

TIME/DATE _____

PSS REVIEW _____

Dept. Head AZB
Plt. Mgr. ELW
PORC AK
Mgr. of Ops. WOF

Proc. No. 1-22-6
Class. A
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1-22-6 BACKFEEDING BUSES 3, 4, 5, & 6 FROM THE 345 KV SWITCHYARD
AND DE-ENERGIZING X-14

DISCUSSION

The purpose of this procedure is to provide station service power to the plant equipment during a shutdown and remove X-14 transformer from service, to perform maintenance on it, and not utilize the X-16 tertiary winding.

Both RHR Trains may be required, one in service and one operable depending on plant status. (Refer Tech. Specs. 3.8.) To accomplish this it will be necessary to backfeed from the 345 KV lines through X-1A & X-1B and through X-24 thus provide the capability to energize Buses 3, 4, 5, and 6.

- R To prevent personnel injury and motorizing the generator, the links between X-1A and X-1B and the main generator will be removed prior to performing any switching orders. Transformer X-16 will remain in service supplying Buses 1 & 2, if required. It may also provide power via the 5R breaker if needed.

1.0 OBJECTIVE

To Supply 4160V Buses 3, 4, 5, and 6 with power supplied from the 345 KV lines.

2.0 PRECAUTIONS

- 2.1 Links between the main generator and transformers X-1A & X-1B have to be removed in accordance with maintenance procedure. (MY-MAINT.).
- 2.2 Transformer X-16 will remain in service supplying power to Buses 1 & 2 (6900V), if required.
- 2.3 ACB 5R shall remain in pull to lock (4160V supply to Bus 5 from X-16).
- 2.4 If it becomes necessary to X-tie emergency buses 7 and 8, insure that information tags are hung on the control switches of the non operating service water pumps informing operators of the Off Normal condition and warning that operation of more than 1 service water pump on either bus could cause overloading with subsequent loss of bkrs. 5070, 5071 or 6080, 6081.

NOTE: Buses 7 and 8 cannot be cross connected whenever the reactor is in a power operating condition (T.S. 3-6).

NOTE: Trip amps on 5070 and 6080 is 640A, 6081 and 5071 is 1600A, and 7T8 is 1200A.

3.0 INITIAL CONDITIONS

- 3.1 The Augusta dispatcher has been notified of the intended work. _____
- 3.2 All work on transformers X-1A, X-1B, X-24, and X-26 has been completed. _____
CMP _____
MY Maint. _____
- 3.3 Transformer Auxiliaries for X-1A, X-1B, X-24, and X-26 have been verified to be energized and operable. _____
CMP _____
MY Maint. _____
- 3.4 The links between the main generator and transformers X-1A & X-1B have been removed. _____
MY Elect. Maint. _____
MY PE Dept. _____
- 3.5 Ensure main generator is grounded. _____
MY Elect. Maint. _____
MY PE Dept. _____
- 3.6 ACB's 3U & 4U are operable and clear of white tags. _____
- 3.7 ACB's 1U and 2U have been racked out and white tagged to the P.S.S. _____

4.0 PROCEDURE

- 4.1 Rack in ACB - 3U and leave its associated switch in pull to lock. _____
- 4.2 Rack in ACB - 4U and leave its associated switch in pull to lock. _____
- 4.2.1 Have CMP personnel change relaying in relay house. (CMP) _____
- 4.2.2 Have Maintenance personnel disable relaying as follows: _____

Maine Yankee Responsibilities

- 1. Block the primary and backup anti-motoring, part of the EHC system and jumper the snyc. check relay.
- 2. The primary anti-motoring is shown on ESK-8AA and 8AB. It is disabled by lifting wire 5 on target relay 33 x (QAC). This is located in the "A" Section of the MCB and blocks the logic derived from KG1/375, KG1, T1H, stop valves and intercept valves. The EHC is blocked by lifting wire 5 of HGA relay 95P.
- 3. The backup anti-motoring is shown on ESK-8AC and 8AD. It is disabled by lifting wire 13 on HFA relay 95 B.U. This relay also blocks part of E.H.C. and is located in the electric board.

4. Sync. check relay 25/27 KGI has to have terminals 1 and 2 jumpered during breaker closure only. After breaker KGI has been closed, the jumper may be removed.

NOTE: KGI is preferred breaker to energize transformer 1A and 1B. Refer to CMP Dwg. 637-66-5, sheet 48 for KGI elementary.

Central Maine Power Responsibilities

1. Change plant backfeed switch 43RP in the relay house from "normal" to "plant backfeed". In addition, disable "breaker failure initiate" on KGI. After KGI/375 has been closed the "breaker failure initiate" on KGI is to be restored to normal.
- 4.3 Obtain a switching order from the Augusta Dispatcher to accomplish the following in preparation to energize via X-1A & 1B, X-24 & X-26 transformers.

Open KGI.
Open KGI/375.
Open TIHG.
Make TIH operative in yard.
Close TIH from Control Room.

Then close KGI to energize transformer. At this time check with CMP personnel to ensure everything is normal, then proceed.
Close KGI/375.

- 4.4 Place ACB - 3U Synchronizing Switch in the on position. _____
- 4.5 Select unit breaker 3U using the Synchronizing Selector Switch. _____
- 4.6 Take 3U Switch out of Pull to Lock and close. _____
 - 4.6.1 Hold 3U control switch in "closed" position until 3U has "closed". _____
 - 4.6.2 Verify 3R opens automatically. _____
 - 4.6.2.1 If 3R fails to open automatically, open manually. _____
- 4.7 Verify that approx. 4160 volts are being supplied to busses 3 and 5. _____
- 4.8 Place ACB-4U Synchronizing Switch in the on position. _____
- 4.9 Select unit breaker 4U using the Synchronizing breaker selector switch. _____
- 4.10 Take 4U Switch out of Pull to Lock and close. _____

4.10.1 Hold 4U control switch in "closed" position until 3U has "closed". _____

4.10.2 Verify 4R opens automatically. _____

4.10.2.1 If 4R fails to open automatically, open manually. _____

4.11 Verify that approx. 4160 volts are being supplied to busses 4 and 6. _____

4.12 Rack down and white tag ACB-3R. Order # _____

4.13 Rack down and white tag ACB-4R. Order # _____

4.14 Obtain a switching order from the Augusta dispatcher to de-energize transformer X-14. _____

X-14 De-energized _____

4.15 Notify the MY Maintenance Department that X-14 is de-energized and work may commence. _____

10.0 FINAL CONDITIONS

10.1 Busses 3, 4, 5, and 6 are being energized from the 345 KV yard back through X-1A and X-1B and X-24 and their associated ACB's.

10.2 Transformer X-14 is de-energized.

DATE/TIME _____

RX OPERATOR _____

SOS REVIEW _____

CMP REVIEW _____

5.0 RESTORATION TO NORMAL POWER FROM X-14 VIA 3R & 4R

5.1 Verify all work has been completed on X-14. _____

5.1.1 CMP has completed work on the X-14 transformer. _____

5.1.2 M.Y. Maint. has completed work on X-14. _____

5.1.3 CMP relay personnel are available for relay adjustments as required in 345KV yard. _____

5.2 Obtain a switching order form the Augusta Dispatcher & energize X-14 via the 115KV yard. _____

Order # _____

5.3 Energize X-14. _____

5.3.1 Have MY Electrical Maintenance check out energized X-14 for normal condition. _____

5.4 Using the sync. selector switch, select the 3R breaker. _____

5.4.1 Close the 3R breaker & hold in "closed" position until 3R has closed. _____

5.4.2 Verify 3U opens automatically. _____

5.4.2.1 If 3U fails to open automatically, open manually. _____

5.4.3 Place 3U in PTL. _____

5.5 Using the sync. selector switch, select the 4R breaker. _____

5.5.1 Close the 4R breaker and hold in "closed" position until 4R closes. _____

5.5.2 Verify 4U opens automatically. _____

5.5.2.1 If 4U fails to open automatically, open manually. _____

5.5.3 Place the 4U in PTL. _____

5.5.3.1 The 4160V busses 3, 4, 5, 6 are now being supplied from the X-14 transformer via the 3R & 4R breakers. _____

5.6 Check out operation of X-14 to be normal. _____

5.7 Obtain a switching order from the Augusta Dispatcher to de-energize the X-24 transformer. _____

5.8 When the 345KV system is back to its normal mode i.e., T1H open, T1HG closed & the 345KV ring bus closed by dispatchers order then;

5.8.1 Notify M.Y. Maint. to reconnect the links from X-1A & 1B to the main generator. _____

5.8.2 Return lifted leads to normal. (Step 4.2.2) _____

5.8.3 Return 43RP in relay house to "Normal" from backfeed. _____

10.0 FINAL CONDITIONS

10.1 Work has ben completed on X-14 and it has been returned to service.

10.2 The 345KV system and the 115KV system, the in-house electrical bus distribution system are normalized.

DATE/TIME _____

RX OPERATOR _____

SOS REVIEW _____