



GENERATOR LOAD TEST REPORT



CUSTOMER SAMPLE FORMS COMPANY PAGE _____
 ADDRESS _____ JOB # FORMS-ALL
 USER SAMPLE FORMS COMPANY
 OWNER REPRESENTATIVE _____ TELEPHONE _____
 DATE 5/7/2008 TEMPERATURE _____ °F HUMIDITY _____ % EQPT. LOCATION _____
 SUBSTATION GENERATORS POSITION GENERAL

NAMEPLATE DATA

GENERATOR MFR. _____ MODEL NO. _____ S/N _____
 KVA _____ KW _____ VOLTS _____ AMPS _____ PHASE _____ CYCLES _____ RPM _____
 GENERATOR CONTROL MFR. _____ MODEL NO. _____ S/N _____
 GOVERNOR MFR. _____ MODEL NO. _____ S/N _____
 VOLTAGE REG. MFR. _____ MODEL NO. _____ S/N _____

TEST RUN

| TEST READING INTERVALS | START | | | | | | | | | | | | |
|-------------------------------|-------|--|--|--|--|--|--|--|--|--|--|--|--|
| REAL TIME | | | | | | | | | | | | | |
| TARGET KILOWATT LOADING | | | | | | | | | | | | | |
| ENGINE SPEED - R.P.M. | | | | | | | | | | | | | |
| FREQUENCY - HERTZ | | | | | | | | | | | | | |
| ENGINE WATER °F | | | | | | | | | | | | | |
| RADIATOR WATER TEMPERATURE °F | | | | | | | | | | | | | |
| ENGINE OIL TEMPERATURE °F | | | | | | | | | | | | | |
| ENGINE OIL PRESSURE - PSI | | | | | | | | | | | | | |
| PANEL METER VOLTAGE READING | | | | | | | | | | | | | |
| MEASURED VOLTAGE | | | | | | | | | | | | | |
| PANEL METER AMPERE READING | | | | | | | | | | | | | |
| MEASURED AMPERES | | | | | | | | | | | | | |
| PANEL METER KILOWATT READING | | | | | | | | | | | | | |
| MEASURED KILOWATT READING | | | | | | | | | | | | | |
| BATTERY VOLTAGE | | | | | | | | | | | | | |
| FUEL PRESSURE | | | | | | | | | | | | | |

FUEL MONITORING SYSTEM

VOLUME _____ GAL. ULLAGE _____ GAL. 90% ULLAGE _____ GAL. TC VOLUME _____ GAL.
 HEIGHT _____ INCHES WATER _____ GAL. WATER _____ INCHES TEMPERATURE _____ °F
 TIME _____

COMMENTS: _____
 DEFICIENCIES: _____

EQPT. INVENTORY NO. _____ TESTED BY: _____



CO-GENERATION SYSTEM SYSTEM STATUS & SHUTDOWN TESTS



CUSTOMER SAMPLE FORMS COMPANY PAGE _____
 ADDRESS _____ JOB # FORMS-ALL
 USER SAMPLE FORMS COMPANY
 OWNER REPRESENTATIVE _____ TELEPHONE _____
 DATE 5/7/2008 TEMPERATURE _____ °F HUMIDITY _____ % EQPT. LOCATION _____
 SUBSTATION GENERATORS POSITION GENERAL

NAMEPLATE DATA

MANUFACTURER _____ SERIAL NO. _____ TYPE _____
 CATALOG NO. _____ SYSTEM VOLTAGE _____ AMPACITY _____
 WIRING NO. _____ INSTALLED OPTIONS _____

| DESCRIPTION | INSPECTED | CONDITION | CLEAN/LUBE |
|------------------------|--------------------------|-----------|------------|
| OVERALL CLEANLINESS | <input type="checkbox"/> | | |
| INSULATING MEMBERS | <input type="checkbox"/> | | |
| MECHANICAL CONNECTIONS | <input type="checkbox"/> | | |

| DESCRIPTION | INSPECTED | CONDITION | CLEAN/LUBE |
|---------------------|--------------------------|-----------|------------|
| ARC CHUTES | <input type="checkbox"/> | | |
| OPERATING MECHANISM | <input type="checkbox"/> | | |
| CONTACT SEQUENCE | <input type="checkbox"/> | | |

| INDICATION | ALARM INITIATED | SIREN ACTIVATED | INDICATOR LAMP ACTIVATED |
|-----------------------------|-----------------|-----------------|--------------------------|
| EG-1 RUNNING | | | |
| EG-1 ON LINE | | | |
| EG-1 LOCKED OUT | | | |
| MANUAL PARALLEL AVAILABLE | | | |
| BUS OVERLOAD | | | |
| EG-2 RUNNING | | | |
| EG-2 ON LINE | | | |
| EG-2 LOCKED OUT | | | |
| PRI-2 LOAD SHED ACTIVE | | | |
| PRI-2 LOAD SHED BYPASSED | | | |
| EG-3 RUNNING | | | |
| EG-3 ON LINE | | | |
| EG-3 LOCKED OUT | | | |
| PRI-3 LOAD SHED ACTIVE | | | |
| PRI-3 LOAD SHED BYPASSED | | | |
| LOAD DEMAND OPERATION | | | |
| PLC STOPPED | | | |
| PLC BATTERY CHARGER FAILURE | | | |
| BUS OVER FREQUENCY | | | |
| BUS UNDER VOLTAGE | | | |
| BUS OVER VOLTAGE | | | |
| EMERGENCY OPERATION | | | |
| CO-GENERATION OPERATION | | | |
| | | | |
| | | | |

COMMENTS:

| |
|--|
| |
|--|

 DEFICIENCIES:

| |
|--|
| |
|--|

EQPT. INVENTORY NO. _____ TESTED BY: _____



GENERATION SYSTEMS SYSTEM STATUS AND SHUTDOWN TESTS



CUSTOMER SAMPLE FORMS COMPANY PAGE _____
 ADDRESS _____ JOB # FORMS-ALL
 USER SAMPLE FORMS COMPANY
 OWNER REPRESENTATIVE _____ TELEPHONE _____
 DATE 5/7/2008 TEMPERATURE _____ °F HUMIDITY _____ % EQPT. LOCATION _____
 SUBSTATION GENERATORS POSITION GENERAL

NAMEPLATE DATA

MANUFACTURER _____ SERIAL NO. _____ TYPE _____
 CATALOG NO. _____ SYSTEM VOLTAGE _____ AMPACITY _____
 WIRING NO. _____ INSTALLED OPTIONS _____

| DESCRIPTION | INSPECTED | CONDITION | CLEAN/LUBE |
|------------------------|--------------------------|-----------|------------|
| OVERALL CLEANLINESS | <input type="checkbox"/> | | |
| INSULATING MEMBERS | <input type="checkbox"/> | | |
| MECHANICAL CONNECTIONS | <input type="checkbox"/> | | |

| DESCRIPTION | INSPECTED | CONDITION | CLEAN/LUBE |
|-------------------------|--------------------------|-----------|------------|
| ENVIRONMENTAL CONDITION | <input type="checkbox"/> | | |
| OPERATING MECHANISMS | <input type="checkbox"/> | | |

| STATUS TITLE INDICATIONS | ALARM INITIATED | | | SIREN ACTIVATED | | | INDICATOR LAMP ACTIVATED | | |
|--------------------------------------|-----------------|---|---|-----------------|---|---|--------------------------|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| GENERATOR NUMBER | | | | | | | | | |
| CIRCUIT BREAKER OPEN | | | | | | | | | |
| CIRCUIT BREAKER CLOSED | | | | | | | | | |
| CIRCUIT BREAKER TRIP SHUTDOWN | | | | | | | | | |
| CIRCUIT BREAKER CLOSE FAILURE | | | | | | | | | |
| OVERCRANK SHUTDOWN* | | | | | | | | | |
| OVERSPEED SHUTDOWN* | | | | | | | | | |
| LOW OIL PRESSURE SHUTDOWN* | | | | | | | | | |
| HIGH OIL TEMPERATURE SHUTDOWN* | | | | | | | | | |
| HIGH WATER TEMPERATURE SHUTDOWN* | | | | | | | | | |
| HIGH EXHAUST TEMPERATURE SHUTDOWN* | | | | | | | | | |
| HIGH CRANKSHAFT PRESSURE* | | | | | | | | | |
| REVERSE POWER SHUTDOWN | | | | | | | | | |
| REVERSE VARS SHUTDOWN | | | | | | | | | |
| EMERGENCY STOP* | | | | | | | | | |
| HIGH WATER TEMPERATURE PRE-ALARM | | | | | | | | | |
| LOW WATER LEVEL PRE-ALARM* | | | | | | | | | |
| LOW WATER TEMPERATURE | | | | | | | | | |
| LOW OIL PRESSURE PRE-ALARM * | | | | | | | | | |
| HIGH EXHAUST TEMPERATURE PRE-ALARM * | | | | | | | | | |
| HIGH INLET AIR TEMPERATURE * | | | | | | | | | |
| LOW BOILER WATER LEVELS | | | | | | | | | |
| COMPRESSED AIR SHUTDOWN | | | | | | | | | |
| HIGH WATER LEVEL | | | | | | | | | |
| EMERGENCY WATER FEED | | | | | | | | | |
| FAILURE TO SYNCHRONIZE | | | | | | | | | |
| CONTROL VOLTAGE FAILURE | | | | | | | | | |
| CONTROLS NOT IN AUTOMATIC | | | | | | | | | |
| ENGINE RUNNING * | | | | | | | | | |
| AUTOMATIC START | | | | | | | | | |
| BATTERY CHARGER FAILURE | | | | | | | | | |
| PROGRAMMER LOGIC CONTROLLER STOPPED | | | | | | | | | |
| HIGH STEAM PRESSURE | | | | | | | | | |
| HIGH BATTERY VOLTAGE | | | | | | | | | |
| LOW BATTERY VOLTAGE | | | | | | | | | |

* THE ALARM / SHUTDOWN WAS SIMULATED AT THE ENGINE GENERATOR AND VERIFIED AT THE SWITCHGEAR.

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. _____ TESTED BY: _____



GENERATION SYSTEMS SYSTEM STATUS AND SHUTDOWN TESTS



CUSTOMER SAMPLE FORMS COMPANY PAGE _____
 ADDRESS _____ JOB # FORMS-ALL
 USER SAMPLE FORMS COMPANY
 OWNER REPRESENTATIVE _____ TELEPHONE _____
 DATE 5/7/2008 TEMPERATURE _____ °F HUMIDITY _____ % EQPT. LOCATION _____
 SUBSTATION GENERATORS POSITION GENERAL

NAMEPLATE DATA

MANUFACTURER _____ SERIAL NO. _____ TYPE _____
 CATALOG NO. _____ SYSTEM VOLTAGE _____ AMPACITY _____
 WIRING NO. _____ INSTALLED OPTIONS _____

| DESCRIPTION | INSPECTED | CONDITION | CLEAN/LUBE |
|------------------------|--------------------------|-----------|------------|
| OVERALL CLEANLINESS | <input type="checkbox"/> | | |
| INSULATING MEMBERS | <input type="checkbox"/> | | |
| MECHANICAL CONNECTIONS | <input type="checkbox"/> | | |

| DESCRIPTION | INSPECTED | CONDITION | CLEAN/LUBE |
|--------------------------|--------------------------|-----------|------------|
| ENVIRONMENTAL CONDITIONS | <input type="checkbox"/> | | |
| OPERATING MECHANISMS | <input type="checkbox"/> | | |

| STATUS TITLE INDICATIONS | ALARM INITIATED | | | SIREN ACTIVATED | | | INDICATOR LAMP ACTIVATED | | |
|--------------------------------------|-----------------|---|---|-----------------|---|---|--------------------------|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| GENERATION NUMBER | | | | | | | | | |
| LOW OIL PRESSURE PRE-ALARM * | | | | | | | | | |
| HIGH EXHAUST TEMPERATURE PRE-ALARM * | | | | | | | | | |
| HIGH INLET AIR TEMPERATURE * | | | | | | | | | |
| LOW BOILER WATER LEVELS | | | | | | | | | |
| COMPRESSED AIR SHUTDOWN | | | | | | | | | |
| HIGH WATER LEVEL | | | | | | | | | |
| EMERGENCY WATER FEED | | | | | | | | | |
| FAILURE TO SYNCHRONIZE | | | | | | | | | |
| CONTROL VOLTAGE FAILURE | | | | | | | | | |
| CONTROLS NOT IN AUTOMATIC | | | | | | | | | |
| ENGINE RUNNING * | | | | | | | | | |
| AUTOMATIC START | | | | | | | | | |
| BATTERY CHARGER FAILURE | | | | | | | | | |
| PROGRAMMER LOGIC CONTROLLER STOPPED | | | | | | | | | |
| HIGH STEAM PRESSURE | | | | | | | | | |
| HIGH BATTERY VOLTAGE | | | | | | | | | |
| LOW BATTERY VOLTAGE | | | | | | | | | |

THE ALARM / SHUTDOWN WAS SIMULATED AT THE ENGINE GENERATOR AND VERIFIED AT THE SWITCHGEAR.

FORM 19200 (GENERATION SYSTEMS SYSTEM STATUS AND SHUTDOWN B1) MUST BE COMPLETED ALSO.

COMMENTS: _____
 DEFICIENCIES: _____

EQPT. INVENTORY NO. _____ TESTED BY: _____



GENERATOR POLARIZATION INDEX (PI) TEST



CUSTOMER SAMPLE FORMS COMPANY PAGE _____
 ADDRESS _____ JOB # FORMS-ALL
 USER SAMPLE FORMS COMPANY
 OWNER REPRESENTATIVE _____ TELEPHONE _____
 DATE 5/7/2008 TEMPERATURE _____ °F HUMIDITY _____ % EQPT. LOCATION _____
 SUBSTATION GENERATORS POSITION GENERAL

GENERATOR NAMEPLATE DATA:

GENERATOR MFR. _____ MODEL NO. _____ S/N _____
 KVA _____ KW _____ VOLTS (KV) _____ AMPS _____ PHASE _____ FREQUENCY _____ RPM _____
 GENERATOR CONTROL MFR. _____ MODEL NO. _____ S/N _____
 GOVERNOR MFR. _____ YEAR MANUF. _____ TYPE CHOOSE
 VOLTAGE REG. MFR. _____ FRAME TYPE _____ OTHER _____

PHASE TO GROUND TEST VOLTAGE _____ KVDC TEST VOLTAGE MULTIPLIER, K1 1 K2=(TCF) (K1)

CORE/COIL TEMPERATURE _____ °C TEMPERATURE CORRECTION FACTOR TO 20 °C, TCF DRY _____ LIQUID _____

| MINUTES | PHASE A TO GROUND | | | | PHASE B TO GROUND | | | | PHASE C TO GROUND | | | |
|--------------------|-------------------|-------|----|-------|-------------------|-------|----|-------|-------------------|-------|----|-------|
| | RDG. | MULT. | K2 | 20 °C | RDG. | MULT. | K2 | 20 °C | RDG. | MULT. | K2 | 20 °C |
| 0.25 | | | | | | | | | | | | |
| 0.50 | | | | | | | | | | | | |
| 0.75 | | | | | | | | | | | | |
| 1.00 | | | | | | | | | | | | |
| 1.25 | | | | | | | | | | | | |
| 1.50 | | | | | | | | | | | | |
| 1.75 | | | | | | | | | | | | |
| 2.00 | | | | | | | | | | | | |
| 3.00 | | | | | | | | | | | | |
| 4.00 | | | | | | | | | | | | |
| 5.00 | | | | | | | | | | | | |
| 6.00 | | | | | | | | | | | | |
| 7.00 | | | | | | | | | | | | |
| 8.00 | | | | | | | | | | | | |
| 9.00 | | | | | | | | | | | | |
| 10.00 | | | | | | | | | | | | |
| POLARIZATION INDEX | | | | | | | | | | | | |

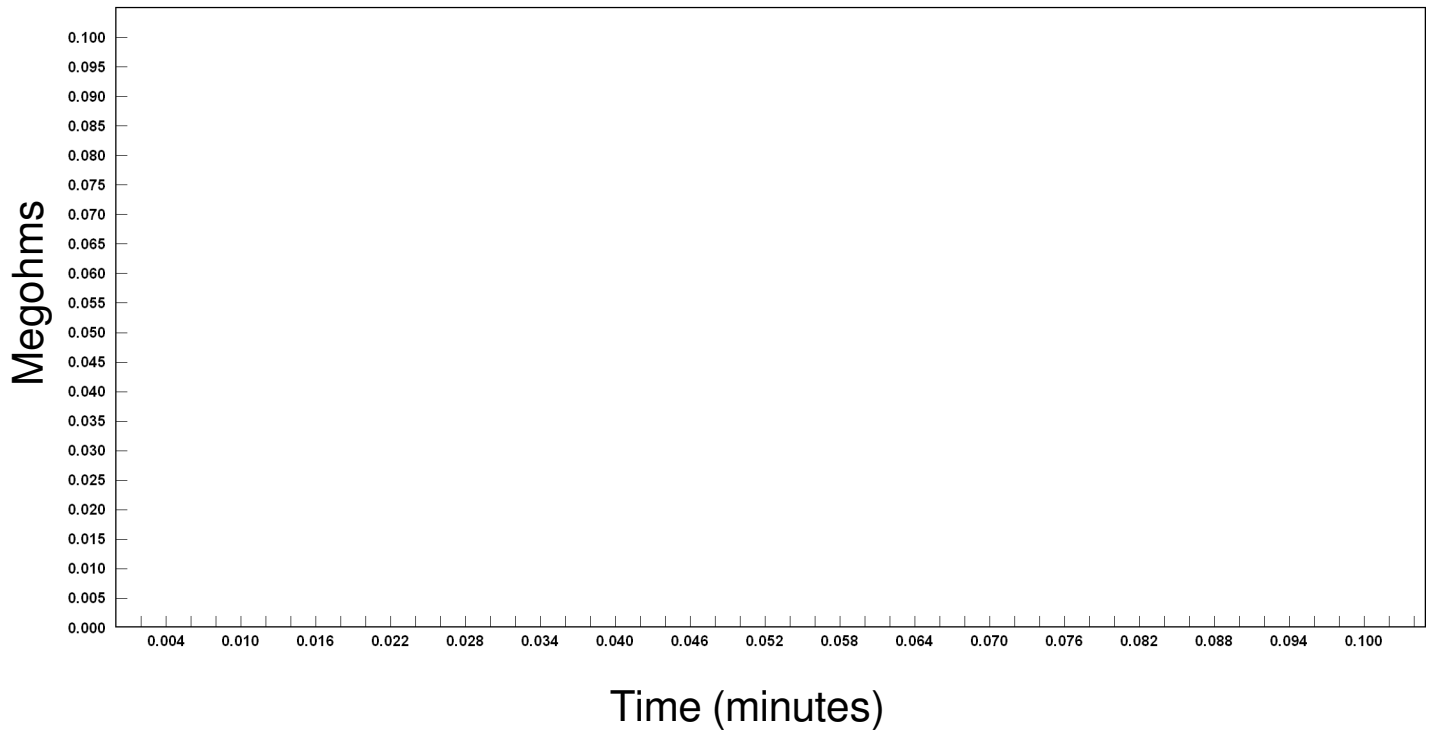
POLARIZATON INDEX = 10 MINUTE RDG. / 1 MINUTE RDG.

COMMENTS: _____
 DEFICIENCIES: _____

EQPT. INVENTORY NO. _____ TESTED BY: _____



Polarization Index



PRIMARY TO SECONDARY: Square
PRIMARY TO GROUND: Circle
SECONDARY TO GROUND: Triangle



SWITCHGEAR CHECK LIST



CUSTOMER SAMPLE FORMS COMPANY PAGE _____
 ADDRESS _____ JOB # FORMS-ALL
 USER SAMPLE FORMS COMPANY
 OWNER REPRESENTATIVE _____ TELEPHONE _____
 DATE 5/7/2008 TEMPERATURE _____ °F HUMIDITY _____ % EQPT. LOCATION _____
 SUBSTATION GENERATORS POSITION GENERAL

NAMEPLATE DATA

MANUFACTURER _____ SERIAL NO. _____ DWGS. _____
 VOLTAGE CLASS _____ TYPE _____
 CONSISTING OF: _____ TOTAL BREAKERS _____ TOTAL INSTRUMENTS _____ TOTAL RELAYS _____ MOLDED CASE BREAKERS _____
 EXTERNAL CONDITION: GOOD FAIR POOR

| | |
|--|--|
| GENERAL INSPECTION OF EXTERIOR OF EQUIPMENT | |
| INSPECT FOR DAMAGE, BENT OR TWISTED DOORS | |
| INSPECT DOOR HANDLES, LOCKING BARS AND MECHANISM | |
| CHECK DOOR INTERLOCKS FOR PROPER OPERATION | |
| CHECK CONTROL KNOBS AND SWITCHES FOR FREEDOM OF MOVEMENT AND CONTACT CONDITION | |
| INSPECT FOR BROKEN INSTRUMENTS, RELAY COVER(S) AND GLASS | |
| INSPECT FOR PROPER GROUNDING OF EQUIPMENT | |
| INSPECT BUS AND SUPPORT INSULATORS | |
| CLEAN BUS INSULATORS | |
| DIELECTRIC TEST OF BUS WORK AND POTHEADS | |
| INSPECT CONTROL AND METERING TRANSFORMERS | |
| INSPECT AND CHECK INSTRUMENTS | |
| CHECK CONDITION OF WIRING AND TERMINAL CONNECTIONS | |
| REMOVE DRAWOUT BREAKERS | |
| CHECK RAILS, GUIDES, ROLLERS AND SHUTTER MECHANISM | |

| | |
|--|--|
| INSPECT BREAKER AND CELL CONTACTS | |
| VACUUM AND CLEAN INTERIOR OF CUBICLES | |
| LUBRICATE DRAWOUT ASSEMBLY | |
| CHECK CELL INTERLOCKS AND AUXILIARY CONTACT ASSEMBLIES | |
| PERFORM BREAKER INSPECTION AND TEST | |
| INSPECT AND PERFORM INSULATION TEST OF POWER CABLE / BUS TO GROUND | |
| RESTORE CONTROL POWER TO SWITCHGEAR | |
| CHECK RELAYS FOR POSITIVE TRIPPING | |
| TEST ANNUNCIATOR-ALARM FOR TARGET | |
| CHECK PANEL LIGHTS FOR OPERATION: BURNED OUT / MISSING BULBS AND LAMP COVERS | |
| OPERATE CLOSE AND TRIP BREAKER CONTROLS | |
| CHECK AUTOMATIC TRANSFER OPERATION | |
| MAKE FINAL VISUAL INSPECTION: REMOVE LEADS, TOOLS, ETC. | |
| NOTE AND REPORT ANY UNMARKED CIRCUITS | |
| REPORT UNSAFE CONDITIONS | |

COMMENTS:

| |
|--|
| |
|--|

 DEFICIENCIES:

| |
|--|
| |
|--|

EQPT. INVENTORY NO. _____ TESTED BY: _____



ANNUAL ENGINE-GENERATOR PREVENTATIVE MAINTENANCE REPORT



CUSTOMER SAMPLE FORMS COMPANY PAGE _____
 ADDRESS _____ JOB # FORMS-ALL
 USER SAMPLE FORMS COMPANY
 OWNER REPRESENTATIVE _____ TELEPHONE _____
 DATE 5/7/2008 TEMPERATURE _____ °F HUMIDITY _____ % EQPT. LOCATION _____
 SUBSTATION GENERATORS POSITION GENERAL

GENERATOR NAMEPLATE DATA:

GENERATOR MFR. _____ MODEL NO. _____ S/N _____
 kVA _____ kW _____ VOLTS _____ AMPS _____ PHASE _____ CYCLES _____ RPM _____
 GENERATOR CONTROL MFR. _____ MODEL NO. _____ S/N _____
 GOVERNOR MFR. _____ MODEL NO. _____ S/N _____
 VOLTAGE REG. MFR. _____ MODEL NO. _____ S/N _____

ENGINE NAMEPLATE DATA:

MANUFACTURER _____ SERIAL NUMBER _____

| | | |
|--------------------------|--|--|
| <input type="checkbox"/> | CHECK RADIATOR CORE FOR PROPER AIR FLOW | |
| <input type="checkbox"/> | CHECK COOLANT FOR ANTI-FREEZE PROTECTION AND INHIBITOR STRENGTH | |
| <input type="checkbox"/> | CHECK COOLANT LEVEL, WITH ENGINE COOL AND WITH ENGINE HOT | |
| <input type="checkbox"/> | CHECK RADIATOR CAP AND SEAL | |
| <input type="checkbox"/> | VERIFY THAT JACKET WATER HEATER IS OPERATING PROPERLY | |
| <input type="checkbox"/> | CHECK FOR COOLANT LEAKS BEFORE, DURING AND AFTER RUNNING ENGINE | |
| <input type="checkbox"/> | CHECK LUBE OIL LEVEL WITH ENGINE OFF AND WITH ENGINE RUNNING | |
| <input type="checkbox"/> | CHECK FAN BELT TENSION | |
| <input type="checkbox"/> | CHECK CONDITION OF HOSES AND HOSE CLAMPS | |
| <input type="checkbox"/> | CHECK CONDITION OF FLEXIBLE FUEL LINES | |
| <input type="checkbox"/> | CHECK FUEL SYSTEM FOR LEAKS, AND CHECK DAY TANK PUMPS AND ALARMS | |
| <input type="checkbox"/> | CHECK BATTERY SPECIFIC GRAVITY AND ELECTROLYTE LEVEL - RECORD | |
| <input type="checkbox"/> | CHECK BATTERY VOLTAGE AND BATTERY CHARGER RATE - RECORD | |
| <input type="checkbox"/> | CHECK BATTERY CABLES AND CONNECTIONS | |
| <input type="checkbox"/> | CHECK EXHAUST SYSTEM, INCLUDING FLEXIBLE COUPLINGS, DRAIN MOISTURE TRAPS | |
| <input type="checkbox"/> | CHECK AIR CLEANER ELEMENTS, SEALS, AND AIR CLEANER INDICATOR | |
| <input type="checkbox"/> | CHECK TERMINAL STRIP CONNECTIONS | |
| <input type="checkbox"/> | CHECK POWER FEEDER CONNECTIONS AT THE GENERATOR | |
| <input type="checkbox"/> | CHECK INSULATION ON GENERATOR LEADS - PERFORM MEGGAR TEST - RECORD | |
| <input type="checkbox"/> | CHECK FOR LOOSE RELAYS IN CONTROL PANEL | |
| <input type="checkbox"/> | CHECK GOVERNOR OIL LEVEL (IF APPLICABLE) | |
| <input type="checkbox"/> | CHECK GOVERNOR AND LINKAGE FOR PROPER OPERATION | |



ANNUAL ENGINE-GENERATOR PREVENTATIVE MAINTENANCE REPORT



PAGE _____

| | | |
|--------------------------|---|--|
| <input type="checkbox"/> | CHECK AIR GAP ON GENERATOR | |
| <input type="checkbox"/> | CHECK COLLECTOR RING AND BRUSHES | |
| <input type="checkbox"/> | CHECK FOR OIL AND DIRT BUILD UP IN GENERATOR | |
| <input type="checkbox"/> | CHECK GENERATOR INSTALLATION FOR LOOSE BOLTS, ETC. | |
| <input type="checkbox"/> | CHECK CRANK TERMINATION TIME AND CRANKING VOLTAGE DROP - RECORD | |
| <input type="checkbox"/> | CHECK ALL ENGINE INSTRUMENTS FOR PROPER OPERATION | |
| <input type="checkbox"/> | CHECK FOR ABNORMAL NOISE OR VIBRATION | |
| <input type="checkbox"/> | CHECK FOR PROPER LOUVER OPERATION, (WHERE APPLICABLE) | |
| <input type="checkbox"/> | VERIFY PROPER OPERATION OF ALL PRE-ALARMS AND SHUTDOWN DEVICES | |
| <input type="checkbox"/> | CHECK CRANKSHAFT BLOWBY, AND CLEAN CRANKCASE BREATHER | |
| <input type="checkbox"/> | VERIFY PROPER VOLTAGE AND FREQUENCY - RECORD | |
| <input type="checkbox"/> | DRAIN WATER AND SEDIMENT FROM DAY TANK | |
| <input type="checkbox"/> | LUBRICATE GENERATOR BEARING AND FAN PULLEY | |
| <input type="checkbox"/> | CLEAN PRIMARY FILTER | |
| <input type="checkbox"/> | TAKE OIL SAMPLE FOR DETAILED OIL ANALYSIS | |
| <input type="checkbox"/> | CLEAN THE PRIMARY FUEL FILTER SCREEN AND REPLACE THE FUEL FILTER ELEMENTS | |
| <input type="checkbox"/> | CHANGE LUBE OIL AND FILTERS | |
| <input type="checkbox"/> | PERFORM A FOUR HOUR LOADBANK TEST AT FULL LOAD | |
| <input type="checkbox"/> | CHECK THAT ALL SWITCHES ARE LEFT IN PROPER MODE | |
| <input type="checkbox"/> | | |
| <input type="checkbox"/> | | |
| <input type="checkbox"/> | | |

CORRECTIVE ACTION TAKEN:

ADDITIONAL SERVICES REQUIRED:

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. _____

TESTED BY: _____



BI-ANNUAL ENGINE-GENERATOR PREVENTIVE MAINTENANCE REPORT



CUSTOMER SAMPLE FORMS COMPANY PAGE _____
 ADDRESS _____ JOB # FORMS-ALL
 USER SAMPLE FORMS COMPANY
 OWNER REPRESENTATIVE _____ TELEPHONE _____
 DATE 5/7/2008 TEMPERATURE _____ °F HUMIDITY _____ % EQPT. LOCATION _____
 SUBSTATION _____ GENERATORS _____ POSITION _____ GENERAL _____

GENERATOR NAMEPLATE DATA:

GENERATOR MFR. _____ MODEL NO. _____ S/N _____
 KVA _____ KW _____ VOLTS _____ AMPS _____ PHASE _____ CYCLES _____ RPM _____
 GENERATOR CONTROL MFR. _____ MODEL NO. _____ S/N _____
 GOVERNOR MFR. _____ MODEL NO. _____ S/N _____
 VOLTAGE REG. MFR. _____ MODEL NO. _____ S/N _____

ENGINE NAMEPLATE DATA:

MANUFACTURER _____ SERIAL NUMBER _____

| AIR CLEANER | LOW | OK | HIGH | COMMENTS |
|-----------------------|-----------------------|-----------------------|-----------------------|----------|
| AIR CLEANER ELEMENTS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| AIR CLEANER SEALS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| AIR CLEANER INDICATOR | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |

| BATTERY SYSTEM | LOW | OK | HIGH | COMMENTS |
|-------------------------------|-----------------------|-----------------------|-----------------------|----------|
| CABLES AND CONNECTIONS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| CHARGER RATE | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| CRANKING VOLTAGE DROP | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| ELECTROLYTE LEVEL | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| OVERALL VOLTAGE | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| SPECIFIC GRAVITY OF EACH CELL | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |

| LUBRICATION SYSTEM | LOW | OK | HIGH | COMMENTS |
|---|-----------------------|-----------------------|-----------------------|----------|
| CLEAN CRANKCASE BREATHER VENT | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| CLEAN PRIMARY FILTER | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| CRANKCASE BLOWBY | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| CRANKCASE OIL LEVEL WITH ENGINE OFF | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| CRANKCASE OIL LEVEL WITH ENGINE RUNNING | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| GOVERNOR OIL LEVEL | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| LUBRICATE GENERATOR BEARING & FAN PULLY | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| SAMPLE CRANKCASE OIL FOR LABORATORY TESTING | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |



BI-ANNUAL ENGINE-GENERATOR PREVENTIVE MAINTENANCE REPORT



PAGE _____

| EXHAUST & MECHANICAL SYSTEM | LOW | OK | HIGH | COMMENTS |
|-------------------------------------|-----------------------|-----------------------|-----------------------|----------|
| ABNORMAL NOISE OR VIBRATION | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| DRAIN MOISTURE TRAPS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| EXTERIOR OPENING COVER | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| FLEXIBLE COUPLINGS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| INSULATING MATERIALS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| LOOSE BOLTS ON STRUCTURAL MOUNTINGS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| SUPPORTS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |

| FUEL SYSTEM | LOW | OK | HIGH | COMMENTS |
|------------------------------------|-----------------------|-----------------------|-----------------------|----------|
| CONDITION OF HOSES & PIPE FITTINGS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| DAY TANK ALARMS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| DAY TANK LEAKS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| DAY TANK PUMP | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| DRAIN WATER & SEDIMENT | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |

| GENERATOR | LOW | OK | HIGH | COMMENTS |
|----------------------------------|-----------------------|-----------------------|-----------------------|----------|
| AIR GAP | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| COLLECTOR BRUSHES | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| COLLECTOR RINGS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| DIRT / OIL / GREASE ACCUMULATION | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| POWER FEEDER CONNECTIONS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| POWER FEEDER INSULATION TESTS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |

| GOVERNOR | LOW | OK | HIGH | COMMENTS |
|--------------------|-----------------------|-----------------------|-----------------------|----------|
| GOVERNOR OPERATION | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| LINKAGE OPERATION | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| OIL LEVEL | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |

| RADIATOR | LOW | OK | HIGH | COMMENTS |
|---|-----------------------|-----------------------|-----------------------|----------|
| AIR FLOW THROUGH CORE | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| ANTIFREEZE & INHIBITOR STRENGTH | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| CAP & SEAL | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| COOLANT LEVEL - ENGINE HOT | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| COOLANT LEVEL - ENGINE COOL | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| FAN BELT CONDITION | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| FAN BELT TENSION | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| JACKET WATER HEATER OPERATING TEMPERATURE | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| LEAKS - BEFORE RUNNING | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| LEAKS - AFTER RUNNING | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| LOUVER OPERATION | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |



BI-ANNUAL ENGINE-GENERATOR PREVENTIVE MAINTENANCE REPORT



PAGE _____

| WIRING - CONTROL | LOW | OK | HIGH | COMMENTS |
|------------------------------------|-----------------------|-----------------------|-----------------------|----------|
| AMMETER OPERATION | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| AUTOMATIC / MANUAL MODE | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| CONTROL RELAYS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| CRANK TERMINATION RESET | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| CRANK TERMINATION TIME | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| FREQUENCY METER OPERATION | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| OIL PRESSURE | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| PROPER OPERATION OF ALL PRE-ALARMS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| PROPER OPERATION OF ALL SHUTDOWNS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| TEMPERATURE GAUGE | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| TERMINAL STRIP CONNECTIONS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| VOLTMETER OPERATION | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |

CORRECTIVE ACTION COMPLETED:

ADDITIONAL SERVICES REQUIRED:

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. _____

TESTED BY: _____



GENERATOR



CUSTOMER SAMPLE FORMS COMPANY PAGE _____
 ADDRESS _____ JOB # FORMS-ALL
 USER SAMPLE FORMS COMPANY
 OWNER REPRESENTATIVE _____ TELEPHONE _____
 DATE 5/7/2008 TEMPERATURE _____ °F HUMIDITY _____ % EQPT. LOCATION _____
 SUBSTATION GENERATORS POSITION GENERAL

GENERATOR NAMEPLATE DATA:

MANUFACTURER _____ SERIAL NUMBER _____
 VOLTAGE RATING _____ VOLTS WATTAGE RATING _____ KILOWATTS
 ADDITIONAL INFORMATION: _____

ENGINE NAMEPLATE DATA:

MANUFACTURER _____ SERIAL NUMBER _____
 TYPE DIESEL WATER NATURAL
 ADDITIONAL INFORMATION: _____

MEASURED TEST RESULTS

| TIME (hh:mm:ss) | POWER (KILOWATTS) | PHASE VOLTAGES | | | LINE CURRENTS | | | FRE- QUENCY (HERTZ) | | |
|--------------------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|---------------------------|--|--|
| | | A - B (VOLTS) | B - C (VOLTS) | C - A (VOLTS) | phA (AMPERES) | phB (AMPERES) | phC (AMPERES) | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

GENERATOR INSTRUMENT PANEL RESULTS

| TIME (hh:mm:ss) | POWER (KILOWATTS) | PHASE VOLTAGES | | | LINE CURRENTS | | | FRE- QUENCY (HERTZ) | ENGINE HOURS | FUEL PRESS. (LBS.) | WATER TEMP. (°C) | OIL PRESS. (LBS.) |
|--------------------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|---------------------------|-----------------|--------------------------|--------------------------|-------------------------|
| | | A - B (VOLTS) | B - C (VOLTS) | C - A (VOLTS) | phA (AMPERES) | phB (AMPERES) | phC (AMPERES) | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

COMMENTS:
 DEFICIENCIES:

EQPT. INVENTORY NO. _____ TESTED BY: _____



GENERATOR TIP UP TEST



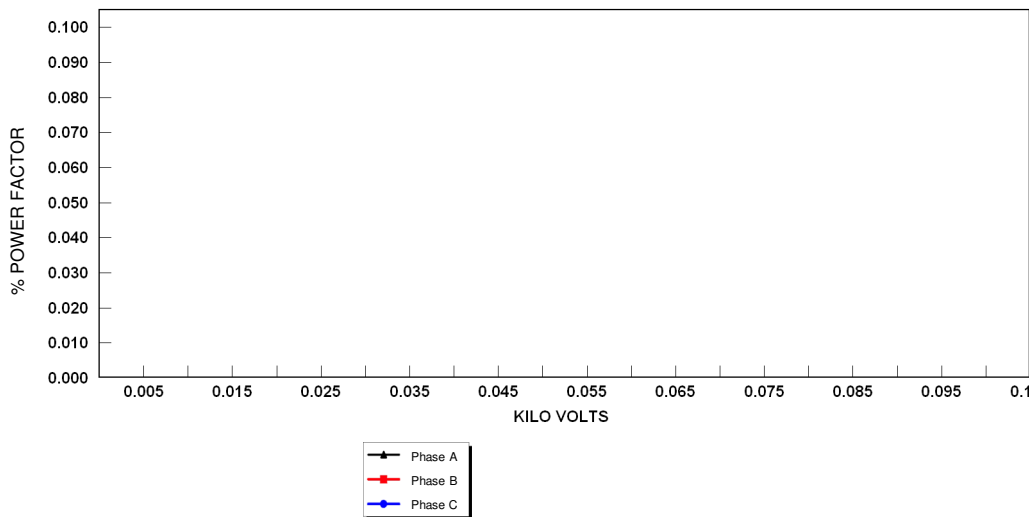
CUSTOMER SAMPLE FORMS COMPANY PAGE _____
 ADDRESS _____ JOB # FORMS-ALL
 USER SAMPLE FORMS COMPANY
 OWNER REPRESENTATIVE _____ TELEPHONE _____
 DATE 5/7/2008 TEMPERATURE _____ °F HUMIDITY _____ % EQPT. LOCATION _____
 SUBSTATION GENERATORS POSITION GENERAL

GENERATOR NAMEPLATE DATA:

GENERATOR MFR. _____ MODEL NO. _____ S/N _____
 KVA _____ KW _____ VOLTS (KV) _____ AMPS _____ PHASE _____ FREQUENCY _____ RPM _____
 GENERATOR CONTROL MFR. _____ MODEL NO. _____ S/N _____
 GOVERNOR MFR. _____ YEAR MANUF. _____ TYPE CHOOSE
 VOLTAGE REG. MFR. _____ FRAME TYPE _____ OTHER _____

Use T1, T2, T3**GROUNDING TIP UP TEST**

| | TEST ID | CIRCUIT DESCRIPTION | kV % | TEST kV | CAPACITANCE C (PF) | % P. F. | | EQUIV | | % TIP UP |
|------------|---------|---------------------|------|---------|--------------------|---------|--|-------|-------|----------|
| | | | | | | MEAS. | | mA | WATTS | |
| TERMINAL 1 | 1 | T1 GND T2, T3 | 25 | 2 | | | | | | |
| | 2 | T1 GND T2, T3 | 50 | 4 | | | | | | |
| | 3 | T1 GND T2, T3 | 75 | 6 | | | | | | |
| | 4 | T1 GND T2, T3 | 100 | 8 | | | | | | |
| TERMINAL 2 | 5 | T2 GND T1, T3 | 25 | 2 | | | | | | |
| | 6 | T2 GND T1, T3 | 50 | 4 | | | | | | |
| | 7 | T2 GND T1, T3 | 75 | 6 | | | | | | |
| | 8 | T2 GND T1, T3 | 100 | 8 | | | | | | |
| TERMINAL 3 | 9 | T3 GND T1, T2 | 25 | 2 | | | | | | |
| | 10 | T3 GND T1, T2 | 50 | 4 | | | | | | |
| | 11 | T3 GND T1, T2 | 75 | 6 | | | | | | |
| | 12 | T3 GND T1, T2 | 100 | 8 | | | | | | |



COMMENTS: _____
 DEFICIENCIES: _____

EQPT. INVENTORY NO. _____ TESTED BY: _____



GENERATOR TIP UP TEST



PAGE _____

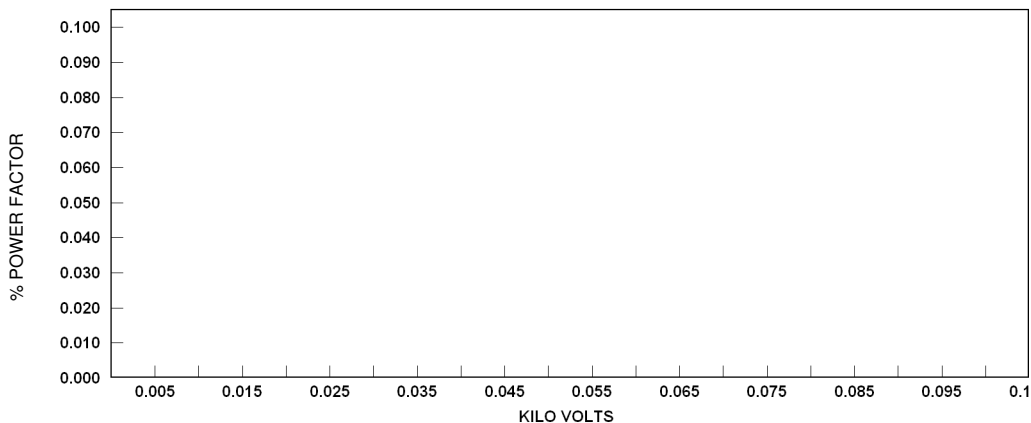
GENERATOR NAMEPLATE DATA:

| | | |
|--|-------------------|---------------------------|
| GENERATOR MFR. _____ | MODEL NO. _____ | S/N _____ |
| KVA _____ KW _____ VOLTS (KV) _____ AMPS _____ | PHASE _____ | FREQUENCY _____ RPM _____ |
| GENERATOR CONTROL MFR. _____ | MODEL NO. _____ | S/N _____ |
| GOVERNOR MFR. _____ | YEAR MANUF. _____ | TYPE <u>CHOOSE</u> |
| VOLTAGE REG. MFR. _____ | FRAME TYPE _____ | OTHER _____ |

Use T1, T2, T3

UNGROUNDING TIP UP TEST

| | TEST ID | CIRCUIT DESCRIPTION | KV % | TEST KV | CAPACITANCE C (PF) | % P. F. | | % TIP UP |
|------------|---------|---------------------|------|---------|--------------------|----------|-------|----------|
| | | | | | | MEASURED | EQUIV | |
| | | | | | | mA | WATTS | |
| TERMINAL 1 | 13 | T1 GND T2, T3 | 25 | 2 | | | | |
| | 14 | T1 GND T2, T3 | 50 | 4 | | | | |
| | 15 | T1 GND T2, T3 | 75 | 6 | | | | |
| | 16 | T1 GND T2, T3 | 100 | 8 | | | | |
| TERMINAL 2 | 17 | T2 GND T1, T3 | 25 | 2 | | | | |
| | 18 | T2 GND T1, T3 | 50 | 4 | | | | |
| | 19 | T2 GND T1, T3 | 75 | 6 | | | | |
| | 20 | T2 GND T1, T3 | 100 | 8 | | | | |
| TERMINAL 3 | 21 | T3 GND T1, T2 | 25 | 2 | | | | |
| | 22 | T3 GND T1, T2 | 50 | 4 | | | | |
| | 23 | T3 GND T1, T2 | 75 | 6 | | | | |
| | 24 | T3 GND T1, T2 | 100 | 8 | | | | |



▲ Phase A
 ■ Phase B
 ● Phase C