RC

INVENTORY 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95

Ward Transformer Co., Inc.
TRANSFORMER DEPT.

№ 2820

Received From: TEXAS Gulf
Town: AURORA State Ill.
Received Via: Date: 1/28/91
Card Made: J. Gafner P. O. No:
Sold To:

Original Cost:
Shop Cost:
Incoming Freight:
Date Billed:
Our R No:
Cust. Order No:

EQUIPMENT: STATION TYPE
Serial No. 2C 44493-1-2

~~Make~~ H.V.: 22900	K.V.A. 1500	Imp. 5.6	Phase: 3	Style No.
~~H.V. Volts~~ L.V.: 4160Y/2400	Type: STA.	Form:	Cycles: 60	Cat. No.
~~Serial~~ C GRAW EDISON	Gals Oil: 550	Pol:	~~N. P. No.~~ 55/65	Spec. No.
No. Taps 4 Taps	Up ☐ Down ☐	YEAR BUILT: 82		
(Nomex) Hot 580 gal.	Pocket Pri Sec / Stud Pri Sec	Top Pri Sec	Steel ☒	Cast ☐ Cast Top. Bot.
		Oblong ☐	Straight ☒	Round ☐ Corregated ☐ Fins ☒

CAME IN OIL POS. A.
24045
23472
22900 = 100% TAP
22327
21755
9.541 = 100% TAP
WELDED TOP

Ht. top of H. V.: 107"
Ht. No. H. V. Bush: 102"
Dia: Wide: 80"
Deep: 75"
Oil Level Gauge ☒ Thermometer ☒
Tap Changer: External ☒ Internal ☐

Tank & Fittings: 3650
C & C Wt: 3900
Oil Wt: 4125
Total Wt: 11,675

NEW USER:
REBUILT USER:
DEALER:

REMARKS: WILL NOT T.T.R.
L-G Ground.
H-G Ground.
H-L Ground.
OIL, DI-ELECT 30 KV. BUT BURNT.

TAKE APART IRON —

10816808

TRANSFORMER TEST

Continuity [ ]	Lead Clearances [X]	Exciting Current ____ At 4160Y Volts	Core Loss ____ At 4160Y Volts
Oil [N] [R]	Oil Level [X]	500 Cycles [ ] At ____ L Volts	High Pot. [X] High To Grd. 45 K. V.
Grd Terminals [1] [2]	Surge Tested [ ]	Radio Interference OK [ ] Polprity [A] [B]	Low To Grd ____ 12 K. V.
Oil Leaks NO	Anti Siphon Joints [ ]	Impeadence Calculated ____ At ____ Volts	High To Low ____ K.V.
Pri. Grd. Connected [Y] [N]	Sec. Grd. Connected [Y] [N]	Number Taps 4 What %	Up 2 Down 2

SECONDARY BREAKER			Position	% Tap	Connect	Pot. Difference	T.T.R. Ratio	Calculated Ratio
Breaker No.			A		10.014	10.015	10.014	
Trip and Reset [ ]	Oil Temp	°C	B		9.774	9.775	9.774	
Factory Trip Allowable	To	Secs.	C	100%	9.534	9.536	9.534	9.541
Factory Trip Current	At	°C	D		9.295	9.296	9.295	
Shop Trip Current	At	°C	E		9.056	9.057	9.056	
Shop Trip Time Right Side		Secs.		OUT	ON A	POSITION	% TAP	
Shop Trip Time Left Side		Secs.						

INSULATION POWER FACTOR			OIL TEST		INCOMING [ ]	OUTGOING [ ]
High to Grd.	I.P.F.	M.F.	SHOT A	SHOT B	Color	0.5
High to Low	I.P.F.	M.F.	No. 1 K. V.	No. 1 K. V.	~~Neut No.~~ Acid	.03
Low to Grd.	I.P.F.	M.F.	No. 2 K. V.	No. 2 K. V.	~~P.C.B.~~ P.C.B.	New Non PCB oil
Megger High to Grd.	In	Out	No. 3 K. V.	No. 3 K. V.	Power Factor	
Megger Low to Grd	In	Out	No. 4 K. V.	No. 4 K. V.	Oxidation %	Time
Megger High to Low	In	Out	No. 5 K. V.	No. 5 K. V.	Oxidation %	Time
			TOTAL K. V.	TOTAL K. V.	Average K. V.	30 - 30 - 30

Fuse No.	Good [ ]	Bad [ ]	GRD. Clamps	[ ]	OUT	Approved: YES
Hangers	IN	OUT	Pri. Bushing Good	[ ]	OUT	Date Tested: 2/25/91
Arrestors	IN	OUT	Sec. Bushing Good	[ ]	OUT	Tested
Paint		OUT	Sec. Breaker	IN	OUT	By: [signature]

REMARKS:

NEW Oil.

L-G- 15,000
H-G- 15,000 } 2500 Volt Scale.
H-L- 25,000

OHMS	22°C	OHMS.
H-1- H-2-	2.64	X-1-X-2- .073
H-2- H-3-	2.64	X-2-X-3- .073
H-1- H-3-	2.64	X-1-X-3- .073

UNITED POWER SERVICES INCORPORATED

OIL TEST REPORT

CUSTOMER: Texas Gulf CITY: Aurora STATE: NC UPSI NO: 93

NAME PLATE DATA

Make	McGraw/Edison	High Voltage	22,900	No. Radiators	4/14	Ground	X
Serial No.	C-44493-1-2	Low Voltage	4160Y/2400	No. Fans	None	Outside	X
Company Equip. #	G-261	Impedance	5.6	Physical Dimensions	7'x3'x7'	Inside	
Location	Mine 103-Sub	KVA	1,500	Gas Headspace	Yes	Platform	
Gallons	550	Phase/Cycle	3/60	Water Cooled	No	Pole	
Fluid	Oil	Date Mfg.		Bushings Top/Side/Oil	Top/Side	Roof	
Valves	1"BV	Welded Lid	Yes	Conservator Tank	No	Access	40'

TRANS	X	OCB		RECT.		FURN.		PRECIP.		TAPC.		SW.		REG.	

EQUIPMENT INSPECTION DATA

Date	Oper. Temp	Peak Temp	Fluid Level	PSI VAC	Paint	Bushing	Environ-ment	LEAKS	RECOMMENDED SERVICE
9/90	33	64	N	0	Good	Clean	Clean	None	Inspect 1 yr.

LIQUID TEST DATA

Date	D877 Dielectric	D974 Neut No	D971 I.F.T.	D1524 Color	D1524 Visual	D1298 S.G.	D924 P.F.	D1533 H20/PPM	D3612 DGA	ICP Metals	PCB PPM	Classification	Required Service
9/90	48	0.016	32.1	1.0	Clear	0.890	0.039 0.42	8	Yes	Yes		Good	Retest 1 yr.

PCB PPM CONTENT

Date	PCB Certificate Number	1242	1254	1260	Other	Total

P.O. Box 100922
Nashville, Tennessee 37210-0922
(615) 255-3700

UNITED POWER SERVICES INCORPORATED
313 Hill Ave. • P.O. Box 100922 • Nashville, TN 37210-0922 • 615/255-3700
1-800-USE-UPSI • Fax 615/256-0915

COMPANY Texas Gulf
LOCATION Aurora, NC
SUB NAME OR NO. Mine 103 Sub.
LABORATORY NO. 93

ICP METAL OIL ANALYSIS

ANF. X OCB ___ RECT. ___ FURN. ___ PRINCP. ___ SW ___ OTHER ___

KE McGraw Edison — VOLTAGE RATING 22,900

RIAL # C-44493-1-2 — KVA RATING 1,500

. DATE ___ — GALLONS Oil, 550

Element Values Expressed In Parts Per Million (PPM)

E	ALUMINUM	COPPER	IRON	LEAD	SILVER	TIN	ZINC
90	0	0	0	0.24	0	0	0

ARKS:

High value of lead. This element is not normally found in transformer oil. Possible source connectors. Establishes baseline. Detection limit 0.050ppm.

TRANSFORMER OIL TEST REPORT

EQUIP. NO. 115 PAGE 11

CUSTOMER	CUSTOMER NUMBER	CONTACT / PHONE
TEXAS GULF INC. P.O. BOX 48 AURORA NC 27806	856	00001000-0000

LOCATION: 103 SUB

COMMENTS:

OUTDOOR	INDOOR	RIG	ROOF	VAULT	POLE	PLATFORM	PORTABLE REQ'D	HOSE LENGTH	ELECT. POWER AVAILABLE
X						X			

NAME PLATE DATA

MANUFACTURER	SERIAL NUMBER	KVA	PRIMARY VOLTS	SECONDARY VOLTS	PHASE	TRANS	REG.	TAP COMP.	OIL SW.	D.C.B.	TANK
MORGAN-EDISON	C-44493-1-2	1500	22000	4160	3	X					

EQUIPMENT DATA

LIQUID TYPE	GALLONS	LIQUID LEVEL	IND TEMP °C	PEAK TEMP °C	PRESS LBS.	FANS UNCOUPLED	PUMPS UNCOUPLED	FANS	WATER COOLED	NO OIL	RADIA-TORS	CONS. OIL	FANS	PAINT EXTER.	FAN	PAINT INTER.	TOP VALVE DIAM.	BOT. VALVE DIAM.	POP TOP
OIL	550	N	40	55	0000				X	X		X		X				001	

ASTM NO.		D1500	D1524	D974	D877	D971	D1298	D924	D1533-77											REPAIR / TEST HISTORY COMMENTS
DATE	JOB NUMBER	COLOR	SLUDGE (VISUAL)	NEUT NO. MG KOH/g	DIEL. KV.	IFT DYNES/CM	SPECIFIC GRAVITY	POWER FACTOR (OPTIONAL)	WATER PPM (OPTIONAL)	DEHYD.	RECLAIM	MARGIN	PCB X	REMARK 1 YEAR	E/TEST	REPAIR	SAMPLED BY	TESTED BY		
10-88	302012	1.0	CLR	.015	45	36.1	.876	.12	33					X			JR	MLH		

N NORMAL
H HIGH
L LOW

N/A NOT AVAILABLE

NOTE: ASKAREL - COLOR ASTM D 2129

O OIL

A ASKAREL

RT R - TEMP

SL SILICONE

PCB ANALYSIS

DATE	11-88		
CERT NO.	15034		

JAN-23-91 WED 9:05 FRANK HLOCK REC 12919198325810 P.06

SHOP

WARD TRANSFORMER CO., INC.

P.O. BOX 30009 • MT. HERMAN CHURCH ROAD
RALEIGH, N.C. 27622

PHONE: 919-787-3553
800-334-9600

FAX: 919-787-1683

ORDER SHEET

ORDER NO.	DATE SOLD	SALESMAN
0003139474	01/29/91	33

CUSTOMER NO.	TERMS
007782	.0 % Disc - 0 Days Net

SOLD TO
TEXAS GULF INC
PO BOX 48
AURORA, NORTH CAROLINA
27806

SHIPPED OT/53
3-4-91

CUSTOMER P.O. NO. D41-1869
ATTENTION:
TELEPHONE NO.: 919-322-4111

SHIP TO
TEXAS GULF INC
HWY 306 NORTH
AURORA, NORTH CAROLINA
27806

~~HOLD UNTIL WK. OF 3-4-91 PER BILL FOSTER~~

REFERENCE NO.:
ATTENTION:
TELEPHONE NO.: 919-322-4111

DATE REQUIRED: 01/30/91 | F.O.B. PT. & FREIGHT: | SHIP VIA: WARD/PP&A

ITEM NUMBER	QTY. ORD.	QTY. SHIP	DESCRIPTION	UNIT	
3-2820	1	0	COMPLETE. REMAUFACTURE(3139474) OF MCGRAW EDISON STATION TYPE, SERIAL # LC44493-1-2 1500KVA, 3PH, HIGH VOLT: 22900 DELTA WITH 2-2.5% TAPS ABOVE AND BELOW, LOW VOLT: 4160Y/2400 60HZ, 55/65 DEGREE C RISE, 5.60% IMP., DIM: 107"H X 80"W X 75"D 11675 LBS. 550 GALLONS NEW COPPER, INSULATIN, OIL, EXOPY PAINT COST OF FREIGHT IN AND OUT..... NOTE:WE PICKED UP AND WILL RETURN CHARGE THEM FULL FREIGHT..... BILL FOSTER 919-322-8218	EA	1

job looked exceptionally good. Solid

W/O # 01/30.05

INSTRUCTIONS: