THIS TEST IS TO VERIFY THE FANS START UP
CORRECTLY. A SPILL SYSTEM UNDER IS NOT RUNNING.

4) TEST AND NOT BEING IN BUREAU AREA 7-11 IS COMPLETE.

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD

(1) ID No: 7-01/1250/251
Change No: 4
Permanent/Restricted To

(2) STATION: Catawba
(3) PROCEDURE TITLE: D/G 1A Breaker and Load Relaying Parameters
Test

(4) SECTION(S) OF PROCEDURE AFFECTED: 8.0, 12.0

(5) DESCRIPTION OF CHANGE: (Attach additional pages, if necessary.)
See attached sheet

(6) REASON FOR CHANGE:
Change in values due to PTM creation
and other related information
to be used in the system

(7) PREPARED BY: [Signature] DATE: 3-23-84

(8) SAFETY EVALUATION

This change:

Yes No Represents a change to the station or procedures as described
in the FSAR, or a test or experiment not described in the FSAR?
Yes No Requires a change to the station Technical Specifications?
Yes No Involves an unreviewed safety question?

If the answer to any of the above is "Yes", attach a detailed explanation.
As appropriate attach a completed "Nuclear Safety Evaluation Check List" form.

By: [Signature] Date: 3-23-84

(9) REVIEWED BY: [Signature] DATE: 3-23-84

Cross-Disciplinary Review By: _____ N/R: FB

(10) TEMPORARY APPROVAL (IF NECESSARY):

By: [Signature] (SRO) Date: 3-23-84
By: _____ Date: _____

(11) APPROVED BY: _____ DATE: _____

(12) MISCELLANEOUS:

Reviewed/Approved By: _____ Date: _____
Reviewed/Approved By: _____ Date: _____

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD CONTINUATION FORM

ID No: 7/11/125/125
Change No: 4
Page 2 of 2

Description of Change:

① Add steps 8.16 and 8.17 with independent verification as follows:

— 1 — 1 — 8.16 For sections 12.1 ~~through~~ 12.2: Place a jumper across lines F-1 and F-2 in 11AFC etc. by-pass fire protection and radiation protection instructions.

— 1 — 1 — 8.17 For sections 12.1 ~~and~~ ^{through} 12.2: Place a jumper across lines E-54 and G-27 in 10-7 etc. by-pass fire protection and radiation protection instructions.

Also add caution statement same as statement following 5.1 in procedure

② Amend 5.18 as follows:

— 1 — 5.18 For sections 12.1 ~~and~~ ^{through} 12.2: Ensure TRIN A and TRIN B SSPS cabinets are in test.

③ Add steps 12.6.2 and 12.6.3 with independent verification as follows:

— 1 — 1 — 12.6.2 Remove jumper across sliding lines F-1 and F-2 in 11AFC etc.

— 1 — 1 — 12.6.3 Remove jumper across sliding lines ~~G-13~~^{R10} and ~~G-14~~^{R10} in 11AFC etc.
E-54 G-27

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD

(1) ID No: 7211/1125/125A
Change No: 3
Permanent/Restricted To

(2) STATION: CATAWBA
(3) PROCEDURE TITLE: D/G 1A BLANK NO LOAD RETENTION PRODUCTION TEST

(4) SECTION(S) OF PROCEDURE AFFECTED: 1.1.1

(5) DESCRIPTION OF CHANGE: (Attach additional pages, if necessary.)

SEE ATTACHED SHEETS

(6) REASON FOR CHANGE:

SEE ATTACHED SHEETS

(7) PREPARED BY: [Signature] DATE: 3-23-84

(8) SAFETY EVALUATION

This change:

Yes No Represents a change to the station or procedures as described in the FSAR, or a test or experiment not described in the FSAR?
Yes No Requires a change to the station Technical Specifications?
Yes No Involves an unreviewed safety question?

If the answer to any of the above is "Yes", attach a detailed explanation. As appropriate attach a completed "Nuclear Safety Evaluation Check List" form.

By: [Signature] Date: 3-23-84

(9) REVIEWED BY: [Signature] DATE: 3/23/84

Cross-Disciplinary Review By: _____ N/R: 1/21

(10) TEMPORARY APPROVAL (IF NECESSARY):

By: _____ (SRO) Date: _____
By: _____ Date: _____

(11) APPROVED BY: _____ DATE: 3/23/84

(12) MISCELLANEOUS:

Reviewed/Approved By: _____ Date: _____
Reviewed/Approved By: _____ Date: _____

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD CONTINUATION FORM

ID No: TP/1A/1350/25A
Change No: 3
Page 2 of 5

DESCRIPTION OF CHANGE:

① ON ENCLOSURES 13.3 AND 13.5 MAKE CHANGES PER THE ATTACHED SHEETS.

② ON ENCLOSURE 13.5 PAR. 1 CHANGE "AIR BLEDS FILTRATED EAST FAN" TO "AIR BLEDS FILTRATED EAST FAN 1A"

REASON FOR CHANGE:

① CHANGES ARE NECESSARY TO VERIFY THAT FANS AUTOMATICALLY CASUATE PROPERLY WITH STALLING DURING PLANT LOADS.

② Typo

CATAWBA NUCLEAR STATION
D/G 1A B/O AND LOAD REJECTION
PREOPERATIONAL TEST
TF/1/A/1350/25A
ENCLOSURE 13.3

CH#3
Pg. 3 of 5

ALIGNMENT OF AFFECTED SYSTEMS

___ / ___	1CA71	CA Pump 1A Disch. To UST Dome Throttle	- Open
___ / ___	1CA72	CA Pump 1A Disch. To UST Dome Throttle	- Open
___ / ___	1CA179	CA Pump 1A Disch. To UST Dome Throttle - Throttled to 500 ± 50 gpm	
___ / ___		CA Pump 1A - Running	

Containment Ventilation System (VV)

___ / ___ Align the VV System as follows:

___ / ___ Place the following switches in AUTO on IMC-3 *AND ENSURE FANS ARE OPERATING:*
VV UFR CONT RET FAN 1A
VV UFR CONT RET FAN 1C

___ / ___ Place the following switches on IMC-3 to ~~OFF~~ *MAX* ~~AND ENSURE FANS ARE OPERATING:~~
VV UCVU 1A
VV UCVU 1C

___ / ___ Place the following damper control switches on IMC-3 to AUTO:
Lower Containment Vent Damper 1LCVU-D-1
Lower Containment Vent Damper 1LCVU-D-3

___ / ___ Place the following switches on IMC-3 in the ~~STOP~~ *NORM* position:
VV LCVU 1A MAX
VV LCVU 1C MAX

___ / ___ Place the following switches on IMC-3 in the ~~STOP~~ *HIGH* position *AND ENSURE FANS ARE OPERATING:*
VV LCVU 1A
VV LCVU 1C

___ / ___ Place control switch for Pipe Tunnel Bstr Fan 1A to ~~STOP~~ *HIGH* position on IMC-3 *AND ENSURE FAN IS OPERATING.*

___ / ___ ~~Place the control switch for Incore Inst Bstr Fan 1A to STOP position on IMC-3. IS OPERATING.~~

CATAWBA NUCLEAR STATION
P/G 1A P/G AND LOAD REJECTION
OPERATIONAL TEST
TR/1/A 1550/25A
ENCLOSURE 13.3

CL#3
PG 4 of 5

ALIGNMENT OF AFFECTED SYSTEMS

ENSURE THE FOLLOWING FANS ARE OPERATING:
~~ENSURE THE FOLLOWING SWITCHES ON IMC-3 ARE IN THE OFF POSITION:~~

- CED VENT FAN #1A
- CED VENT FAN #1C

Place the control switch for the Incore Inst km
ARE 1A to the III position on IMC-3 AND UNSURE FAN
IS OPERATING MAX

Nuclear Service Water System (KN)

Align the KN System per OP/1/A/6400/06C, Section 3.0 for the startup of Train A with the following conditions:

Place the KC Hx Discharge Valve 1KN291 in "Temp Flow".

Place the KC Hx Discharge Valve 1KN351 in "Mini-Flow Mode".

1KN376 KC Hx 1A Inlet Isol - Oper

1KN375 KC Hx 1E Inlet Isol - Oper

KN Pump 1A - Running

Control Room Ventilation System (VC)

Align the VC System per OP/1/A/6450/11, Section 3.0 for Train A.

Auxiliary Building Ventilation System (VA)

Align the VA system per OP/0/A/670/05, Section 3.0 with the following conditions or exceptions:

Ensure that modification specified in Step 8.1 has been installed.

All filtered and unfiltered exhaust and supply fans are off.

ASP HVAC Unit 1A and 1B are off.

CATAWBA NUCLEAR STATION
 DC-1A B/C AND LOW REJECTION
 PROBABILISTIC TEST
 TEST A 1990-1991
 ENCLOSURE 1-3

CH 43
 PG 5 of 8

EQUIPMENT OPERATION

Load Group 3

CKDM Vent Fan CKDM-1A - ON /
 CKDM-1C - ON /

Lower Containment Vent Unit LCVU-1A - ON - **LOW** /
 LCVU-1C - ON - **LOW** /

Upper Containment Vent Unit UCVCU-1A - ON - **NORM** /
 UCVCU-1C - ON - **NORM** /

Cont Pipe Tunnel Fooster Fan 1A - ON - **LOW** /

Upper Containment Air Return Fan UCAF-1A - ON /
 UCAF-1C - ON /

Incore Instrument Tunnel Fooster Fan 1A - ON /

Incore Instrument Loop Vent Unit 1A - ON - **NORM** /

E/O MOV DMS, PLS PLS TIXI-40 - CLOSED /

E/O MOV DMS, PLS PLS TIXI-51 - CLOSED /

Load Group 4

Component Cooling Pumps 1A1 and 1A2 - ON /

Load Group 7

Nuclear Service Water Pump 1A - ON /

Nuclear Service Water Pump 2A - Breaker 2ETA-14 is Closed in Test Position /

Load Group 8

Aux Feedwater Pump Motor 1A - ON /

Load Group 1

Reactor Making Water Pump 1A - ON /

Peric Acid Test Loop Unit Heaters - ON /

E/O MOV DMS, PLS PLS TIXI-10 - CLOSED /

Peric Acid Test Loop Unit Heaters - ON /

Fire Protection Dry Box Fan Motor A - ON /

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD

(1) ID No: 70114125025A
Change No: 2
Permanent/Restricted To

(2) STATION: CATAWBA
(3) PROCEDURE TITLE: DIGIA BLOCK - AND LOAD DETECTION REPROGRAMMING TEST

(4) SECTION(S) OF PROCEDURE AFFECTED: 13.0 13.0 9.0

(5) DESCRIPTION OF CHANGE: (Attach additional pages, if necessary.)
SEE ATTACHED SHEET

(6) REASON FOR CHANGE:
SEE ATTACHED SHEET

(7) PREPARED BY: [Signature] DATE: 3-5-84

(8) SAFETY EVALUATION

This change:
Yes No Represents a change to the station or procedures as described in the FSAR, or a test or experiment not described in the FSAR?
Yes No Requires a change to the station Technical Specifications?
Yes No Involves an unreviewed safety question?

If the answer to any of the above is "Yes", attach a detailed explanation. As appropriate attach a completed "Nuclear Safety Evaluation Check List" form.

By: [Signature] Date: 3-15-84

(9) REVIEWED BY: [Signature] DATE: 3/23/84

Cross-Disciplinary Review By: _____ N/R: 1071

(10) TEMPORARY APPROVAL (IF NECESSARY):

By: _____ (SRO) Date: _____
By: _____ Date: _____

(11) APPROVED BY: _____ DATE: 3/23/84

(12) MISCELLANEOUS:
Reviewed/Approved By: _____ Date: _____
Reviewed/Approved By: _____ Date: _____

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD CONTINUATION FORM

ID No: 7011A/1350/251
Change No: 2
Page 2 of 2

DESCRIPTION OF CHANGE:

- ① Add to Enclosure 13.3 UNDER Aux FEEDBACK SYSTEM (CA):
—— 1 —— VALVES ICA3EA, ICA4EA, ICA52B AND ICA64B
CLOSED
- ② Add to Enclosure 13.5 UNDER LOAD GROUP 1:
VALVES ICA3EA, ICA4EA, ICA52B AND ICA64B - OPEN —— 1 ——
- ③ Add to Part 12.0 TEST PROCEDURES:
11.0 - Steps 12.1 through 12.3 are to be performed in the same
sequence as in the original. Steps 12.4 and 12.5 are
independent and may be performed after completion
of steps 12.1 through 12.3.
- ④ Add "For steps 12.1 through 12.3" across to the following steps:
6.1, 6.2, 6.3, 6.6, 6.7, 6.10, 6.11, 6.14
- ⑤ Add 6.14.5 and "Diesel Generator 1A is operating parallel
with offsite power" for steps 12.4 and 12.5.
- ⑥ Delete step 12.4.7

REASON FOR CHANGE:

- ① → ② VALVES OPEN ON BLACKOUT. THEY NEED TO BE
UNIFIED TO OPERATE PROPERLY IN THIS TEST.
- ③ → ④ THESE CHANGES ALLOW THE LOAD REGULATION TESTING TO
BE PERFORMED INDEPENDENTLY OF THE LOADS IN OPERATION
IN THIS TEST.

DUKE POWER COMPANY
PROCEDURE MAJOR CHANGE
PROCESS RECORD

(1) ID No: TP111/1135/1251
Change No: 1
Permanent/Restricted To

(2) STATION: CATAWBA

(3) PROCEDURE TITLE: D/G 1A BLACKW AND LEAD REJECTION PROCEDURAL TEST

(4) SECTION(S) OF PROCEDURE AFFECTED: 1.0, 11.0

(5) DESCRIPTION OF CHANGE: (Attach additional pages, if necessary.)

- ① CHANGED 1.7 CHANGE "825" TO "824"
- ② CHANGED 11.1 CHANGE "12.1 AND 12.1" TO "12.1 AND 12.2"

(6) REASON FOR CHANGE:

- ① VALUE WAS LARGELY OBTAINED UP IN ACCEPTABLE CRITERIA, SECTION 1.7 NEEDS TO REFLECT THE POSITIVE
- ② THIS IS ACCEPTABLE CRITERIA IS MENTIONED IN SECTIONS 12.1 AND 12.2

(7) PREPARED BY: [Signature] DATE: 3-15-64

(8) SAFETY EVALUATION

This change:

- Yes No Represents a change to the station or procedures as described in the FSAR, or a test or experiment not described in the FSAR?
- Yes No Requires a change to the station Technical Specifications?
- Yes No Involves an unreviewed safety question?

If the answer to any of the above is "Yes", attach a detailed explanation. As appropriate attach a completed "Nuclear Safety Evaluation Check List" form.

By: [Signature] Date: 3-15-64

(9) REVIEWED BY: [Signature] DATE: 3-15-64

Cross-Disciplinary Review By: _____ N/R: ASB

(10) TEMPORARY APPROVAL (IF NECESSARY):

By: _____ (SRO) Date: _____
By: _____ Date: _____

(11) APPROVED BY: [Signature] DATE: 3/15/64

(12) MISCELLANEOUS:

Reviewed/Approved By: _____ Date: _____
Reviewed/Approved By: _____ Date: _____

DUKE POWER COMPANY
PROCEDURE PREPARATION
PROCESS RECORD

(1) ID No: TP/1/A/1350/25A
Change(s) 0 to
0 Incorporated

(2) STATION: Catawba

(3) PROCEDURE TITLE: D/G 1A Blackout and Load Rejection Preoperational Test

(4) PREPARED BY: Ronald A. Jones / Robert S. Robinson DATE: 3-2-84

(5) REVIEWED BY: Dennis Robinson DATE: 3-6-84

Cross-Disciplinary Review By: CY Hugel ³⁻⁶⁻⁸⁴ N/R: SRC 84/9

(6) TEMPORARY APPROVAL (IF NECESSARY):

By: _____ (SRO) Date: _____

By: _____ Date: _____

(7) APPROVED BY: Jw. lux Date: 3/7/84

(8) MISCELLANEOUS:

Reviewed/Approved By: _____ Date: _____

Reviewed/Approved By: _____ Date: _____

CONTROL COPY

DUKE POWER COMPANY
 CATAWBA NUCLEAR STATION
 D/G 1A BLACKOUT AND LOAD REJECTION
 PREOPERATIONAL TEST

1.0 PURPOSE

- 1.1 Verify proper operation of the degraded bus voltage protection on 1ETA switchgear.
- 1.2 Verify that:
- 1.2.1 D/G 1A can start automatically and energize the emergency bus with permanently connected loads within acceptable time limits.
 - 1.2.2 The load shed feature operates properly.
 - 1.2.3 D/G 1A can accept the B/O design loads in committed sequence and maintain voltage and frequency within acceptable limits.
 - 1.2.4 D/G 1A Blackout auto-connected loads do not exceed the two hour rating.
 - 1.2.5 D/G 1A operates for greater than or equal to 5 minutes while loaded with blackout loads.
- 1.3 Verify that the D/G can accept the B/O design loads under an accelerated sequence and maintain voltage and frequency within acceptable limits.
- 1.4 Verify that D/G 1A can synchronize with offsite power while connected to emergency loads, transfer these loads to the offsite power source and proceed through a shutdown sequence returning the D/G to standby.
- 1.5 Verify that a hot bus transfer on the B/O switchgear can be performed once synchronized with normal offsite power.
- 1.6 Verify that D/G 1A does not trip due to a complete loss of load.
- 1.7 Verify that DG/1A can reject a load of \geq ⁸³⁴~~625~~ KW without exceeding the acceptable voltage and frequency limits.
- 1.8 Verify that during B/O actuation, the essential and B/O trains are independent and isolated from each other.

NOTE: The sequencer logic and load sequencing time intervals are verified in TP/1/A/1350/09A - D/G 1A Load Sequencer Preoperational Test.

CW
RAS

2.0 REFERENCES

NOTE: The latest Document Revisions (and change order numbers, if applicable) used to develop this procedure are given on Enclosure 13.1.

2.1 System Descriptions:

2.1.1 CNSD-0114-01, D/G Load Sequencer

2.1.2 CNSD-0120-01, D/G Electrical Controls

2.2 CNS FSAR:

2.2.1 Section 8.3.1.1.3, Standby Power Supplies

2.2.2 Table 8.3.1-1, Maximum loads to be supplied from one of the Redundant Engineered Safety Power Distribution System.

2.3 CNS Tech Specs 4.8.1.1.2, D/G Surveillance Requirement.

2.4 Reg Guides:

2.4.1 1.108, Preoperational Testing of D/G

2.4.2 1.9, Requirements for D/G Testing

2.4.3 1.41, Preoperational Testing of Redundant Onsite Electric Power Systems to verify load group assignments.

2.5 One Line Diagrams:

2.5.1 CN-1702-02.01, 4160V Ess. Swgr. 1ETA

2.5.2 CN-1702-04.01, 4160V B/O SWGR

2.5.3 CN-1703-01.01, 600V Ess. 1ELXA, 1ELXC

2.5.4 CN-1703-04.01, 600V B/O LC 1LXI, 1LXH

2.6 OP/1/A/6350/02, D/G Operation

3.0 TIME REQUIRED

3.1 One (1) Test Coordinator - 16 Hours

3.2 One (1) Control Room Operator - 16 Hours

3.3 One (1) Performance Technician - 16 Hours

3.4 One (1) Nuclear Equipment Operator - 16 Hours

NOTE: The preparation of this test requires lining up of several other systems.

4.0 PREREQUISITE TESTS

None

5.0 TEST EQUIPMENT

5.1 Digital Multimeter (Fluke 8600A or equivalent used only to verify absence of bus voltages)

NOTE: The D/G High Speed Visicorder on the 1DGPA Panel will be used to take data.

6.0 LIMITS AND PRECAUTIONS

6.1 Refer to limits and precautions of operating procedure OP/1/A/6350/02, Diesel Generator Operation.

7.0 REQUIRED STATION STATUS

RAJ 13-28-84 7.1 Ensure that referenced drawings and system descriptions are the latest revision in Master File or have been reviewed on Enclosure 13.1.

8.0 PREREQUISITE SYSTEM CONDITIONS

CH#2 R/S
RAJ 13-28-84 8.1 *FOR SECTIONS 12.1 THROUGH 12.3:*
1 Open Link B-17 in 1ELCP0112 to reposition 1ABF-D-11, 13 and 16 (CNEE-0166-01.47)
RAJ 13-28-84 *ADS 13/28/84* *8.1.1 OPEN LINK E-42 IN UNIT 16 TO PREPARE LOSS OF MAIN FWD PUMP OPERATION CA PUMPS.*
CH#8 R/S CAUTION: If performance of this procedure is suspended for any reason for a period exceeding 24 hours, this modification must be returned to normal, or the proper station modification procedure must be implemented per Station Directive 4.4.3.

CH#2 R/S 8.2 *FOR SECTIONS 12.1 THROUGH 12.3:*
1 Perform the following to prevent the Blackout Motor Control Centers from transferring to their alternate sources.

RAJ 13-28-84 8.2.1 Ensure selector switch for 1LXN-4C (ALT FDR TO 1MXW) is in the MANUAL position.

RAJ 13-28-84 8.2.2 Ensure selector switch for 1LXN-5D (ALT FDR TO 1MXO) is in the MANUAL position.

RAJ 13-28-84 8.2.3 Ensure selector switch for 1LXB-5D (ALT FDR TO 1MXQ) is in the MANUAL position.

CH#2 R/S RAJ 13-28-84 8.3 *FOR SECTIONS 12.1 THROUGH 12.3:*
1 All systems that will be sequenced into operation have been filled, vented and aligned as specified in Enclosure 13.3.

RAJ 13-28-84 8.4 The Unit 1 Operational Aid Computer (OAC) is operational.

RAJ 13-28-84 8.5 The Unit 1 Diesel Generator 1A, along with all support systems, are operable and aligned for B/O actuation. D/G 1A visicorder must also be operable.

CH#2 R/S RAJ 13-28-84 8.6 *FOR SECTIONS 12.1 THROUGH 12.3:*
1 The Unit 1 D/G Load Sequencer 1A is operable.

CH#6 R/S RAJ 13-28-84 8.6.1 *PLACE A JUMPER BETWEEN FUSE 1A-20 AND SLIDING LINK D-28 IN ENCLOSURE 1 TO PREPARE S/GS IN UNITS IN THE SA VENTS -*
CAUTION: SIT AND FEEL WITH 5704-1

CHP2
RIS

For Sections 12.1 through 12.3:
8.7 The following pumps are operable with no deficiencies noted. Items to be checked include oil reservoir levels, ventilation path available for motors, no mechanical interference, manual isolation valves open and no red or white tags.

- RAS 132884 8.7.1 RN Pump 1A
- RAS 132884 8.7.2 NV Pump 1A
- RAS 132884 8.7.3 KC Pumps 1A1, 1A2

CHP4
RIS
RAS 132884
RAS 132884
RAS 132884

8.7.4 CA Pump 1A
Ensure that the Auxiliary Shutdown Panel Transfer Switch remains in the Control Room position throughout this test.

RAS 132884 8.9 Ensure that the SSF transfer switch remains in the Control Room position throughout this test.

CHP2
RIS
RAS 132884

For Sections 12.1 through 12.3:
8.10 Ensure electrical alignment on Enclosure 13.4 is complete.

CHP4
RIS
RAS 132884

For Sections 12.1 through 12.3:
8.11 Contact I&E and verify that the equipment necessary to take the load profile for the Vital & Diesel batteries has been installed.

RAS 132884 8.12 Ensure the following event recorder and computer points are checked out:

- 1ER262 1ETA Norm Inc FDR Open
- 1ER284 1ETA DG Bkr Closed
- A0575 4KV 1ETB Bus Voltage
- 1ER584 SWGR 1ETA Degraded Bus Voltage Trip
- A0574 4KV Bus ETA Feed From D/G A MW

CHP5
RIS

(TURNED OVER FROM CONSTRUCTION, NOT IN SCHED)

RAS 132884 8.13 Record multimeter to be used for Section 12.1 information:

ID # CNIA18973

Cal. Due Date 29 APR 84

RAS 132884 8.14 For Sections 12.1 through 12.3:
Annunciator 1AD11.07.06 "SWGR 1ETA Degraded Bus Voltage" has been turned over from Construction.

RAS 133084 8.15 For Sections 12.4 and 12.5: Diesel Generator 1A is operating parallel with off-site power.

9.0 TEST METHOD

The degraded bus voltage logic is verified by demonstrating the alarms and tripping functions on the normal incoming breaker to the 4160V Essential Switchgear work properly. The degraded bus voltage tripping function then initiates a Blackout Loading Sequence (committed) on the Train A Blackout and Essential Switchgears. Train B Blackout and Essential Switchgears have been de-energized for the test to verify independence and isolation from the Train A Switchgear through the use of bus voltage measurements. Proper operation of the load shed, diesel start and sequencer actuation are verified. The D/G is verified to maintain voltage and frequency within acceptable limits during and after the loading sequence. Total Blackout Auto Connected Load is verified not

For Sections 12.1 through 12.2: Place annunciator across links F-1 and F-2 in order to bypass fire protection and radiation monitoring instruments.
For Sections 12.1 through 12.2: Place annunciator across links E-54 and E-27 in order to bypass fire protection and radiation monitoring instruments.
CAUTION: SWITCHING EQUIPMENT IS IN PROGRESS.

CHP2
RIS
CHP2
RIS

CHP4
RIS

RAS 132884
RAS 132884

to exceed the two hour D/G rating. The D/G is then verified to be able to be paralleled to offsite power, transfer its loads to the offsite power source and proceed through a shutdown sequence returning it to standby status.

The degraded bus voltage logic is then verified to properly trip the 4160V Essential Switchgear alternate incoming breaker. The degraded bus voltage tripping function then initiates a blackout loading sequence (accelerated) on the Train A Blackout and Essential Switchgears. The D/G is verified to maintain voltage and frequency within acceptable limits during and after the loading sequence.

The hot bus transfer function between the normal and alternate incoming breakers to the B/O Switchgear is verified to operate properly when the D/G is paralleled to the offsite power source.

Finally, two load rejection tests are performed on the D/G. First a load rejection equivalent to the largest single load (> 834 KW) is performed followed by a full load (> 7075 KW) rejection. During both load rejection tests D/G parameters are verified to not exceed acceptable values.

10.0 DATA REQUIRED

10.1 D/G Voltage - Visicorder

10.2 D/G Power - Visicorder

10.3 D/G Frequency - Visicorder

11.0 ACCEPTANCE CRITERIA

11.1 The degraded bus voltage protection circuit operates properly as described in Sections 12.1 and 12.12.

11.2 The D/G can:

11.2.1 Start automatically and energize the emergency bus with permanently connected loads in ≤ 11 seconds.

11.2.2 Properly load shed those loads as described in Section 12.1

11.2.3 Maintain its frequency at not less than 95% of nominal and returning it to within 2% of nominal in less than 60% of each load sequence time interval. (For both committed and accelerated loading sequences).

11.2.4 Maintaining voltage at not less than 75% of nominal and returning it to within 10% of nominal in less than 60% of each load sequence time interval. (For both committed and accelerated loading sequences).

11.2.5 Operate for greater than or equal to 5 minutes while loaded with blackout loads.

11.3 The auto connected total load to the D/G does not exceed 7617 KW.

- 11.4 The D/G can:
 - 11.4.1 Synchronize with the offsite power source while the D/G is loaded with its emergency loads,
 - 11.4.2 Transfer its loads to the offsite power source, and
 - 11.4.3 Be restored to its standby status.
- 11.5 The B/O Switchgear Hot Bus transfer operates properly as described in Section 12.3.
- 11.6 The D/G rejects a load of ≥ 7075 KW without tripping. The D/G speed does not exceed 500 RPM during and following the rejection.
- 11.7 The D/G rejects a load of ≥ 834 KW while maintaining voltage at $4160 \pm 420V$ and frequency at 60 ± 1.2 Hz.
- 11.8 Train A and B Essential and B/O Power Systems are independent of each other by showing the following:
 - 11.8.1 Train B Essential Buses and B/O Buses remain without voltage during Train A operation.

12.0 PROCEDURE

CH #2 R/S
 NOTE: Sections 12.1 through 12.3 ARE SEQUENTIAL AND SHOULD BE PERFORMED IN ORDER. SECTIONS 12.4 AND 12.5 ARE INDEPENDENT AND MAY BE PERFORMED BEFORE OR AFTER SECTIONS 12.1 THROUGH 12.3

12.1 Train A Blackout Loading (Committed Sequence) and Degraded Bus Voltage Verification (Tripping 1ETA3)

R/S 1/3-28-84

12.1.1 Ensure that Prerequisite Tests, Required Station Status and Prerequisite System Conditions for this section are completed and met as required.

*R/S 1/3-28-84
 ASB 1/5/84*

12.1.2 Open Test Switch H on test block PD located on 1EATC16.

CAUTION: If performance of this procedure is suspended for any reason for a period exceeding 24 hours, this modification must be returned to normal, or the proper station modification procedure must be implemented per Station Directive 4.4.3.

*R/S 1/3-28-84
 ASB 1/5/84*

12.1.3 Open Test Switch H on test block PE located on 1EATC16.

CAUTION: If performance of this procedure is suspended for any reason for a period exceeding 24 hours, this modification must be returned to normal, or the proper station modification procedure must be implemented per Station Directive 4.4.3.

CAUTION: Do not leave this switch open any longer than necessary to verify annunciator. Actual B/O will occur after 10 minutes.

RAS / 3-28-84

12.1.4 Verify that annunciator 1AD11.07.06, "SWGR 1ETA Degraded Bus Voltage", alarms after approximately 40 seconds.

RAS / 3-28-84
AB / 3/28/84

12.1.5 Close Test Switch H on test block PE located on 1EATC16.

RAS / 3-28-84

12.1.5.1 Verify annunciator 1AD11.07.06 clears.

RAS / 3-28-84
AB / 3/28/84

12.1.6 Open Test Switch H on test block PF located on 1EATC16.

CAUTION: If performance of this procedure is suspended for any reason for a period exceeding 24 hours, this modification must be returned to normal, or the proper station modification procedure must be implemented per Station Directive 4.4.3.

CAUTION: Do not leave this switch open any longer than necessary to verify annunciator. Actual B/O will occur after 10 minutes.

RAS / 3-28-84

12.1.7 Verify that annunciator 1AD11.07.06, "SWGR 1ETA Degraded Bus Voltage", alarms after approximately 40 seconds.

RAS / 3-28-84
AB / 3/28/84

12.1.8 Close Test Switch H on test block PD located on 1EATC16.

RAS / 3-28-84

12.1.8.1 Verify that annunciator 1AD11.07.06 clears.

RAS / 3-28-84

12.1.9 Open breaker 1EDF-F01F to disable D/G Load Sequencer 1B and verify loss of power by Control Room alarm.

RAS / 3-28-84

12.1.10 Open 1ETB3 (Normal Incoming Feeder to Train B Essential Switchgear) and 1GTB1 (Normal Incoming Feeder to Train B B/O Switchgear). (There should not be a breaker in 1ETB4 cubicle.)

RAS / 3-28-84

12.1.11 Open breaker 1CDB-F02I to disable 1FTB/1GTB Control Power.

12.1.12 Open the following breakers to de-energize Train B 125 VDC Vital and Diesel Power Systems:

RAS / 3-28-84

12.1.12.1 1EDB-F02A (Verify loss of voltage by meter on 1EDB)

RAF 13-28-84

12.1.12.2 1EDD-F02A (Verify loss of voltage by meter on 1EDD)

RAF 13-28-84

12.1.12.3 1DGCB Battery Breaker (Verify loss of voltage by meter on 1DGDB).

RAF 13-28-84
ASB 3/28/84

12.1.13 Open Sliding Link G-6 in Panel 1-DGLSA-1 to disable Accelerated Sequence Relays EA (AA1), and EB (AA2). This will allow the Diesel Generator Load Sequencer to load using the Committed Sequence only.

CAUTION: If performance of this procedure is suspended for any reason for a period exceeding 24 hours, this modification must be returned to normal, or the proper station modification procedure must be implemented per Station Directive 4.4.3.

RAF 13-28-84

12.1.14 Verify that D/G 1A is in standby and capable of operation. Have D/G Coordinating Engineer prepare the D/G Visicorder such that D/G voltage, frequency and power can be recorded.

RAF 13-28-84

12.1.15 Have I&E start Multipoint Recorder to obtain load profiles of the Vital & Diesel Batteries.

RAF 13-28-84
ASB 3/28/84

12.1.16 Open Test Switch H on test block PE located on 1EATC16.

CAUTION: If performance of this procedure is suspended for any reason for a period exceeding 24 hours, this modification must be returned to normal, or the proper station modification procedure must be implemented per Station Directive 4.4.3.

RAF 13-28-84

12.1.17 Verify that annunciator 1AD11.07.06, "SWGR 1ETA Degraded Bus Voltage", alarms after approximately 40 seconds.

12.1.18 After approximately 10 minutes:

RAF 13-28-84

12.1.18.1 Verify that 1ETA3 (Normal Incoming Feeder to Train A Essential Switchgear) is tripped and immediately perform Step 12.1.18.2

RAF 13-28-84

12.1.18.2 Trip 1TA4 (XFMR 1ATC Feeder Breaker).

RAF 13-28-84

12.1.18.3 Verify that 1GTA1 (Normal Incoming Feeder to Train A Blackout Switchgear) is tripped.

RAF 13-28-84

12.1.18.4 Verify that D/G Load Sequencer 1A is actuated.

RAF/3-28-84

12.1.18.5 Verify that D/G 1A starts.

RAF/3-28-84
ASB/3/28/84

12.1.18.6 Close Test Switch H on test block PE loaded on 1EATC16.

RAF/3-28-84
ASB/3/28/84

12.1.18.7 Close Test Switch H on test block PF located on 1EATC16.

RAF/3-28-84

12.1.18.8 Verify that event Recorder Point ER584, "SWGR 1ETA Degraded Bus Voltage Trip" has occurred.

12.1.19

Verify the following actions occur approximately 8.5 seconds after D/G start (may be verified visually or through the use of Control Room Alarms):

RAF/3-28-84

12.1.19.1 1ETA5 (XFMR 1ETXA FDR BKR) remains closed.

RAF/3-28-84

12.1.19.2 1ETA6 (KC PUMP MTR 1A1) is tripped.

RAF/3-28-84

12.1.19.3 1ETA7 (KC PUMP MTR 1A2) is tripped.

RAF/3-28-84

12.1.19.4 1ETA8 (NS PUMP MTR 1A) is tripped.

RAF/3-28-84

12.1.19.5 1ETA9 (ND PUMP MTR 1A) is tripped.

RAF/3-28-84

12.1.19.6 1ETA10 (XFMR 1ETXE FDR BKR) remains closed.

RAF/3-28-84

12.1.19.7 1ETA11 (NI PUMP MTR 1A) is tripped.

RAF/3-28-84

12.1.19.8 1ETA12 (NV PUMP MTR 1A) is tripped.

RAF/3-28-84

12.1.19.9 1ETA13 (CA PUMP MTR 1A) is tripped.

RAF/3-28-84

12.1.19.10 1ETA14 (RN PUMP MTR 1A) is tripped.

RAF/3-28-84

12.1.19.11 1ETA15 (KF PUMP MTR 1A) is tripped.

RAF/3-28-84

12.1.19.12 1ETA16 (XFMR 1ETXC FDR BKR) remains closed.

RAF/3-28-84

12.1.19.13 1ETA17 (A/C COMP FDR) is tripped.

RAF/3-28-84

12.1.19.14 Valves 1SA2 and 1SA5 open.

NOTE: Have someone stationed at 1ELXA and 1ELXC to verify the following two breakers.

RAF/3-28-84

12.1.19.15 1ELXA-4B (NORM INC BKR) is tripped.

RAF 1328-89

12.1.19.16 1ELXC-4B (NORM INC BKR) is tripped.

NOTE: Have someone stationed at 1LXI to verify the following breaker.

RAF 1328-89

12.1.19.17 1LXI-5D (1CCA FDR BKR) is tripped.

RAF 1328-89

12.1.20 Follow the following sequence of events. Verify proper equipment actuation on Enclosure 13.5.

<u>TIME</u>	<u>EVENT</u>
0 Sec	Initiation E/O
8.5 Sec	Load Shed
10.0 Sec	D/G BKR (1ETA18) Closes
11.0 Sec	1ETA2 and 1FTA1 Have Closed
12.0 Sec	Load Group 1 energized.
	Load Group 2 energized.
	NV Pump 1A starts.
15.0 Sec	Load Group 3 energized.
30.0 Sec	Load Group 6 energized.
	KC Pumps 1A1 and 1A2 start.
35.0 Sec	Load Group 7 energized.
	RN Pump 1A starts.
40.0 Sec	Load Group 8 energizes.
	CA Pump 1A starts.
60.0 Sec	Load Group 10 energizes.
10.0 Min	Load Group 11 energizes.
	Control Room and Control Room Area ventilation starts.
11.0 Min	Load Group 12 energizes. Control Room Chilled Water Compressor Motor starts.
12.0 Min	Load Group 13 energizes.

RAF 1328-89

12.1.20.1 Allow D/G to operate for ≥ 5 minutes with Blackout loads connected.

RAF 1328-89

12.1.20.2 Record D/G Auto-Connected Load per computer point A0574 on Enclosure 13.10.

12.1.21 After start verification of KF Pump 1A is complete, reset the following signal:

RAF 1328-89

12.1.21.1 Reset D/G Load Sequencer 1A.

12.1.22 Verify absence of voltage on Train B Essential and Blackout Power Systems as follows:

RAF 1328-89

12.1.22.1 1ETB Bus through computer point A0575 "4KV 1ETB Bus Voltage"

RAF 1328-89

12.1.22.2 1FTB Bus using local voltmeter on 1FTB Bus.

12.1.22.3 The following Essential and B/O Load Centers through their local voltmeter:

RAF 13-28-87

12.1.22.3.1 1ELXB

RAF 13-28-87

12.1.22.3.2 1ELXD

RAF 13-28-87

12.1.22.3.3 1LXH

~~RAF~~ TYO-RAF

12.1.22.4 The following 600V Essential and B/O Motor Control Centers using a Digital Multimeter:

RAF 13-28-87

12.1.22.4.1 1EMXB

RAF 13-28-87

12.1.22.4.2 1EMXD

RAF 13-28-87

12.1.22.4.3 1EMXF

RAF 13-28-87

12.1.22.4.4 1EMXJ

RAF 13-28-87

12.1.22.4.5 1EMXL

RAF 13-28-87

12.1.22.4.6 1EMXR

~~RAF 13-28-87~~

~~12.1.22.4.7 1EMXP~~

CIT 87
RAF

~~RAF 13-28-87~~

~~12.1.22.4.8 1EMXN~~

~~RAF 13-28-87~~

~~12.1.22.4.9 1EMXR~~

12.1.22.5 The following 120 VAC Essential and B/O Power Panel Boards using a Digital Multimeter:

RAF 13-28-87

12.1.22.5.1 1EKPJ

RAF 13-28-87

12.1.22.5.2 1EKPB

RAF 13-28-87

12.1.22.5.3 1EKPF

~~RAF 13-28-87~~

~~12.1.22.5.4 1KPX~~

CIT 87
RAF

12.1.22.6 The following 125VDC distribution centers through their local voltmeter:

~~RAF 13-28-87~~

~~12.1.22.6.1 1CDB~~

RAF 13-28-87

12.1.22.6.2 1EDB

RAF 13-28-87

12.1.22.6.3 1EDD

RAF 13-28-87

12.1.22.6.4 1DGDB

RAF 13-28-84

12.1.23 Transfer breaker from 1ETA3 cubicle to 1ETA4 cubicle.

RAF 13-28-84

12.1.24 Close breaker 1TA4 (XFMR 1ATC FDR BKR).

RAF 13-28-84

12.1.25 Have Operations parallel D/G 1A following OP/1/A/6350/02, Section 5.6.

NOTE: Train B Essential and Blackout Power Systems may be re-energized at this time.

RAF 13-28-84

12.1.26 Attach and label a copy of the Visicorder chart to this procedure as Enclosure 13.6 "D/G Parameters During Committed Sequence Loading". Record actuation times for event recorder points 1ER282 and 1ER284 on Enclosure 13.10.

RAF 13-28-84

12.1.27 Close Sliding Link G-6 in 1DGLSA-1.

RAF 13-28-84

RAF 13-28-84

12.1.28 Have Operations reduce D/G 1A load and then shutdown D/G 1A per OP/1/A/6350/02, Section 5.0.

12.2 Train A Blackout Loading (Accelerated Sequence) and Degraded Bus Voltage Verification (Tripping 1ETA4).

RAF 3-31-84

RAF 13-28-84

12.2.1 Verify that D/G 1A is in standby and capable of operation. Have D/G Coordinating Engineer prepare the D/G Visicorder such that D/G voltage, frequency and power can be recorded.

RAF 3-31-84

RAF 13-28-84

12.2.1.1

DE-ENERGIZE BUS B FROM INCOMING FEEDER AND INHIBIT BY TRIPPING

RAF 3-31-84

12.2.2 Open Test Switch H on test block PD located on 1EATC16.

RAF 13-28-84

ICDB AT TRIP POINT
BROOKLYN ICDB-F09A AND
ICDB-F05B.

CAUTION: If performance of this procedure is suspended for any reason for a period exceeding 24 hours, this modification must be returned to normal, or the proper station modification procedure must be implemented per Station Directive 4.4.3.

RAF 13-31-84

RAF 13/31/84

12.2.3 Open Test Switch H on test block PE located on 1EATC16.

CAUTION: If performance of this procedure is suspended for any reason for a period exceeding 24 hours, this modification must be returned to normal, or the proper station modification procedure must be implemented per Station Directive 4.4.3.

12.2.3 After approximately 10 minutes:

12.2.4.1 Verify that 1ETA4 (Alternate Incoming Feeder to Train A Essential Switchgear) is tripped.

RAF 13-31-84

RAF 3-31-84 RAF 5/31/84
RAF 13/31/84 RAF 2/28/84

12.2.1.2 Place a jumper from LINES C-6 to C-33 in 1EATC111 to permit UNFILTERED EXHAUST FAN TO START (OPERATE IN PARALLEL WITH FILTERED EXHAUST FANS)

12.2.1.3 Place a jumper from LINES H-1 to H-2 in 1EATC112 to allow FAN ROOM EXHAUST FAN TO RUN INDEPENDENTLY OF THE INTRUSION WITH OTHER FANS - C-6 AND C-33 AND C-33 B-1

RAF 3-31-84 RAF 3/31/84
RAF 13/31/84 RAF 13/28/84

RAF 13/31/84 RAF 13/28/84

R/S 13-31-84

12.2.4.2 Verify that D/G Load Sequencer 1A is actuated.

R/S 13-31-84

12.2.4.3 Verify that D/G 1A starts.

R/S 13-31-84

12.2.4.4 Close Test Switch H on test block PD located on 1EATC16.

~~R/S 13-31-84~~ ASS 3/31/84

R/S 13-31-84 ~~ASS 13/31/84~~

12.2.4.5 Close Test Switch H on test block PE located on 1EATC16.

~~ASS 13/31/84~~

R/S 13-31-84

12.2.5 Verify sequencer sheds loads and commences loading sequence.

12.2.5.1 VERIFY VOLTAGE ON ENCLASURE 13.5 WITH AN ISO SPECIAL DO NOT VERIFY IN SECT 13.2 OPERATE.

R/S 13-31-84

12.2.6 Allow the sequencer to complete its loading sequence.

R/S 13-31-84

12.2.6.1 VERIFY MAXIMUM VOLTAGE IN TRAIL B B/C BUSES WITH DO NOT VERIFY A DIGITAL VOLTMETER

R/S 13-31-84

12.2.7 After loading completion, reset D/G Load Sequencer 1A.

R/S 13-31-84

R/S 13-31-84

12.2.8 Transfer breaker from 1ETA4 cubicle to 1ETA3 cubicle.

R/S 13-31-84

12.2.9 Have Operations parallel D/G 1A following OP/1/A/6350/02, Section 5.0.

R/S 13-31-84

12.2.10 Attach and label a copy of the Visicorder chart to this procedure as Enclosure 13.7 "D/G Parameters During Accelerated Sequence Loading".

R/S 13-31-84

12.2.11 RECORD D/G AND CONVERTER POINT RECORD POINT A0574 ON ENCLASURE 13.10

12.3 Blackout Switchgear 1GTA Hot Bus Transfer Verification

R/S 13-31-84

12.3.1 Ensure Diesel Generator 1A is still operating paralleled with offsite power.

R/S 13-31-84

12.3.2 Depress the close pushbutton for 1GTA1 (Normal Incoming Feeder to 1FTA Blackout Switchgear).

R/S 13-31-84

12.3.3 Verify 1GTA1 closes.

R/S 13-31-84

12.3.4 Verify 1ETA2 and 1FTA1 breakers have tripped.

12.4 Diesel Generator Load Rejection Verification (Equivalent to Largest Single Load)

R/S 13-30-84

12.4.1 Ensure Diesel Generator 1A is still operating paralleled with offsite power.

R/S 13-30-84

12.4.2 Adjust Diesel Generator load to > 834 KW. Record load per computer point A0574 on Enclosure 13.10.

R/S 13-30-84

12.4.3 Start visicorder to monitor D/G voltage, frequency and power.

R/S 13-30-84

12.4.4 Trip 1ETA18 (D/G 1A Breaker).

R/S 13-31-84

- 12.2.6.1 1MXP
- 12.2.6.2 1MXP
- 12.2.6.3 1MXP
- 12.2.6.4 1KXP
- 12.2.6.5 1KXP

R/S 13-31-84

R/S 13-31-84

R/S 13-31-84

C. King
R/S
C. King
R/S

v. King
R/S

RAF 13-30-84

12.4.5 Stop Visicorder.

RAF 13-30-84

12.4.6 Attach and label a copy of the Visicorder chart to this procedure as Enclosure 10.8 "D/G Parameters During \geq 834 KW Load Rejection".

*CH 2
RIT*

~~12.4.7 Have Operations parallel D/G 1A following OP/1/A/6350/02, Section 5.0.~~

12.5 Diesel Generator Load Rejection Verification (Full Load)

RAF 13-30-84

12.5.1 Ensure Diesel Generator 1A is still operating paralleled with offsite power.

RAF 13-30-84

12.5.2 Adjust Diesel Generator Load to \geq 7075 KW. Record load per Computer point A0574 on Enclosure 13.10.

RAF 13-30-84

12.5.3 Start Visicorder to monitor D/G Voltage, Frequency and Power.

RAF 13-30-84

12.5.3 Trip 1ETA18 (D/G 1A Breaker)

RAF 13-30-84

12.5.5 Stop Visicorder.

RAF 13-30-84

12.5.6 Attach and label a copy of the Visicorder chart to this procedure as Enclosure 13.9 "D/G Parameters During Full Load (\geq 7075 KW) Rejection".

12.6 Restoration of Modifications

ASB 12/31/84 12.6.1 Close link B-17 in 1ELCP0112.

RAF 12/31/84

ASB 12/31/84 12.6.2 Remove jumper across shunt links F-1 and F-2 in 1LWCE.

12.7 Acceptance Criteria Verification

RAF 9-1-84

12.7.1 Verify Acceptance Criteria 11.1 is satisfied as demonstrated in Sections 12.1 and 12.2.

12.7.2 Verify Acceptance Criteria 11.2 as follows:

RAF 9-1-84

12.7.2.1 Verify 11.2.1 is satisfied demonstrated in Section 12.1 and documented on Enclosure 13.10.

RAF 9-1-84

12.7.2.2 Verify 11.2.2 and 11.2.5 are satisfied as demonstrated in Section 12.1.

RAF 9-1-84

12.7.2.3 Verify 11.2.3 and 11.2.4 are satisfied by using the Visicorder Printouts attached as Enclosure 13.6 and 13.7.

RAF 9-1-84

12.7.3 Verify Acceptance Criteria 11.3 is satisfied using the values recorded on Enclosure 13.10.

RAF 9-1-84

12.7.4 Verify Acceptance Criteria 11.4 is satisfied as demonstrated in Section 12.1.

RAF 12/31/84

12.6.3 Remove jumper across shunt links E-54 and G-27 in 1LWCE.

RAF 12/31/84

12.6.4 Remove jumper across fuse HA-20 in DCVSL 0001.

RAF 12/31/84

12.6.5 Close link E-42 in 1LWCE. (See attached sheet for 12.6.6 & 12.6.7)

*CH 10
RIT*

*CH 1A
RIT*

*CH 4
RIT*

21149
2115

ASB | 3/31/84 RAS | 3/31/84 12.6.6 REMATE JUMPER ACROSS LINKS C-6 AND
C-33 IN 102CP-0111.

ASB | 3/31/84 RAS | 3/31/84 12.6.7 REMATE JUMPER ACROSS LINES H-1 AND H-2
IN 102CP0112.

~~RA/14-5-84~~
RA/14-5-84
12.7.5

Verify Acceptance Criteria 11.5 is satisfied as demonstrated in Section 12.3.

RA/14-5-84
12.7.6

Verify Acceptance Criteria 11.6 is satisfied by using the Visicorder Printout attached as Enclosure 13.8 and Enclosure 13.10.

RA/14-5-84
12.7.7

Verify Acceptance Criteria 11.7 is satisfied by using the Visicorder Printout attached as Enclosure 13.9 and Enclosure 13.10.

RA/14-5-84
12.7.8

Verify Acceptance Criteria 11.8 is satisfied as demonstrated in Section 12.1.

NOTE: Upon completion of this test, a Work Request should be generated to have I&E place annunciator 1AD11.07.06 in service.

13.0 ENCLOSURES

13.1 Document Revisions

13.2 Reverification Form

13.3 System Lineup

13.4 Electrical Alignment

13.5 Equipment Operation

13.6 D/G Parameters During Committed Sequence Loading

13.7 D/G Parameters During Accelerated Sequence Loading

13.8 D/G Parameters During ≥ 834 KW Load Rejection

13.9 D/G Parameters During Full Load (≥ 7075 KW) Rejection

13.10 Event Recorder Actuation Times and D/G Load Values

CATAWBA NUCLEAR STATION
D/G 1A B/O AND LOAD REJECTION
PREOPERATIONAL TEST
TP/1/A/1350/25A
ENCLOSURE 13.3

ALIGNMENT OF AFFECTED SYSTEMS

Chemical Volume and Control System (NV)

RAF / 3-28-84 Align the Boric Acid Transfer Pump 1A for Recirculation per OP/1/A/6150/09, Section 9.0.

RAF / 3-28-84 Align the NV System per OP/1/A/6200/01, Enclosure 16.1 with the following exceptions or conditions:

<u>RAF</u> / <u>3-28-84</u>	1NV294	NV Pumps A&B Disch Flow Cntrl	- Closed
<u>RAF</u> / <u>3-28-84</u>	1NV293	NV Pumps A&B Disch Cntrl Isol	- Closed
<u>RAF</u> / <u>3-28-84</u>	1NV202B	NV Pump A&B Recirc Isol	- Oper.
<u>RAF</u> / <u>3-28-84</u>	1NV203A	NV Pump A&B Recirc Isol	- Open
<u>RAF</u> / <u>3-28-84</u>	1NV252A	NV Pump Suct From FWST	- Closed
<u>RAF</u> / <u>3-28-84</u>	1NV253B	NV Pump Suct From FWST	- Closed
<u>RAF</u> / <u>3-28-84</u>	1NI9A	CCP To C-Leg Disch Isol	- Closed
<u>RAF</u> / <u>3-28-84</u>	1NI10B	CCP To C-Leg Disch Isol	- Closed
<u>RAF</u> / <u>3-28-84</u>	NV Pump 1A		- Running

Component Cooling System (KC)

RAF / 3-28-84 Align the KC System per OP/1/A/6200/05, Section 3.0 for Train A operation with the following conditions or exceptions:

<u>RAF</u> / <u>3-28-84</u>	1KC56A	KC TO ND Hx 1A Sup Isol	- closed OPEN
<u>RAF</u> / <u>3-28-84</u>	1KC81B	KC To ND Hx 1B Sup Isol	- Closed
<u>RAF</u> / <u>3-28-84</u>	KC Pumps 1A1 and 1A2		- Running

Auxiliary Feedwater System (CA)

RAF / 3-28-84 Align the CA System for standby readiness per OP/1/A/6250/02, Section 3.0 with the following exceptions or conditions:

<u>RAF</u> / <u>3-28-84</u>	CA Pump 1A Auto Start	- Beated RESET
<u>RAF</u> / <u>3-28-84</u>	CA Sys Vlv Ctrl Train A & B	- Reset
<u>RAF</u> / <u>3-28-84</u>	Valves 1SA2 and 1SA5	Closed
<u>RAF</u> / <u>3-28-84</u>	VALVES 1CA36A, 1CA48A, 1CA52B AND 1CA64B	CLOSED

CH 46
RAF

CH 46
RAF

CH 42
RAF

CATAWBA NUCLEAR STATION
 D/G 1A B/O AND LOAD REJECTION
 PREOPERATIONAL TEST
 TP/1/A/1350/25A
 ENCLOSURE 13.3

ALIGNMENT OF AFFECTED SYSTEMS

RAF 13-28-84 1CA71 CA Pump 1A Disch To UST
 Dome Throttle - Open

RAF 13-28-84 1CA72 CA Pump 1A Disch To UST
 Dome Throttle - Open

RAF 13-28-84 1CA179 CA Pump 1A Disch To UST Dome Throttle -
 Throttled to 500 ± 50 gpm

RAF 13-28-84 CA Pump 1A - Running

Containment Ventilation System (VV)

RAF 13-28-84 Align the VV System as follows:

- RAF 13-28-84 Place the following switches in AUTO on 1MC-3 AND ENSURE
 FANS ARE OPERATING:
 VV UPR CONT RET FAN 1A
 VV UPR CONT RET FAN 1C
- RAF 13-28-84 Place the following switches on 1MC-3 to ~~OFF~~ MAX AND ENSURE
 FANS ARE OPERATING:
 VV UCVU 1A
 VV UCVU 1C
- RAF 13-28-84 Place the following damper control switches on
 1MC-3 to AUTO:
 Lower Containment Vent Damper 1LCVU-D-1
 Lower Containment Vent Damper 1LCVU-D-3
- RAF 13-28-84 Place the following switches on 1MC-3 in the
 NORM position:
 VV LCVU 1A MAX
 VV LCVU 1C MAX
- RAF 13-28-84 Place the following switches on 1MC-3 in the ~~OFF~~ HIGH
 position AND ENSURE FANS ARE OPERATING:
 VV LCVU 1A
 VV LCVU 1C
- RAF 13-28-84 Place control switch for Pipe Tunnel Bstr Fan 1A
 to ~~OFF~~ HIGH position on 1MC-3 AND ENSURE FAN IS OPERATING.
- RAF 13-28-84 Place the control switch for ^{ENSURE THE} Incore Inst Bstr
 Fan 1A to ~~STOP~~ position on 1MC-3. IS OPERATING.

CHK #3
 RAF

CATAWBA NUCLEAR STATION
D/G 1A B/O AND LOAD REJECTION
PREOPERATIONAL TEST
TP/1/A/1350/25A
ENCLOSURE 13.3

ALIGNMENT OF AFFECTED SYSTEMS

CR#3
1610

RAF 13-28-84 ~~ENSURE THE FOLLOWING FANS ARE OPERATING -~~
~~Place the following switches on 1MC-3 in the OFF~~
~~position:~~

- CRD VENT FAN #1A
- CRD VENT FAN #1C

RAF 13-28-84 Place the control switch for the Incore Inst Rm
AHU 1A to the ~~OFF~~ position on 1MC-3 ~~AND ENSURE FAN~~
~~IS OPERATING.~~ ^{MAX}

Nuclear Service Water System (RN)

RAF 13-28-84 Align the RN System per OP/1/A/6400/06C, Section 3.0 for the
startup of Train A with the following conditions:

RAF 13-28-84 Place the KC Hx Discharge Valve 1RN291 in "Temp
Mode".

RAF 13-28-84 Place the KC Hx Discharge Valve 1RN351 in
"Mini-Flow Mode".

RAF 13-28-84 1RN287A KC Hx 1A Inlet Isol - Open

RAF 13-28-84 1RN347B KC Hx 1B Inlet Isol - Open

RAF 13-28-84 RN Pump 1A - Running

Control Room Ventilation System (VC)

RAF 13-28-84 Align the VC System per OP/1/A/6450/11, Section 3.0 for Train A.

Auxiliary Building Ventilation System (VA)

RAF 13-28-84 ~~ENSURE THE VA SYSTEM FANS LISTED BELOW ARE OPERABLE AND ABILITY TO RECEIVE~~
~~Align the VA System per OP/1/A/6450/03, Section 3.0 with the~~
~~following conditions or exceptions: - A BLACKOUT START SIGNAL~~

RAF 13-28-84 Ensure that modification specified in Step 8.1
has been installed.

RAF 13-28-84 All filtered and unfiltered exhaust and supply
fans are off.

RAF 13-28-84 ASP HVAC Unit 1A and 1B are off.

CR#5
1615

CATAWBA NUCLEAR STATION
 D/G 1A B/O AND LOAD REJECTION
 PREOPERATIONAL TEST
 TP/1/A/1350/25A
 ENCLOSURE 13.3

ALIGNMENT OF AFFECTED SYSTEMS

Boron Recycle System (NB)

CHAS RAS
RAS 13-28-84 Align the Nb System for recirculation of RMWST per
 OP/1/A/6200/12, ~~Section 6.4~~ with the following conditions
 or exceptions: EXC 4.3

RAS 13-28-84 1NB459 RMWST Pmp Disch To Aux
 Eldg Flush Hdr - Closed

RAS 13-28-84 1NB274 RMWST Pmp Disch To PRT - Closed

RAS 13-28-84 1NB279 RMWST Pmp Disch To Fuel Pool - Closed

~~_____ / _____~~ 1NB246 ~~RMWST Inlet~~ ~~Closed~~

RAS 13-28-84 1NB199 RMW Pump Disch To NB Evap - Closed

RAS 13-28-84 1WL915 NB Evap Emer Xover Flush
 Supply - Closed

RAS 13-28-84 1WG211 RMWST To WG Decay Tanks
 Drain Pump - Closed

RAS 13-28-84 1NV230 RMW Pump Disch To NV Pumps - Closed

~~Fire Protection (RF)~~

~~_____ / _____~~ ~~Jockey Pump Motor A in Standby, Jockey Pump Motors B and C Off-~~

CHAS RAS

CATAWBA NUCLEAR STATION
D/G 1A B/O AND LOAD REJECTION
PREOPERATIONAL TEST
TP/1/A/1350/25A
ENCLOSURE 13.4

ELECTRICAL ALIGNMENT

1ETA-4160V Switchgear

<u>Breaker No.</u>	<u>Name</u>	<u>Position</u>	
2	Alt. Feeder B/O 1FTA-1	Oper - Open	<u>RAF/3-28-84</u>
3	Normal Incoming	Oper - Closed	<u>RAF/3-28-84</u>
4	Alternate Incoming	No Bkr in Cubicle	<u>RAF/3-28-84</u>
5	1ETXA Feeder	Oper - Closed	<u>RAF/3-28-84</u>
6	KC Pump 1A1	Oper - Closed	<u>RAF/3-28-84</u>
7	KC Pump 1A2	Oper - Closed	<u>RAF/3-28-84</u>
8	NS Pump 1A	Test - Closed	<u>RAF/3-28-84</u>
9	ND Pump 1A	Test - Closed	<u>RAF/3-28-84</u>
10	1ETXE Feeder	Oper - Closed	<u>RAF/3-28-84</u>
11	NI Pump 1A	Test - Closed	<u>RAF/3-28-84</u>
12	NV Pump 1A	Oper - Closed	<u>RAF/3-28-84</u>
13	CA Pump 1A	Oper - Closed	<u>RAF/3-28-84</u>
14	RN Pump 1A	Oper - Closed	<u>RAF/3-28-84</u>
15	KF Pump 1A	Test - Closed	<u>RAF/3-28-84</u>
16	1ETXC Feeder	Oper - Closed	<u>RAF/3-28-84</u>
17	A/C Compressor A	Oper - Closed	<u>RAF/3-28-84</u>
18	DG1A	Oper - Open	<u>RAF/3-28-84</u>

CATAWBA NUCLEAR STATION
D/G 1A B/O AND LOAD REJECTION
PREOPERATIONAL TEST
TP/1/A/1350/25A
ENCLOSURE 13.4

ELECTRICAL ALIGNMENT

1ELXA - 600V Load Center

<u>Breaker No.</u>	<u>Name</u>	<u>Position</u>	
4B	Normal Incoming	Oper - Closed	<u>RAF 13-28-69</u>
4C	1EMXA Feeder	Oper - Closed	<u>RAF 13-28-69</u>
4D	Not Used		
5A	1EMXC Feeder	Oper - Closed	<u>RAF 13-28-69</u>
5B	1EMXG Feeder	Oper - Closed	<u>RAF 13-28-69</u>
5C	Not Used		
5D	Not Used		
6C	1EMXE Feeder	Oper - Closed	<u>RAF 13-28-69</u>
6D	Not Used		
6B	Alternate Incoming	Oper - Open	<u>RAF 13-28-69</u>

1ELXC - 600V Load Center

<u>Breaker No.</u>	<u>Name</u>	<u>Position</u>	
4B	Normal Incoming	Oper - Closed	<u>RAF 13-28-69</u>
4C	1EMXI Feeder	Oper - Closed	<u>RAF 13-28-69</u>
4D	Not Used		
5C	1EMXK Feeder	Oper - Closed	<u>RAF 13-28-69</u>
5D	Not Used		
5B	Alt. Incoming	Oper - Open	<u>RAF 13-28-69</u>

CATAWBA NUCLEAR STATION
D/G 1A B/O AND LOAD REJECTION
PREOPERATIONAL TEST
TP/1/A/1350/25A
ENCLOSURE 13.4

ELECTRICAL ALIGNMENT

600V - Essential and Blackout Motor Control Centers

NOTE: The maximum number of breakers possible on the following 600V MCC are to be closed. Incoming breaker should be closed and MCC energized.

<u>MCC Number</u>	
1EMXA	<u>RAF</u> / <u>3-28-84</u>
1EMXC	<u>RAF</u> / <u>3-28-84</u>
1EMXE	<u>RAF</u> / <u>3-28-84</u>
1EMXG	<u>RAF</u> / <u>3-28-84</u>
1EMXJ	<u>RAF</u> / <u>3-28-84</u>
1EMXK	<u>RAF</u> / <u>3-28-84</u>
1EMXO	<u>RAF</u> / <u>3-28-84</u>
1EMXQ	<u>RAF</u> / <u>3-28-84</u>
1EMXS	<u>RAF</u> / <u>3-28-84</u>
1MXO	<u>RAF</u> / <u>3-28-84</u>
1MXQ	<u>RAF</u> / <u>3-28-84</u>
1MXW	<u>RAF</u> / <u>3-28-84</u>

120 VAC/125 VDC Vital Power

NOTE: The maximum number of circuit breakers possible on the following 120 VAC/125 VDC essential, vital and blackout instrument and control power panelboards and distribution centers are to be closed. Panelboards and distribution controls should be energized.

Power Panelboard
No.

1EKPE	<u>RAF</u> / <u>3-28-84</u>
1EKPG	<u>RAF</u> / <u>3-28-84</u>

CATAWBA NUCLEAR STATION
D/G 1A B/O AND LOAD REJECTION
PREOPERATIONAL TEST
TP/1/A/1350/25A
ENCLOSURE 13.4

ELECTRICAL ALIGNMENT

Power Panelboard
No.

1EKPI	<u>RAF 13-28-84</u>
1EKPY	<u>RAF 13-28-84</u>
1EDA	<u>RAF 13-28-84</u>
1EDC	<u>RAF 13-28-84</u>
1DGDA	<u>RAF 13-28-84</u>
1ERPA	<u>RAF 13-28-84</u>
1ERPC	<u>RAF 13-28-84</u>
1CDA	<u>RAF 13-28-84</u>
1KPW	<u>RAF 13-28-84</u>

Unit 2 Breakers

2ETA Breaker No. 14 Test-Open RAF 13-28-84

1FTA - 4160V Switchgear

<u>Breaker No.</u>	<u>Name</u>	<u>Position</u>
1GTA1	Swgr 1FTA Norm Inc Bkr	Oper - Closed <u>RAF 13-28-84</u>
1FTA1	Swgr 1FTA Alt Inc Bkr	Oper - Open <u>RAF 13-28-84</u>
1FTA2	Spare	
1FTA3	XFMR 1LXI Fdr Bkr	Oper - Closed <u>RAF 13-28-84</u>

CATAWBA NUCLEAR STATION
D/G 1A B/O AND LOAD REJECTION
PREOPERATIONAL TEST
TP/1/A/1350/25A
ENCLOSURE 13.4

ELECTRICAL ALIGNMENT

1LXI - 600V Load Center

<u>Breaker No.</u>	<u>Name</u>	<u>Position</u>	
4B	Inc Bkr	Oper - Closed	<u>RAF / 3-28-84</u>
4C	MCC 1MXO Fdr Bkr	Oper - Closed - Auto	<u>RAF / 3-28-84</u>
5A	VI Comp A	Oper - In Base	<u>RAF / 3-28-84</u>
5B	MCC 1MXQ Fdr Bkr	Oper - Closed - Auto	<u>RAF / 3-28-84</u>
5C	MCC 1MXW Fdr Bkr	Oper - Closed - Auto	<u>RAF / 3-28-84</u>
5D	1CCA Fdr Bkr	Oper - Closed	<u>RAF / 3-28-84</u>
6A	Spare		
6B	Spare		
6C	PZR Htr Pwr Pnl 1A	Open	<u>RAF / 3-28-84</u>
6D	Spare		

CATAWBA NUCLEAR STATION
D/G 1A B/O AND LOAD REJECTION
PREOPERATIONAL TEST
TP/1/A/1350/25A
ENCLOSURE 13.5

EQUIPMENT OPERATION

Load Group 1

1ELXA Compt #4B - Closed

RAS / 3-25-84

1ELXC Compt #4B - Closed

RAS / 3-28-84

Boric Acid Transfer Pump 1A - ON

RAS / 3-28-84

Aux Bldg Pump Room Heater-Demister - ON ✓

ASB / 3/28/84

CR#3
RAS

Aux Bldg Filtered Exhaust Fan^{1A} - ON

ASB / 3/28/84

Switchgear Room Air Handling Units

1SGR-AHU-1 - ON

ASB / 3/28/84

7-1105-RAS

2XSGR-AHU-21 - ON

ASB / 3/28/84

1SGR-AHU-3 - ON

ASB / 3/28/84

7-1105-RAS

2XSGR-AHU-23 - ON

ASB / 3/28/84

VF Filter Train Moisture Eliminator Heater - ON ✓

ASB / 3/28/84

VF Filter Train Exhaust Fan 1A1 and 1A2 - ON

ASB / 3/28/84

Aux Shutdown Panel A/C Unit 1A - ON

RAS / 3-28-84

CR#9
RAS

RN Pump Structure Vent Fan 1A - ON (Verify activation in 12.2)
(ENSURE 2EMX Q-FORCE FAN TO V2 FAN 2A IS OPEN)

RAS / 3-31-84

D/G 1A Bldg Vent Fan Motors 1A1, 1A2 - ON

RAS / 3/28/84

Control Room Air Handling Unit A - ON

ASB / 3/28/84

Control Room Area Filter Train Pressure Fan A - ON

ASB / 3/28/84

Control Room Area Moisture Separator Heater A - ON ✓

ASB / 3/28/84

Valves ICA3EA, ICA4EA, ICA52B and ICA64B - OPEN

RAS / 3-28-84

Load Group 2

Centrifugal Charging Pump 1A - ON

ASB / 3/28/84

CR#2
RAS

CATAWBA NUCLEAR STATION
D/G 1A B/O AND LOAD REJECTION
PREOPERATIONAL TEST
TP/1/A/1350/25A
ENCLOSURE 13.5

EQUIPMENT OPERATION

Load Group 11

Control Room Area Air Handling Unit A - ON

RAS 13-28-84

Control Room Chilled Water Pump A - ON

RAS 13-28-84

Control Room Chiller Compress Oil Pump A - ON

RAS 13-28-84

Battery Room Exhaust Fan - ON

RAS 13-28-84

Load Group 12

Control Room Area Chiller A - ON

RAS 13-28-84

Load Group 13

Instrument Air Compressor A - ON

RAS 13-28-84

Instrument Air Dryer A - DEPRESS ON

RAS 13-28-84

~~Instrument Air Dryer C - DEPRESS ON~~

Battery Charger ICCA - CLOSE FEEDER 1LXI COMPT 5D

RAS 13-28-84

~~Aux Building Filter Room Exhaust Fan A - DEPRESS ON PLACE IN~~

~~RAS 13-28-84~~

Aux Building Unfiltered Exhaust Fan 1A - DEPRESS ON

RAS 13-31-84

Aux Building Supply Unit 1A - DEPRESS ON PLACE IN AUTO AND

RAS 13-31-84

Fuel Pool Cooling Pump 1A - DEPRESS ON

RAS 13-28-84

CH 11 RAS
CH 10 RAS

TPD-RAS
~~(VERIFY POSITION IN 12.2)~~ ~~AUTO AND VERIFY ON~~
~~(VERIFY POSITION IN 12.2)~~ ~~VERIFY ON~~

TRITON 1350/25A
ENCLOSURE 13.6

DIGITAL DURING COMMITTED LOAD SOURCE CONTROL

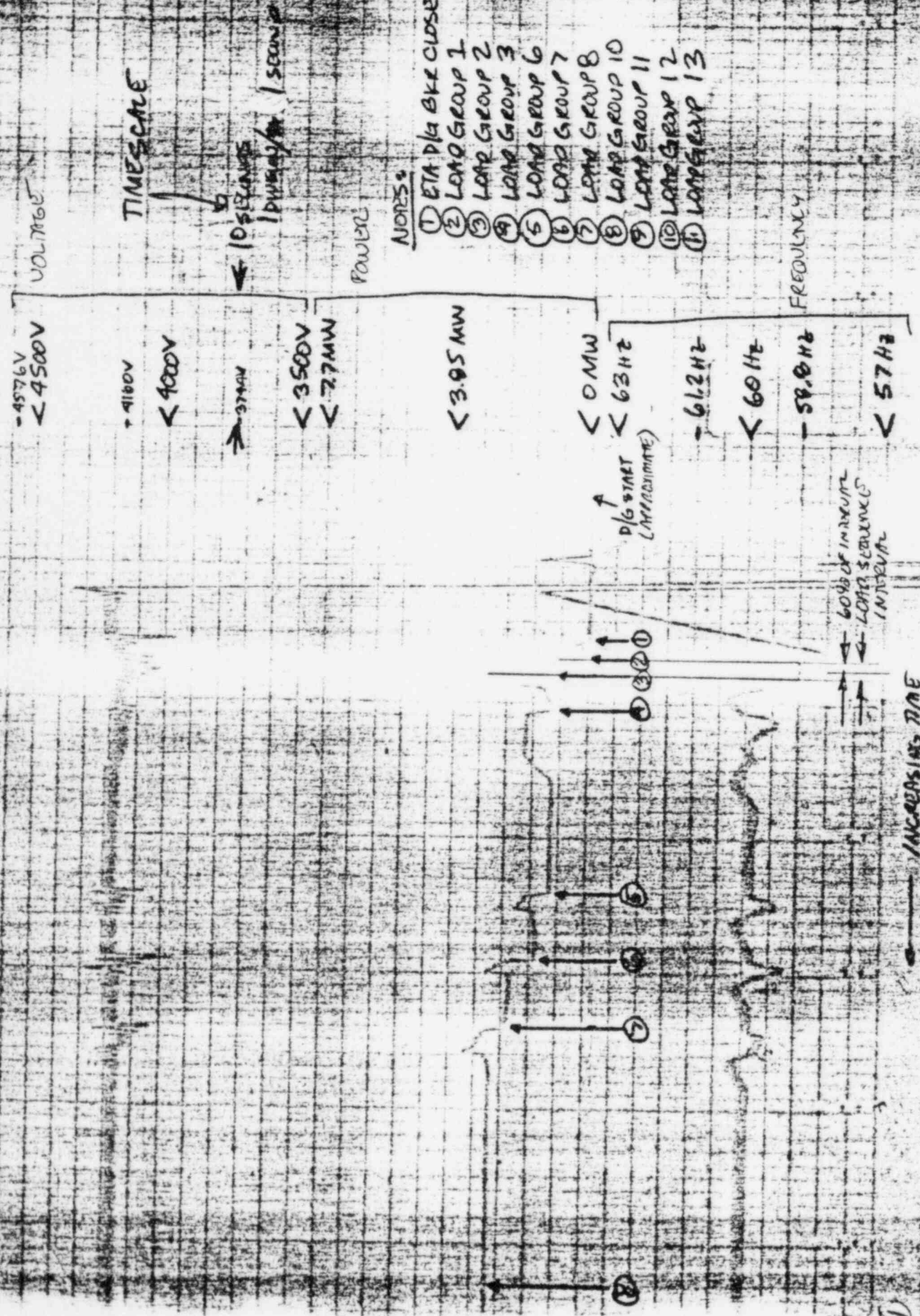
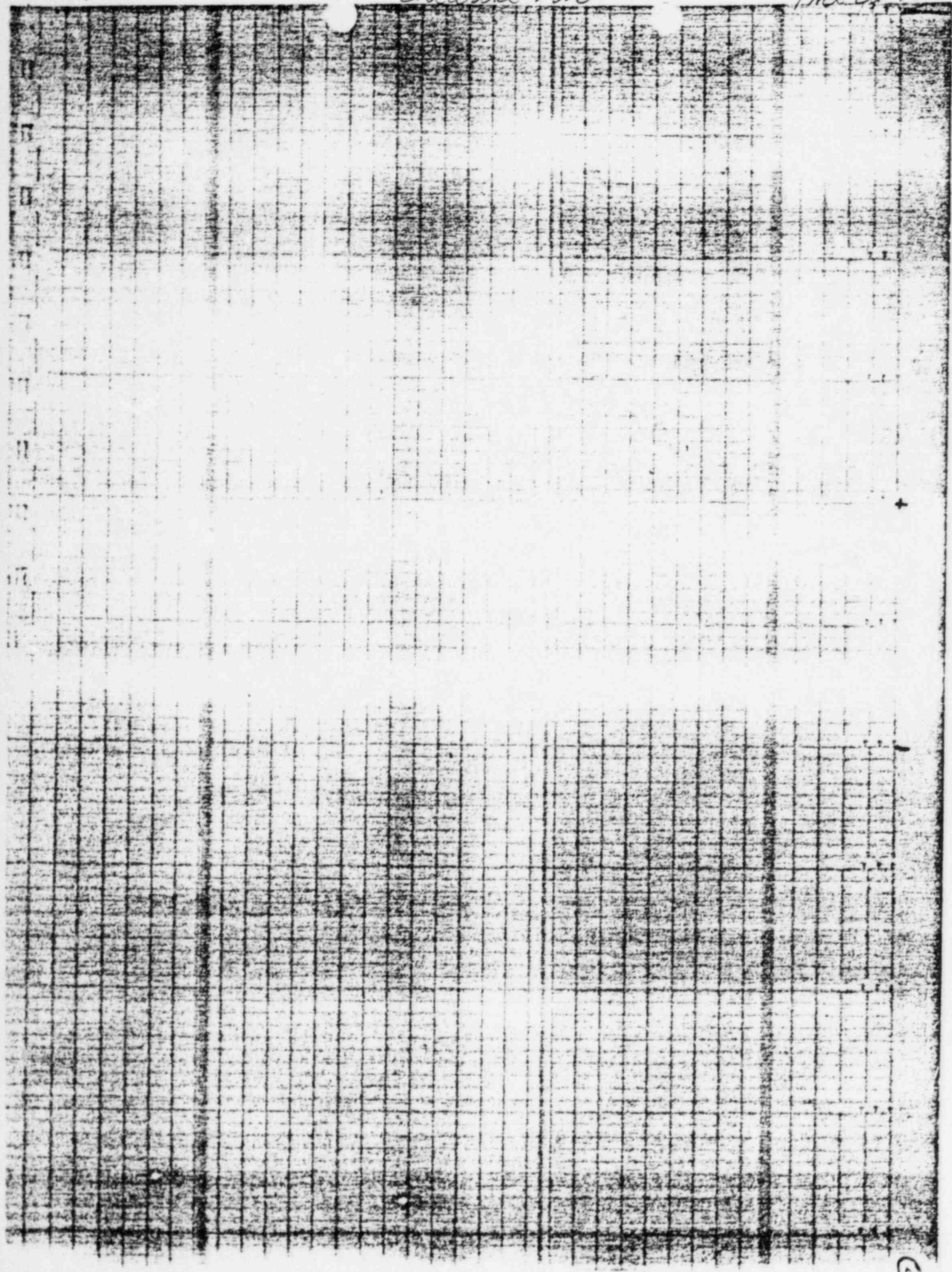


TABLE 1350/25A
ENCLOSURE 13.6

PAGE 2 of 10



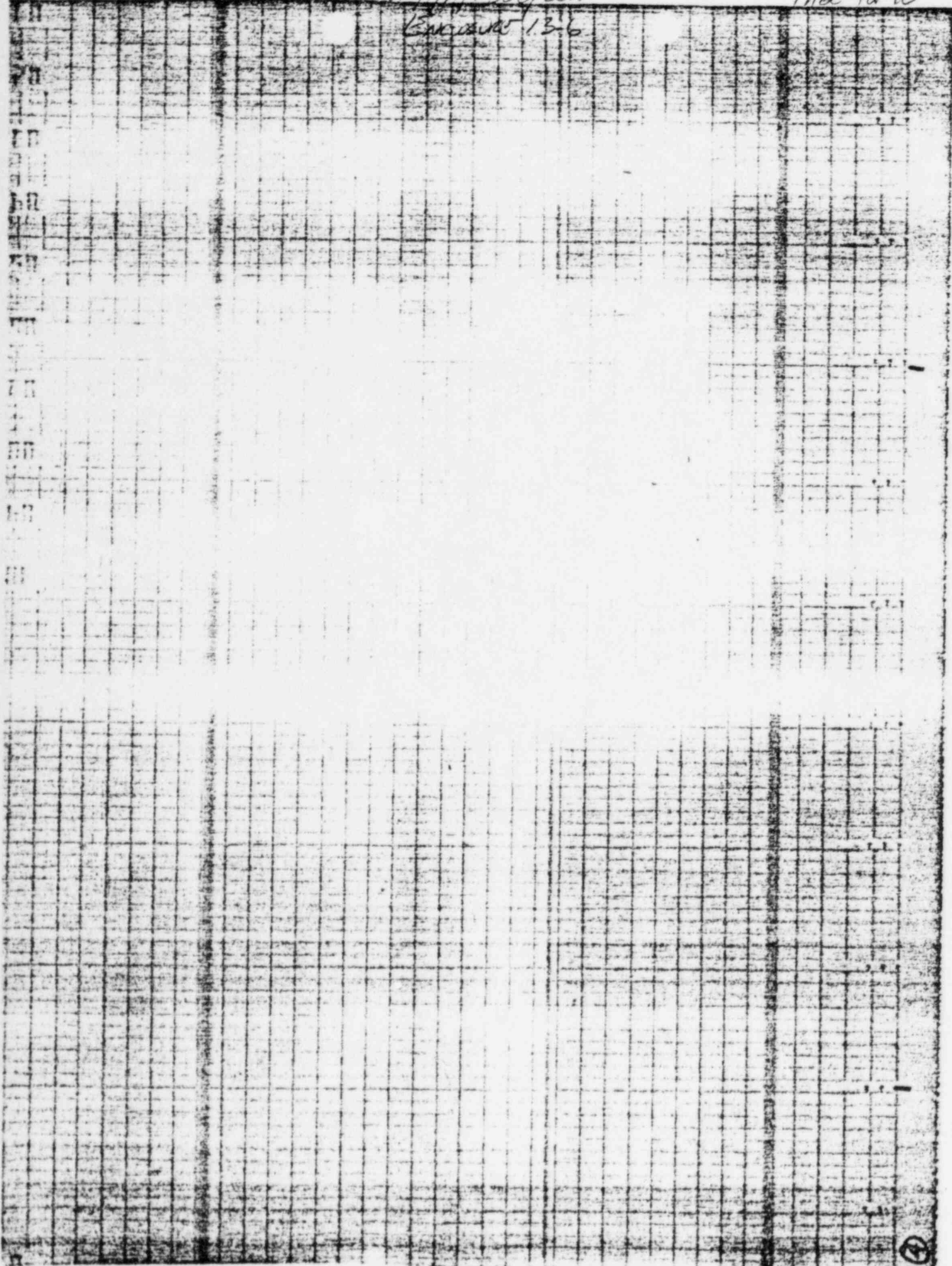
TR/11A/1350/25A

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Enclosure 13 b

TR/1/A/1350/25A
ENCLOSURE 136

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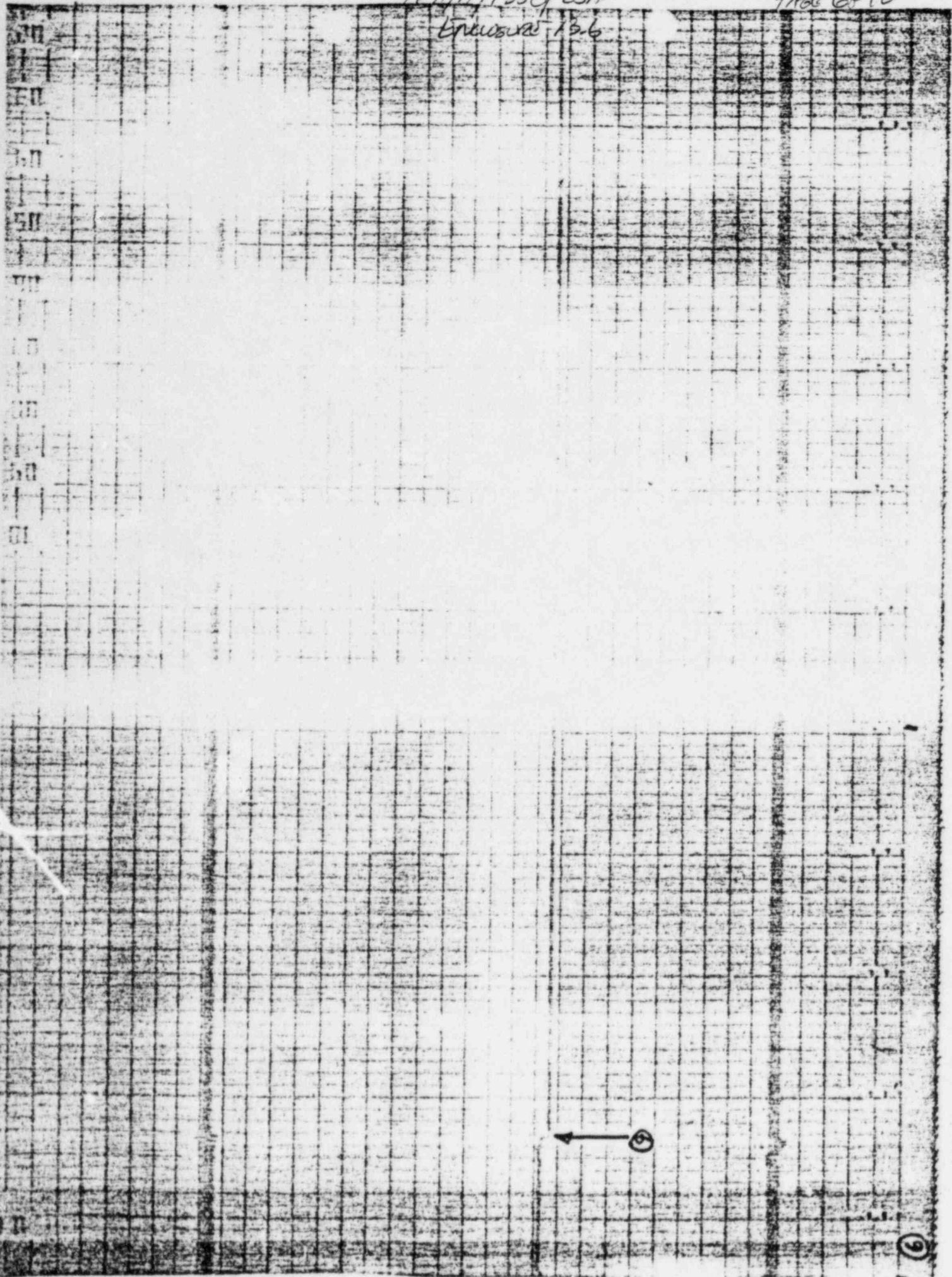
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ENCLOSURE 13.6

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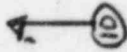
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ENCLOSURE 13.6



TP/1/A/1350/25A
ENCLOSURE 13.6

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T.P. 1/1/1350/25A
Enclosure 136

Proc 8 of 10

TP/1/A/1350/25A
ENCLOSURE 136

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THOSE ARE NOT ANY LANDS ON AIRAN LONG LEASE NINE PER
BLACK HOLEMAN

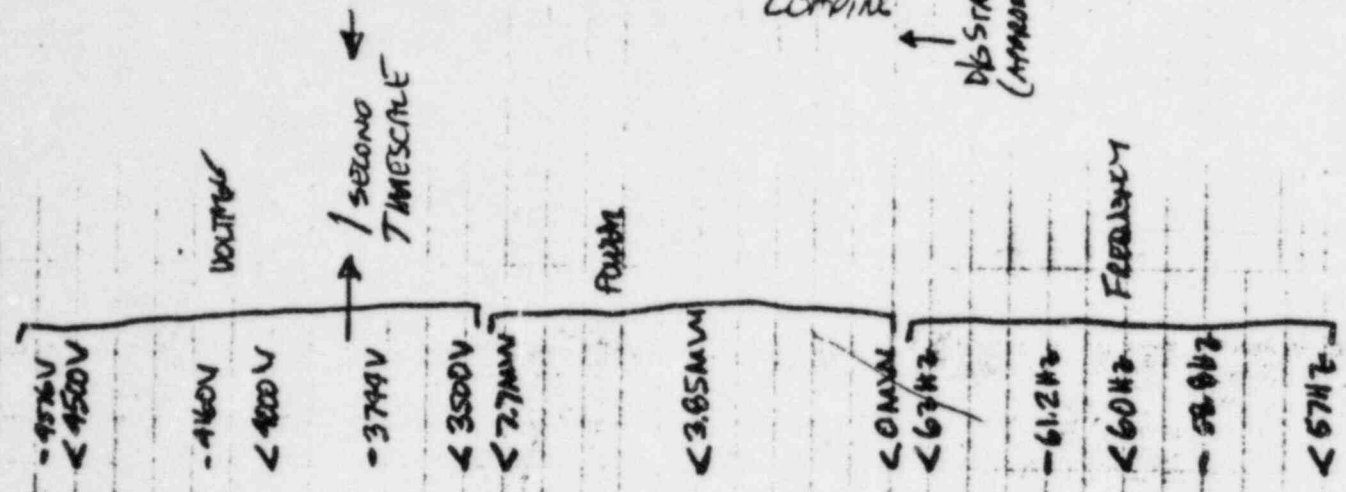
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TP/1/A/H350/25A

ENCLOSURE 13.7

D/G PARAMETERS DURING ACCUMULATED SEQUENCE LOADING

D/G START (APPROXIMATE)



Notes:

- ① ETA D/G OFF CLOSED
- ② LOAD GROUP 1
- ③ LOAD GROUP 2
- ④ LOAD GROUP 3
- ⑤ LOAD GROUP 6
- ⑥ LOAD GROUP 7
- ⑦ LOAD GROUP 8
- ⑧ LOAD GROUP 10
- ⑨ LOAD GROUP 11
- ⑩ LOAD GROUP 12
- ⑪ LOAD GROUP 13

1 SECONDS PER DIVISION

-4576V

-4160V

-3744V

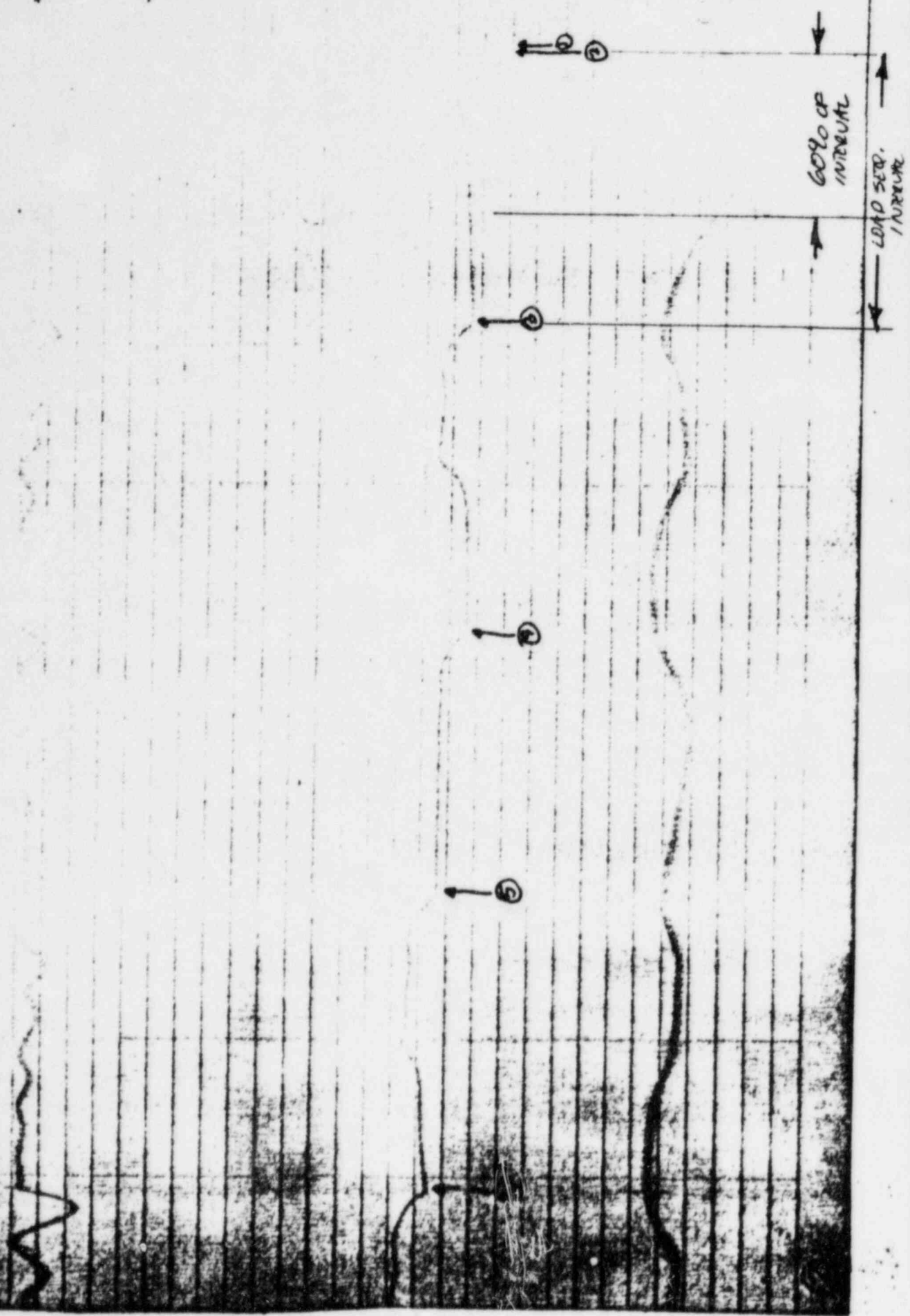
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ENUSURE 13.7

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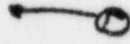
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11/11/11 52.5

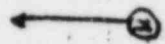
ENCLOSURE 13.7

1766 100



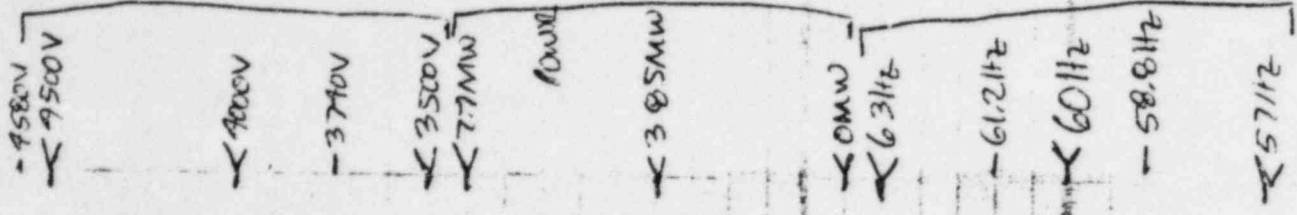
TF 11/11/35/25A
ENCLOSURE 137

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→ 50000 / ←

VALUES



TR/1/M/1350/25A
 ENCLOSURE 13.8
 D/G PARAMETERS DURING 834KW LOAD ROLLIN

Page 1 of 1

FEBRUARY

INCLOSURE 13.8

TR/A/1350/25A
ENR 13/29 1319

D/G MEMBERS DURING FULL LOAD (2 2075kW) ROTARY

Page 1 of 1

← 1005V

← 1000V

← 1005V

← 1000V

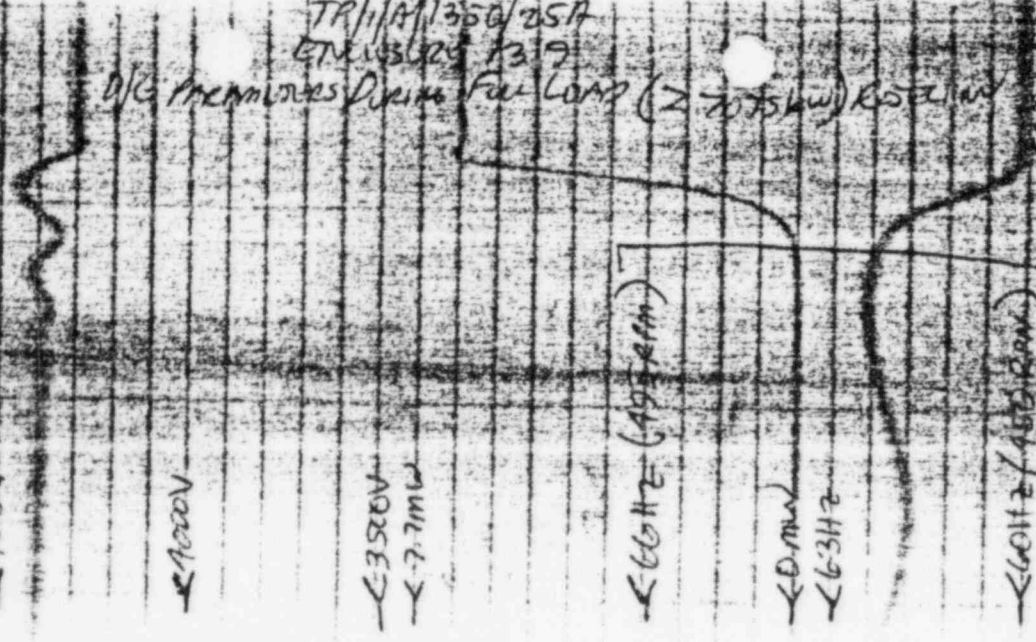
← 661Hz (49.99m)

← 0.1mV

← 6.3Hz

← 661Hz (49.99m)

← 1125V



CATAWBA NUCLEAR STATION
D/G 1A B/O AND LOAD REJECTION
PREOPERATIONAL TEST
TP/1/A/1350/25A
ENCLOSURE 13.10

EVENT RECORDER ACTUATION TIMES & D/G LOAD VALUES

<u>Step</u>	<u>Event Recorder Point</u>	<u>Actuation Time</u>
12.1.26	1ER282	<u>152641 387</u>
	1ER284	<u>152651 202</u>

Time Difference Between 1ER282 & 1ER284 9.815 RAS
10.815 Seconds

Data Recorded By RON JONES
Date 3-28-84
Calculation Performed By RON JONES
Date 3-28-84

<u>Step</u>	<u>Parameter</u>	<u>Value</u>	<u>Initial/Date</u>
12.1.20.2	D/G Load (A0574) (Auto-Connected)	<u>3.13</u> MW	<u>RAJ 13-28-84</u>
12.4.2	D/G Load (A0574) (Partial Load Rejection)	<u>0.87</u> MW	<u>RAJ 13-30-84</u>
12.5.2	D/G Load (A0574) (Full Load Rejection)	<u>7.09</u> MW	<u>RAJ 13-30-84</u>
<u>CRK10</u> <u>RAJ</u> 12.2.6.2	D/G Load (A0574) (Auto-Connected)	<u>3.32</u> MW	<u>RAJ 13-31-84</u>

DUKE POWER COMPANY

P.O. BOX 33189
CHARLOTTE, N.C. 28242

HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

TELEPHONE
(704) 373-4531

June 5, 1984

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Ms. E. G. Adensam, Chief
Licensing Branch No. 4

Re: Catawba Nuclear Station
Docket Nos. 50-413 and 50-414

Dear Mr. Denton:

My letter of April 18, 1984 provided a response to Catawba SER Confirmatory Item 37, Load Sequencer Accelerated Sequence. Attached for use by the Staff is a copy of TP/1/A/1350/25A - D/F 1A Blackout and Load Rejection Test.

Very truly yours,

H. B. Tucker
Hal B. Tucker

ROS/php

Attachment

cc: Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

NRC Resident Inspector
Catawba Nuclear Station

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Boo!