

TYPE ROUTINE	INSPECTION	STATIO	ON HA	4WKESBUI	RY MS		ISSUE DATE				
	TES	SIER ST	_			C	OMPLETED DATE	4/17/2024			
SUBSTATION ADDRESS						TESTED BY	KEVIN	N SOMERS			
FEEDER/NOMENCLATURE	TESSIER	_ AMBIENT	TEMPERATU	RE 12	°C	TESTED BY	DAVE	LEFEBVRE			
WORK ORDER #	680819			TE	ST STA	TUS					
PROCEDURE											
FOLLOW WORK PROCE					ND CH	IECK APPRO	DRIATE 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 ITI					REMAR					
G V P C I N/A		,	ENCE GROUN	IDING HAS B	SEEN CL	JT IN SPOTS, N	NEEDS REPAIR.				
G P C I V N/A											
G P C I N/A			==:: 5! ATE	- C:2T4 L L	3005	53001017	· - 3:5 0::0 OF LITPE				
G P C I N/A			ETAL PLATE	@ G4311-L L	_00SE /	AND POSSIBLY	/ BRIDGING CENTRE	PHASE INSULATOR.			
G P C I N/A			A OD MEGT IN	1054 DECL	20ED III	""" (A OF LICOD					
G P C C I C N/A			ASP NEST IN	43FT REGLO	JSEK LI	INKAGE HOOD					
G P C I N/A		1 SIGN									
VG P C T I N/A		NI.									
G P C T I N/A		IN .									
G P C T I N/A		FPARATOR	CLEAN W	ATER	OIL SH	FEN 5	SCADA STATUS OK				
G P C I V N/A			02	, , ,	0.2		70/12/13/11/12				
G P C I N/A											
G P C I V N/A											
YES NO	VERIFY PUBLISHED DRAV	WINGS PRESENT	т ?								
YES NO	VERIFY UP TO DATE SING	SLE LINE PRESE	ENT ?								
☐ YES 🔽 NO	SPARE BUSHINGS ON SIT	ſE									
YES NO	UWPC LOCKS AVAILABLE										
YES NO	VERIFY IF ANY RELAY I	FLAGS PRESE	NT								
YES NO	VERIFY ALL BREAKER I	RACKING HAN	IDLES PRESE	NT							
☐ YES ☐ NO	VERIFY BREAKER RAC	KING MOTORS	S PRESENT								
YES NO											
G = ITEMS FOUND IN SATISFAC											
P = ITEMS FOUND IN POOR COC = ITEMS REPAIRED OR CORF				ΓΙΟΝ							
I = ITEMS REQUIRING IMMEDIA			JINDITION								
COMMENTS: DEFICIENCIES:											
	AL	LARMS & GREE	EN TAGS (SY	STEM OFFIC	CE CHE	 СК)					
ALARM OR GREEN TAG	AS FOUND	AS LE	EFT				NOTES				



PAGE **AUTOMATIC TRANSFER SWITCH OPERATION** PASS / FAIL NOTES VERIFY OPERTION BY OPENING NORMAL FEED **PASS** CONFIRM STATUS WITH SYSTEM OFFICE PASS STATION BATTERIES AND CHARGER **NUMBER OF CELLS** SPECIFIED VOLTAGE PER CELL PASS / FAIL NOTES DC SYSTEM VERIFY NO ALARMS ON CHARGER PASS VERIFY GROUNDING CONTINUITY PASS **VERIFY CORROSION** PASS VERIFY WATER LEVELS (top-up if required) PASS ACCEPTABLE RANGE DC VOLTAGE Volts CHARGER DISPLAY VOLTAGE 125V to 130V MEASURED BANK VOLTAGE (disconnect charger) > 90% OF (SPECIFIED CELL VOLTAGE x NUMBER OF CELLS) **SUMP PUMP** PASS / FAIL Operation RUN FOR 1 MIN TO CONFIRM OPERATION PASS

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ANUFACTURER	FERRANTI-PACKARD (T1)	KVA	10,000 /	13,300 /	16,700
ERIAL NUMBER	0308401001	PRIMARY VOLTAGE	44,000 /		DELTA
EAR	1985	SECONDARY VOLTAGE	12,470 /	7,200	WYE
PE	SEALED	OIL VOLUME	L		
PEDANCE	6.96 %	TOTAL WEIGHT	31397 KG		
EMPERATURE RISE	65 °C	# OF FANS	6		
/ BIL	250	TAP CHANGER	INTERNAL		
/ BIL	95				
VISUAL INSPECTION	CONDITION	GAUGES	NOTE:	TRANSFORMER C	OIL LEVEL = 50%
ISHINGS	V A □ B □ C □ D □	WINDING TEMPERATUR		Max 73	AS FOUND
IN TANK		OIL TEMPERATURE	MIN	Max 26	AS FOUND
OLING	VA DB DC DD	TRANSFORMER OIL LEV	/EL 0%	100%	AS FOUND
TANK	VA DB DC DD	BUSHING OIL LEVEL	0%	100%	AS FOUND
UNDATION	VA DB DC DD	TRANSFORMER PRESSU	JRE	KPA 🗸 PSI	AS FOUND
ROUNDING		GAS RELAY		1	AS FOUND
ASKET & SEALS	VA TB TC TD T	TAP CHANGER			
		MANUFACTURER		MODE	L
NNECTORS	V A B C D D	SERIAL NO.	Y	EAR	GALLONS
L LEAKS	V A B C D	TAP CHANGER OIL TEM	MP MIN	Max	AS FOUND
. LEVEL	V A □ B □ C □ D □	TAP CHANGER OIL LEV	EL MIN	Max	AS FOUND
'ERALL	▼ A	TAP POSITION	MIN	Max	AS FOUND
		COUNTER			AS FOUND
		DIVERTOR OIL LEVEL	_ MIN	Max	AS FOUND
		DIVERTOR OIL LEVEL HEATER CONDITION		Max P C I	AS FOUND



									PAGI	E
TRANSFORMER										
MANUFACTURER	PIONEER TRANSFORMERS	K	VA	10,00	ın	/	13,330	, /	16,670	
SERIAL NUMBER	G16194-1		RIMARY VOLTAGE	44.00		,	10,000	,	DELTA	
YEAR	2012	-	ECONDARY VOLTAGE	12,47		,	7,200		DELTA	
	SEALED		IL VOLUME	12,71			7,200		DLLIN	
			_	200	00					
MPEDANCE	6.91 %		OTAL WEIGHT		28880					
TEMPERATURE RISE	65 °C		OF FANS	<u>6</u>			_			
HV BIL		1.	AP CHANGER	EXTER	KINA	<u> </u>				
LV BIL										
VISUAL INSPECTION	CONDITION	1	GAUGES			NOTE:	TRANSI	FORMER (OIL LEVEL = 5	0% @ 25C
BUSHINGS	V A □ B □ C □ D □ E		WINDING TEMPERATU	RE M	IN		Max	28	AS FOUND	20
IAIN TANK	V A B C D D E		OIL TEMPERATURE				Max	26	AS FOUND	19
COOLING	TA B V C D D E	1	TRANSFORMER OIL LEV				100%		AS FOUND	33
OIL TANK		1	BUSHING OIL LEVEL TRANSFORMER PRESSI		0% 100% Г КРА ▼ PSI		AS FOUND	40		
FOUNDATION	VA B C C D C E		GAS RELAY	OKE	I NPA V POI		AS FOUND	0		
GROUNDING	VA DB DC DD DE	1								
GASKET & SEALS	VA DB DC DD DE		TAP CHANGER							
CONNECTORS	VA DB DC DD DE	1	MANUFACTURER		ΑE	3B		MODE	L UZERT	250/300
OIL LEAKS	VA TB TC TD TE		SERIAL NO. 1ZSC 8	8714 910)	YI	EAR	2013	GALLONS	
OIL LEVEL	VA □B □C □D □E	4	TAP CHANGER OIL TE				Max		AS FOUND	
OVERALL	VA DB CCDDE		TAP CHANGER OIL LEV				Max		AS FOUND	33
JVERALL	NA BICIDIE		TAP POSITION COUNTER	М	IN	12	Max	12	AS FOUND	12
			DIVERTOR OIL LEVE	ı M	INI I		May		AS FOUND AS FOUND	2,586
			HEATER CONDITION		MIN Max AS					1
			RELIEF VENT							
			INCLIEN VEINT		<u> </u>	<u> </u>	<u> </u>	<u> </u>		
OIL FILTRATION PUMP PSI	: FILTER TYPE:		FIL	TER CH	AN(GE DATI	≣:		HOURS:	

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TYPE ROUTINE	INSPECTION	STATION _	HAWKESBURY		ISSUE DATE							
SUBSTATION ADDRESS	MAI	IN ST			COMPLETED DATE 4/17/2024							
FEEDER/NOMENCLATURE HA	WKSBURY 115KV	AMBIENT TEMP	erature 10 °	_	KEVIN SOMERS DAVE LEFEBVRE							
WORK ORDER #	680819		TEST	Γ STATUS								
PROCEDURE												
FOLLOW WORK PROCE	DURES FOR THE LIST	ED INDIVIDUAL	INSPECTIONS AND	O CHECK APPRO	ORIATE BOX							
CHECK ALL ITEMS SPEC	FIFIC TO THIS STATION A	AND COMPLETE	ALL PAGES.									
CALL INTO SYSTEM AN	Y TARGETS OR FLAG	GING AND RESE	T UPON DEPART	URE								
CONDITION	INSPECTION ITEM REMARKS											
VG P C I N/A	YARD (fence, gate, grounds,	stone) Cut fenc	e grounds have been re	eplaced with aluminu	m cable.							
VG □ P □ C □ I □ N/A	OVERALL BUILDING CONDI	ITION E-house	bond to grid has been	cut and missing.								
VG P C C I N/A	PROTECTION RELAY PANE	ELS										
VG □ P □ C □ I □ N/A	OUTDOOR STRUCTURES											
VG P C C I N/A	STATION SERVICE TRANSF	FORMERS										
VG P C C I N/A	SWITCHGEAR / RECLOSER	RS Recloser	head missing bond on	all three tanks.								
VG P C C I N/A	STATION IDENTIFICATION	SIGN										
VG P C C I N/A	PPE SIGN											
VG P C C I N/A	SITE SAFETY NOTICE SIGN	ı										
G P C I V N/A	CONTAINMENT PIT											
□G □ P □ C □ I ▼ N/A	SUMP PIT / OIL WATER SER	PARATOR CL	EAN WATER O	IL SHEEN :	SCADA STATUS OK							
G P C I N/A	SMOKE DETECTOR VERIFIC	CATION										
☐ G ☐ P ☐ C ☐ I 🔽 N/A	DGA SERVICE LIGHTS											
G P C I V N/A	VERIFY ATS OPERATION											
YES NO	VERIFY PUBLISHED DRAW	INGS PRESENT	?									
YES NO	VERIFY UP TO DATE SINGL	LE LINE PRESENT	?									
▼ YES NO	SPARE BUSHINGS ON SITE		C-can									
YES NO	UWPC LOCKS AVAILABLE											
YES NO	VERIFY IF ANY RELAY F	LAGS PRESENT										
YES NO	VERIFY ALL BREAKER R	ACKING HANDLES	PRESENT									
YES NO	VERIFY BREAKER RACK	ING MOTORS PRE	SENT									
YES NO												
G = ITEMS FOUND IN SATISFACTP = ITEMS FOUND IN POOR CONTROL		ELITLIBE CORRECT	VE ACTION									
P = ITEMS FOUND IN POOR CONC = ITEMS REPAIRED OR CORR												
I = ITEMS REQUIRING IMMEDIA	TE CORRECTIVE ACTIONS	3										
COMMENTS: prints on site are	e new equipment only, station	could use some orga	anizing for up tp date pri	nts and single line. E	house floor crowded with spare parts that could be							
held in C-can. T	T1 WINDING TEMP GAUGE	NOT RESETTING.	72 NEEDS NEW SILICA	A BEADS, OIL LEAK	FROM DETC.							
	ALA	ARMS & GREEN TA	GS (SYSTEM OFFICE	CHECK)								
ALARM OR GREEN TAG	AS FOUND	AS LEFT			NOTES							



PAGE **AUTOMATIC TRANSFER SWITCH** PASS / FAIL NOTES **OPERATION** VERIFY OPERTION BY OPENING NORMAL FEED **PASS** CONFIRM STATUS WITH SYSTEM OFFICE **PASS** STATION BATTERIES AND CHARGER NUMBER OF CELLS 10 SPECIFIED VOLTAGE PER CELL 13.5 PASS / FAIL NOTES DC SYSTEM VERIFY NO ALARMS ON CHARGER PASS VERIFY GROUNDING CONTINUITY **PASS** VERIFY CORROSION **PASS** VERIFY WATER LEVELS (top-up if required) PASS **ACCEPTABLE RANGE** DC VOLTAGE Volts 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) SUMP PUMP PASS / FAIL Operation RUN FOR 1 MIN TO CONFIRM OPERATION PASS CIRCUIT SWITCHER **AMPERES** NOMENCLATURE 1200 55T3-L CURRENT RATING SIEMENS 121 MANUFACTURER **VOLTAGE CLASS** kV VISUAL IMSPECTION CONDITION PSI RED WHITE BLUE KPA С SF6 LEAKS **▽** A SF6 GAS PRESSURE 64 64 64 TANK & MECHANISM BOX **V**A ☐B ☐C ☐ D ☐ E **OPERTION COUNTER** 78 VA B B C D D E **BUSHINGS & INSULATORS** CONTROL MECHANISM **V**A □B □C □D □E VA B B C D D E FOUNDATION, FRAME, GROUNDING

HEATING BLANKET OPERATION

N/A



DISCONNECT LIVE PARTS

STATION INSPECTION

						PAG	E	
CIRCUIT SWITCHER								
NOMENCLATURE	55T2-L		CURRENT RATIN	G	1200	A	AMPERES	
MANUFACTURER	SIEMENS		VOLTAGE CLASS	3	121	k	kV	
VISUAL IMSPECTION	CONDITION	1	♠ PSI	С кра	RED	WHITE	BLUE	
SF6 LEAKS	V A C C F E		SF6 GAS	PRESSURE	60	60	60	
ANK & MECHANISM BOX	V A □B □C □D □E					1		
BUSHINGS & INSULATORS	V A □ B □ C □ D □ E		OPERTIO	N COUNTER	21	j		
CONTROL MECHANISM	V A □B □C □D □E							
OUNDATION, FRAME, GROUNDING	V A □ B □ C □ D □ E							
HEATING BLANKET OPERATION	N/A	1						
SWITCH								
IOMENCLATURE	55T3-LBS							
VISUAL IMSPECTION	CONDITION							
BUSHINGS & INSULATORS	V A □ B □ C □ D □ E							
OUNDATION, FRAME, GROUNDING	V A □B □C □D □E	1						
DISCONNECT LIVE PARTS	V A □ B □ C □ D □ E							
SWITCH								
NOMENCLATURE	55T2-LBS							
VISUAL IMSPECTION	CONDITION	7						
BUSHINGS & INSULATORS	V A □ B □ C □ D □ E							
COUNDATION EDAME CROUNDING		7						

V A □ B □ C □ D □ E



									PAGI	<u> </u>
TRANSFORME	R									
MANUFACTURER	MOLONEY ELECTRIC	K	VA	3,5	00	/	10,000) /	13,500	
SERIAL NUMBER	213081	<u> </u>	PRIMARY VOLTAGE	110,	000	/			DELTA	
YEAR	1965	 	ECONDARY VOLTAGE	12,4	180	/	7,200)	WYE	
ГҮРЕ	CONSERVATOR	0	IL VOLUME			L				
MPEDANCE	8.9 %	T.	OTAL WEIGHT	9485	0 LB	S				
TEMPERATURE RISE	°C	#	OF FANS		8					
HV BIL	550	Т	AP CHANGER	EXTE	ERNA	AL.				
LV BIL	110		•			,				
VISUAL INSPECTION	N CONDITION	\neg	GAUGES			NOTE:	TRANS	FORMER (OIL LEVEL = 5	0% @ 25C
BUSHINGS		Е	WINDING TEMPERAT	URE I	MIN		Max		AS FOUND	
MAIN TANK	A VB C D		OIL TEMPERATUR	E N	MIN		Max	60	AS FOUND	30
COOLING			TRANSFORMER OIL LI	EVEL ()%		100%		AS FOUND	50
DIL TANK	□ A ▼ B □ C □ D □	_	BUSHING OIL LEVE)%		100%		AS FOUND	50
FOUNDATION		_	TRANSFORMER PRESS GAS RELAY	SURE			KF	A PSI	AS FOUND AS FOUND	0
GROUNDING		l E	GAS RELAT						AS FOUND	
GASKET & SEALS		_	TAP CHANGER	₹						
CONNECTORS			MANUFACTURER	MOLO	ONEY	/ ELECT	RIC	MODE	EL	
OIL LEAKS			SERIAL NO.			Y	EAR	1965	GALLONS	400L
			TAP CHANGER OIL T	EMP I	MIN		Max	39	AS FOUND	38
OIL LEVEL	A B C D		TAP CHANGER OIL LE	EVEL I	MIN		Max		AS FOUND	25
OVERALL	TA B C C D	E	TAP POSITION	١	MIN	4	Max	9	AS FOUND	8
			COUNTER						AS FOUND	34,284
			DIVERTOR OIL LEV	-	MIN		Max		AS FOUND	
			HEATER CONDITION	N	Ø G □ P □ C □ I					
			RELIEF VENT		V	G 🔲	P 🔲	C 🔲 I		
OIL FILTRATION PUMP	PSI: FILTER TYPE:		F	ILTER C	HAN	GE DAT	E:		HOURS:	

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OIL FILTRATION PUMP PSI:

FILTER TYPE:

STATION INSPECTION

											PAGE	
TRANSFORMI	ER											
MANUFACTURER	PENSY	LVANIA TRANSF	ORMER TECH	K	VA	15,	,000	/	20,000) /	25,000	
SERIAL NUMBER		C-09062-5-	1	P	RIMARY VOLTAGE	110	,000	/			DELTA	
YEAR		2014		S	ECONDARY VOLTAGE	12.	480	/	7,205		WYE	
TYPE	CONSI	ERVATOR		0	IL VOLUME	18	665	L				
IMPEDANCE	10.			т.	OTAL WEIGHT							
•					-	347	35 KC					
TEMPERATURE RISE	65				OF FANS	EVT	8 EDM/					
HV BIL		550		17	AP CHANGER _	EXI	ERNA	<u>\L</u>				
LV BIL		110										
VISUAL INSPECTION	ON	COND	ITION		GAUGES			NOTE:	TRANSI	FORMER C	OIL LEVEL = 50	% @ 25C
BUSHINGS		Г А Г В Г	C T D T E		WINDING TEMPERAT	URE	MIN		Max	70	AS FOUND	25
MAIN TANK		Г А □ В □	C D D E		OIL TEMPERATUR		MIN		Max	26	AS FOUND	20
COOLING		▽ A □ B □	CDDE		TRANSFORMER OIL L		0%		100%		AS FOUND	50
OIL TANK		V A □B □	СПВПЕ		BUSHING OIL LEVE		0%		100%	. 🗖 🖦	AS FOUND	40
FOUNDATION			C C D C E		GAS RELAY	SUKE			L KP	A PSI	AS FOUND	
GROUNDING		VA DB D	СПОПЕ		0/10/1122/11	L			<u> </u>		7.0 . 00.15	
GASKET & SEALS			CDDDE		TAP CHANGER	₹	_					
CONNECTORS			СПОПЕ		MANUFACTURER	R	EINH	AUSSEN		MODE	L MD	11-l
OIL LEAKS		= = =	C T D T E		SERIAL NO. 1	400253		YE	EAR .	2013	GALLONS	
OIL LEVEL			CDDE		TAP CHANGER OIL T		MIN		Max	23	AS FOUND	19
OVERALL			CDDE		TAP CHANGER OIL LE		MIN		Max		AS FOUND	50
OVERALL		IV A D			TAP POSITION COUNTER		MIN	8	Max	15	AS FOUND	13
					DIVERTOR OIL LEV	EL	MIN		Max		AS FOUND	45,515
					HEATER CONDITION			G \square	<u> </u>			
					RELIEF VENT			_=				

FILTER CHANGE DATE:

HOURS: