

TYPE <u>ROUTINE INSPECTION</u>	STATION <u>HAWKESBURY MS</u>	ISSUE DATE _____
SUBSTATION ADDRESS <u>TESSIER ST</u>	COMPLETED DATE <u>4/17/2024</u>	
FEEDER/NOMENCLATURE <u>TESSIER</u>	AMBIENT TEMPERATURE <u>12</u> °C	TESTED BY <u>KEVIN SOMERS</u>
WORK ORDER # <u>680819</u>	TEST STATUS _____	TESTED BY <u>DAVE LEFEBVRE</u>

**PROCEDURE**

- FOLLOW WORK PROCEDURES FOR THE LISTED INDIVIDUAL INSPECTIONS AND CHECK APPROPRIATE BOX
- CHECK ALL ITEMS SPECIFIC TO THIS STATION AND COMPLETE ALL PAGES.
- CALL INTO SYSTEM ANY TARGETS OR FLAGGING AND RESET UPON DEPARTURE

CONDITION	INSPECTION ITEM	REMARKS
<input type="checkbox"/> G <input checked="" type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	YARD (fence, gate, grounds, stone...)	FENCE GROUNDING HAS BEEN CUT IN SPOTS, NEEDS REPAIR.
<input type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input checked="" type="checkbox"/> N/A	OVERALL BUILDING CONDITION	
<input checked="" type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	PROTECTION RELAY PANELS	
<input type="checkbox"/> G <input checked="" type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	OUTDOOR STRUCTURES	METAL PLATE @ G43T1-L LOOSE AND POSSIBLY BRIDGING CENTRE PHASE INSULATOR.
<input checked="" type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	STATION SERVICE TRANSFORMERS	
<input type="checkbox"/> G <input checked="" type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	SWITCHGEAR / RECLOSERS	WASP NEST IN 43F1 RECLOSER LINKAGE HOOD.
<input checked="" type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	STATION IDENTIFICATION SIGN	
<input checked="" type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	PPE SIGN	
<input checked="" type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	SITE SAFETY NOTICE SIGN	
<input type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input checked="" type="checkbox"/> N/A	CONTAINMENT PIT	
<input type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input checked="" type="checkbox"/> N/A	SUMP PIT / OIL WATER SEPARATOR	<input type="checkbox"/> CLEAN WATER <input type="checkbox"/> OIL SHEEN <input type="checkbox"/> SCADA STATUS OK
<input type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input checked="" type="checkbox"/> N/A	SMOKE DETECTOR VERIFICATION	
<input checked="" type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	DGA SERVICE LIGHTS	
<input type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input checked="" type="checkbox"/> N/A	VERIFY ATS OPERATION	
<input type="checkbox"/> YES <input type="checkbox"/> NO	VERIFY PUBLISHED DRAWINGS PRESENT	?
<input type="checkbox"/> YES <input type="checkbox"/> NO	VERIFY UP TO DATE SINGLE LINE PRESENT	?
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	SPARE BUSHINGS ON SITE	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	UWPC LOCKS AVAILABLE	
<input type="checkbox"/> YES <input type="checkbox"/> NO	VERIFY IF ANY RELAY FLAGS PRESENT	
<input type="checkbox"/> YES <input type="checkbox"/> NO	VERIFY ALL BREAKER RACKING HANDLES PRESENT	
<input type="checkbox"/> YES <input type="checkbox"/> NO	VERIFY BREAKER RACKING MOTORS PRESENT	
<input type="checkbox"/> YES <input type="checkbox"/> NO		

- G = ITEMS FOUND IN SATISFACTORY CONDITION  
P = ITEMS FOUND IN POOR CONDITION AND REQUIRING FUTURE CORRECTIVE ACTION  
C = ITEMS REPAIRED OR CORRECTED AND LEFT IN SATISFACTORY CONDITION  
I = ITEMS REQUIRING IMMEDIATE CORRECTIVE ACTIONS

COMMENTS: \_\_\_\_\_  
DEFICIENCIES: \_\_\_\_\_

**ALARMS & GREEN TAGS (SYSTEM OFFICE CHECK)**

ALARM OR GREEN TAG	AS FOUND	AS LEFT	NOTES

<b>AUTOMATIC TRANSFER SWITCH</b>
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OPERATION	PASS / FAIL	NOTES
VERIFY OPERATION BY OPENING NORMAL FEED	PASS	
CONFIRM STATUS WITH SYSTEM OFFICE	PASS	

<b>STATION BATTERIES AND CHARGER</b>
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<b>NUMBER OF CELLS</b>	
<b>SPECIFIED VOLTAGE PER CELL</b>	

DC SYSTEM	PASS / FAIL	NOTES
VERIFY NO ALARMS ON CHARGER	PASS	
VERIFY GROUNDING CONTINUITY	PASS	
VERIFY CORROSION	PASS	
VERIFY WATER LEVELS (top-up if required)	PASS	

DC VOLTAGE	Volts	ACCEPTABLE RANGE
CHARGER DISPLAY VOLTAGE		125V to 130V
MEASURED BANK VOLTAGE (disconnect charger)		> 90% OF (SPECIFIED CELL VOLTAGE x NUMBER OF CELLS)

<b>SUMP PUMP</b>
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Operation	PASS / FAIL
RUN FOR 1 MIN TO CONFIRM OPERATION	PASS

## TRANSFORMER

MANUFACTURER FERRANTI-PACKARD (T1)  
 SERIAL NUMBER 0308401001  
 YEAR 1985  
 TYPE SEALED  
 IMPEDANCE 6.96 %  
 TEMPERATURE RISE 65 °C  
 HV BIL 250  
 LV BIL 95

KVA 10,000 / 13,300 / 16,700  
 PRIMARY VOLTAGE 44,000 / DELTA  
 SECONDARY VOLTAGE 12,470 / 7,200 WYE  
 OIL VOLUME \_\_\_\_\_ L  
 TOTAL WEIGHT 31397 KG  
 # OF FANS 6  
 TAP CHANGER INTERNAL

VISUAL INSPECTION	CONDITION
BUSHINGS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
MAIN TANK	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
COOLING	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
OIL TANK	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
FOUNDATION	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
GROUNDING	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
GASKET & SEALS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
CONNECTORS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
OIL LEAKS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
OIL LEVEL	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
OVERALL	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E

### GAUGES

NOTE: TRANSFORMER OIL LEVEL = 50% @ 25C

WINDING TEMPERATURE	MIN		Max	73	AS FOUND	31
OIL TEMPERATURE	MIN		Max	26	AS FOUND	19
TRANSFORMER OIL LEVEL	0%		100%		AS FOUND	52
BUSHING OIL LEVEL	0%		100%		AS FOUND	
TRANSFORMER PRESSURE			<input type="checkbox"/> KPA <input checked="" type="checkbox"/> PSI		AS FOUND	1
GAS RELAY					AS FOUND	

### TAP CHANGER

MANUFACTURER \_\_\_\_\_ MODEL \_\_\_\_\_  
 SERIAL NO. \_\_\_\_\_ YEAR \_\_\_\_\_ GALLONS \_\_\_\_\_

TAP CHANGER OIL TEMP	MIN		Max		AS FOUND	
TAP CHANGER OIL LEVEL	MIN		Max		AS FOUND	
TAP POSITION	MIN		Max		AS FOUND	
COUNTER					AS FOUND	
DIVERTOR OIL LEVEL	MIN		Max		AS FOUND	
HEATER CONDITION		<input type="checkbox"/> G	<input type="checkbox"/> P	<input type="checkbox"/> C	<input type="checkbox"/> I	
RELIEF VENT		<input type="checkbox"/> G	<input type="checkbox"/> P	<input type="checkbox"/> C	<input type="checkbox"/> I	

OIL FILTRATION PUMP PSI:  FILTER TYPE:  FILTER CHANGE DATE:  HOURS:

## TRANSFORMER

MANUFACTURER PIONEER TRANSFORMERS  
 SERIAL NUMBER G16194-1  
 YEAR 2012  
 TYPE SEALED  
 IMPEDANCE 6.91 %  
 TEMPERATURE RISE 65 °C  
 HV BIL \_\_\_\_\_  
 LV BIL \_\_\_\_\_

KVA 10,000 / 13,330 / 16,670  
 PRIMARY VOLTAGE 44,000 / DELTA  
 SECONDARY VOLTAGE 12,470 / 7,200 DELTA  
 OIL VOLUME \_\_\_\_\_ L  
 TOTAL WEIGHT 28880  
 # OF FANS 6  
 TAP CHANGER EXTERNAL

VISUAL INSPECTION	CONDITION
BUSHINGS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
MAIN TANK	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
COOLING	<input type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
OIL TANK	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
FOUNDATION	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
GROUNDING	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
GASKET & SEALS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
CONNECTORS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
OIL LEAKS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
OIL LEVEL	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
OVERALL	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E

### GAUGES

NOTE: TRANSFORMER OIL LEVEL = 50% @ 25C

WINDING TEMPERATURE	MIN		Max	28	AS FOUND	20
OIL TEMPERATURE	MIN		Max	26	AS FOUND	19
TRANSFORMER OIL LEVEL	0%		100%		AS FOUND	33
BUSHING OIL LEVEL	0%		100%		AS FOUND	40
TRANSFORMER PRESSURE			<input type="checkbox"/> KPA <input checked="" type="checkbox"/> PSI		AS FOUND	0
GAS RELAY					AS FOUND	

### TAP CHANGER

MANUFACTURER ABB MODEL UZERT 250/300  
 SERIAL NO. 1ZSC 8714 910 YEAR 2013 GALLONS \_\_\_\_\_

TAP CHANGER OIL TEMP	MIN		Max		AS FOUND	
TAP CHANGER OIL LEVEL	MIN		Max		AS FOUND	33
TAP POSITION	MIN	12	Max	12	AS FOUND	12
COUNTER					AS FOUND	2,586
DIVERTOR OIL LEVEL	MIN		Max		AS FOUND	
HEATER CONDITION		<input checked="" type="checkbox"/> G	<input type="checkbox"/> P	<input type="checkbox"/> C	<input type="checkbox"/> I	
RELIEF VENT		<input checked="" type="checkbox"/> G	<input type="checkbox"/> P	<input type="checkbox"/> C	<input type="checkbox"/> I	

OIL FILTRATION PUMP PSI:  FILTER TYPE:  FILTER CHANGE DATE:  HOURS:

TYPE ROUTINE INSPECTION STATION HAWKESBURY MTS ISSUE DATE \_\_\_\_\_  
 SUBSTATION ADDRESS MAIN ST COMPLETED DATE 4/17/2024  
 FEEDER/NOMENCLATURE HAWKSURRY 115KV AMBIENT TEMPERATURE 10 °C TESTED BY KEVIN SOMERS  
 TESTED BY DAVE LEFEBVRE  
 WORK ORDER # 680819 TEST STATUS \_\_\_\_\_

**PROCEDURE**

- FOLLOW WORK PROCEDURES FOR THE LISTED INDIVIDUAL INSPECTIONS AND CHECK APPROPRIATE BOX
- CHECK ALL ITEMS SPECIFIC TO THIS STATION AND COMPLETE ALL PAGES.
- CALL INTO SYSTEM ANY TARGETS OR FLAGGING AND RESET UPON DEPARTURE

CONDITION	INSPECTION ITEM	REMARKS
<input checked="" type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	YARD (fence, gate, grounds, stone...)	Cut fence grounds have been replaced with aluminum cable.
<input checked="" type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	OVERALL BUILDING CONDITION	E-house bond to grid has been cut and missing.
<input checked="" type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	PROTECTION RELAY PANELS	
<input checked="" type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	OUTDOOR STRUCTURES	
<input checked="" type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	STATION SERVICE TRANSFORMERS	
<input checked="" type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	SWITCHGEAR / RECLOSERS	Recloser head missing bond on all three tanks.
<input checked="" type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	STATION IDENTIFICATION SIGN	
<input checked="" type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	PPE SIGN	
<input checked="" type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	SITE SAFETY NOTICE SIGN	
<input type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input checked="" type="checkbox"/> N/A	CONTAINMENT PIT	
<input type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input checked="" type="checkbox"/> N/A	SUMP PIT / OIL WATER SEPARATOR	<input type="checkbox"/> CLEAN WATER <input type="checkbox"/> OIL SHEEN <input type="checkbox"/> SCADA STATUS OK
<input type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input type="checkbox"/> N/A	SMOKE DETECTOR VERIFICATION	
<input type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input checked="" type="checkbox"/> N/A	DGA SERVICE LIGHTS	
<input type="checkbox"/> G <input type="checkbox"/> P <input type="checkbox"/> C <input type="checkbox"/> I <input checked="" type="checkbox"/> N/A	VERIFY ATS OPERATION	
<input type="checkbox"/> YES <input type="checkbox"/> NO	VERIFY PUBLISHED DRAWINGS PRESENT	?
<input type="checkbox"/> YES <input type="checkbox"/> NO	VERIFY UP TO DATE SINGLE LINE PRESENT	?
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	SPARE BUSHINGS ON SITE	C-can
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	UWPC LOCKS AVAILABLE	
<input type="checkbox"/> YES <input type="checkbox"/> NO	VERIFY IF ANY RELAY FLAGS PRESENT	
<input type="checkbox"/> YES <input type="checkbox"/> NO	VERIFY ALL BREAKER RACKING HANDLES PRESENT	
<input type="checkbox"/> YES <input type="checkbox"/> NO	VERIFY BREAKER RACKING MOTORS PRESENT	
<input type="checkbox"/> YES <input type="checkbox"/> NO		

- G = ITEMS FOUND IN SATISFACTORY CONDITION
- P = ITEMS FOUND IN POOR CONDITION AND REQUIRING FUTURE CORRECTIVE ACTION
- C = ITEMS REPAIRED OR CORRECTED AND LEFT IN SATISFACTORY CONDITION
- I = ITEMS REQUIRING IMMEDIATE CORRECTIVE ACTIONS

**COMMENTS:** prints on site are new equipment only, station could use some organizing for up tp date prints and single line. E house floor crowded with spare parts that could be held in C-can. T1 WINDING TEMP GAUGE NOT RESETTING. T2 NEEDS NEW SILICA BEADS, OIL LEAK FROM DETC.  
**DEFICIENCIES:**

**ALARMS & GREEN TAGS (SYSTEM OFFICE CHECK)**

ALARM OR GREEN TAG	AS FOUND	AS LEFT	NOTES

<b>AUTOMATIC TRANSFER SWITCH</b>
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OPERATION	PASS / FAIL	NOTES
VERIFY OPERATION BY OPENING NORMAL FEED	PASS	
CONFIRM STATUS WITH SYSTEM OFFICE	PASS	

<b>STATION BATTERIES AND CHARGER</b>
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NUMBER OF CELLS	10
SPECIFIED VOLTAGE PER CELL	13.5

DC SYSTEM	PASS / FAIL	NOTES
VERIFY NO ALARMS ON CHARGER	PASS	
VERIFY GROUNDING CONTINUITY	PASS	
VERIFY CORROSION	PASS	
VERIFY WATER LEVELS (top-up if required)	PASS	

DC VOLTAGE	Volts	ACCEPTABLE RANGE
CHARGER DISPLAY VOLTAGE	135	125V to 130V
MEASURED BANK VOLTAGE (disconnect charger)		> 90% OF (SPECIFIED CELL VOLTAGE x NUMBER OF CELLS)
MEASURED BANK VOLTAGE (disconnect charger)		> 90% OF (SPECIFIED CELL VOLTAGE x NUMBER OF CELLS)

<b>SUMP PUMP</b>
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Operation	PASS / FAIL
RUN FOR 1 MIN TO CONFIRM OPERATION	PASS

## CIRCUIT SWITCHER

NOMENCLATURE \_\_\_\_\_ 55T3-L \_\_\_\_\_  
 MANUFACTURER \_\_\_\_\_ SIEMENS \_\_\_\_\_

CURRENT RATING \_\_\_\_\_ 1200 \_\_\_\_\_ AMPERES  
 VOLTAGE CLASS \_\_\_\_\_ 121 \_\_\_\_\_ kV

VISUAL INSPECTION	CONDITION
SF6 LEAKS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
TANK & MECHANISM BOX	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
BUSHINGS & INSULATORS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
CONTROL MECHANISM	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
FOUNDATION, FRAME, GROUNDING	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E

<input checked="" type="radio"/> PSI <input type="radio"/> KPA	<b>RED</b>	<b>WHITE</b>	<b>BLUE</b>
<b>SF6 GAS PRESSURE</b>	64	64	64

<b>OPERATION COUNTER</b>	78
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HEATING BLANKET OPERATION	N/A
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## CIRCUIT SWITCHER

NOMENCLATURE 55T2-L  
 MANUFACTURER SIEMENS

CURRENT RATING 1200 AMPERES  
 VOLTAGE CLASS 121 kV

VISUAL IMSPECTION	CONDITION
SF6 LEAKS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
TANK & MECHANISM BOX	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
BUSHINGS & INSULATORS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
CONTROL MECHANISM	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
FOUNDATION, FRAME, GROUNDING	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E

HEATING BLANKET OPERATION	N/A
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<input checked="" type="radio"/> PSI <input type="radio"/> KPA	RED	WHITE	BLUE
SF6 GAS PRESSURE	60	60	60

OPERTION COUNTER	21
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## SWITCH

NOMENCLATURE 55T3-LBS

VISUAL IMSPECTION	CONDITION
BUSHINGS & INSULATORS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
FOUNDATION, FRAME, GROUNDING	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
DISCONNECT LIVE PARTS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E

## SWITCH

NOMENCLATURE 55T2-LBS

VISUAL IMSPECTION	CONDITION
BUSHINGS & INSULATORS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
FOUNDATION, FRAME, GROUNDING	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
DISCONNECT LIVE PARTS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E

## TRANSFORMER

MANUFACTURER MOLONEY ELECTRIC  
 SERIAL NUMBER 213081  
 YEAR 1965  
 TYPE CONSERVATOR  
 IMPEDANCE 8.9 %  
 TEMPERATURE RISE \_\_\_\_\_ °C  
 HV BIL 550  
 LV BIL 110

KVA 3,500 / 10,000 / 13,500  
 PRIMARY VOLTAGE 110,000 / DELTA  
 SECONDARY VOLTAGE 12,480 / 7,200 WYE  
 OIL VOLUME \_\_\_\_\_ L  
 TOTAL WEIGHT 94850 LBS  
 # OF FANS 8  
 TAP CHANGER EXTERNAL

VISUAL INSPECTION	CONDITION
BUSHINGS	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
MAIN TANK	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
COOLING	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
OIL TANK	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
FOUNDATION	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
GROUNDING	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
GASKET & SEALS	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
CONNECTORS	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
OIL LEAKS	<input type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
OIL LEVEL	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
OVERALL	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E

### GAUGES

NOTE: TRANSFORMER OIL LEVEL = 50% @ 25C

WINDING TEMPERATURE	MIN		Max		AS FOUND	
OIL TEMPERATURE	MIN		Max	60	AS FOUND	30
TRANSFORMER OIL LEVEL	0%		100%		AS FOUND	50
BUSHING OIL LEVEL	0%		100%		AS FOUND	50
TRANSFORMER PRESSURE			<input type="checkbox"/> KPA <input type="checkbox"/> PSI		AS FOUND	0
GAS RELAY					AS FOUND	

### TAP CHANGER

MANUFACTURER MOLONEY ELECTRIC MODEL \_\_\_\_\_  
 SERIAL NO. \_\_\_\_\_ YEAR 1965 GALLONS 400L

TAP CHANGER OIL TEMP	MIN		Max	39	AS FOUND	38
TAP CHANGER OIL LEVEL	MIN		Max		AS FOUND	25
TAP POSITION	MIN	4	Max	9	AS FOUND	8
COUNTER					AS FOUND	34,284
DIVERTOR OIL LEVEL	MIN		Max		AS FOUND	
HEATER CONDITION		<input checked="" type="checkbox"/> G	<input type="checkbox"/> P	<input type="checkbox"/> C	<input type="checkbox"/> I	
RELIEF VENT		<input checked="" type="checkbox"/> G	<input type="checkbox"/> P	<input type="checkbox"/> C	<input type="checkbox"/> I	

OIL FILTRATION PUMP PSI:  FILTER TYPE:  FILTER CHANGE DATE:  HOURS:



## TRANSFORMER

MANUFACTURER PENNSYLVANIA TRANSFORMER TECH  
 SERIAL NUMBER C-09062-5-1  
 YEAR 2014  
 TYPE CONSERVATOR  
 IMPEDANCE 10.2 %  
 TEMPERATURE RISE 65 °C  
 HV BIL 550  
 LV BIL 110

KVA 15,000 / 20,000 / 25,000  
 PRIMARY VOLTAGE 110,000 / DELTA  
 SECONDARY VOLTAGE 12,480 / 7,205 WYE  
 OIL VOLUME 18665 L  
 TOTAL WEIGHT 54735 KG  
 # OF FANS 8  
 TAP CHANGER EXTERNAL

VISUAL INSPECTION	CONDITION
BUSHINGS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
MAIN TANK	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
COOLING	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
OIL TANK	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
FOUNDATION	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
GROUNDING	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
GASKET & SEALS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
CONNECTORS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
OIL LEAKS	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
OIL LEVEL	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
OVERALL	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E

### GAUGES

NOTE: TRANSFORMER OIL LEVEL = 50% @ 25C

WINDING TEMPERATURE	MIN		Max	70	AS FOUND	25
OIL TEMPERATURE	MIN		Max	26	AS FOUND	20
TRANSFORMER OIL LEVEL	0%		100%		AS FOUND	50
BUSHING OIL LEVEL	0%		100%		AS FOUND	40
TRANSFORMER PRESSURE			<input type="checkbox"/> KPA <input type="checkbox"/> PSI		AS FOUND	
GAS RELAY					AS FOUND	

### TAP CHANGER

MANUFACTURER REINHAUSSEN MODEL MD1-I  
 SERIAL NO. 1400253 YEAR 2013 GALLONS \_\_\_\_\_

TAP CHANGER OIL TEMP	MIN		Max	23	AS FOUND	19
TAP CHANGER OIL LEVEL	MIN		Max		AS FOUND	50
TAP POSITION	MIN	8	Max	15	AS FOUND	13
COUNTER					AS FOUND	45,515
DIVERTOR OIL LEVEL	MIN		Max		AS FOUND	
HEATER CONDITION		<input checked="" type="checkbox"/> G	<input type="checkbox"/> P	<input type="checkbox"/> C	<input type="checkbox"/> I	
RELIEF VENT		<input checked="" type="checkbox"/> G	<input type="checkbox"/> P	<input type="checkbox"/> C	<input type="checkbox"/> I	

OIL FILTRATION PUMP PSI:  FILTER TYPE:  FILTER CHANGE DATE:  HOURS: