ENGINE GENERATOR SET INSPECTION CHECKLIST

For use of this form see TM 5-694; the proponent agency is COE.

SECTION A - CUSTOMER DATA

1. PLANT/BUILDING	2. LOCATION	3. JOB NUMBER
4. EQUIPMENT	5. CIRCUIT DESIGNATION	6. DATE *(YYYYMMDD)*
7. TEST EQUIPMENT TYPE/BRAND AND CALIBRATION DATE		8. TESTED BY

SECTION B - EQUIPMENT DATA

9. MANUFACTURER	10. STYLES/S.O.	11. VOLTAGE RATING	12. kW RATING
13. CIRCUIT BREAKER SIZE/INTERRUPTING RATING		14. WET BULB TEMPERATURE	15. DRY BULB TEMPERATURE

SECTION C - VISUAL AND ELECTRICAL/MECHANICAL INSPECTION

16. CHECK POINT	COND*	NOTES	CHECK POINT	COND*	NOTES
EXTERIOR OF EQUIPMENT			EQUIPMENT IDENTIFICATION		
COMPLETENESS OF ASSEMBLY			BRACING		
EQUIPMENT ROTATION			PROPER PHASE CONNECTIONS		
CHECK OIL LEVEL			REFERENCE DRAWINGS		
CHECK FUEL LEVEL			WORKING CLEARANCE		
PROPER EQUIPMENT GROUNDING			ANCHORAGE		
CHECK METERS/GAUGES			ALL FILTERS AND VENTS CLEAR		
TIGHTNESS OF BOLTED CONNECTIONS			CHECK EQUIPMENT ENVIRONMENTAL CLASSIFICATION		
VERIFY GOVERNOR AND REGULATOR			CHECK FOR PROVISIONS OF SPILL CONTAINER		
CHECK VIBRATION			CONTROL SYSTEM		
CHECK BATTERIES			CHECK FUEL FILTER		
CHECK RADIATOR FLUID			CHECK ALARM INDICATORS: PROPER COLOR FOR EACH FUNCTION		
PROPER SYSTEM GROUND					

SECTION D - ELECTRICAL TESTS

17. INSULATION RESISTANCE	A-GRD	B-GRD	C-GRD	A-B	B-C	C-A
@ V						
POLARIZATION INDEX RATIO = 10 MINUTE/1 MINUTE						
DC OVERPOTENTIAL TEST @ V						

18. NOTES

1. PERFORM 5 MEASUREMENTS AT ONE MINUTE INTERVALS.
2. DC HIPOT MEASUREMENTS SHOULD BEGIN AT 20% OF MAXIMUM TEST VOLTAGE AND INCREASE IN EQUAL INTERVALS.

MAX DC TEST VOLTAGE = R (2 x NAMEPLATE RATING) x 1.6

WHERE R = .8 FOR DC TEST ON INSTALLATION

WHERE R = .6 FOR DC TEST AFTER SERVICE

(TEST MEASUREMENTS SHOULD NOT EXCEED MANUFACTURER'S RECOMMENDATION)

SECTION D - ELECTRICAL TESTS *(Continued)*

19. MEASUREMENT DESCRIPTION	VOLTAGE AND CURRENT MEASUREMENTS										
	VOLTAGE**						CURRENT**				
	A-N	B-N	C-N	A-B	B-C	C-A	A	B	C	N	G

20. LOAD TESTS AS A PERCENTAGE OF GENERATOR RATING

	NO LOAD	25 %	75 %	100 %	110% (PRIME ENGINE ONLY)
A-N					
B-N					
C-N					
A-B					
B-C					
C-A					
A					
B					
C					
N					
G					

21. NOTES

1. VOLTAGE MEASUREMENT TO BE MADE AFTER GENERATOR IS STARTED AND CONNECTED TO LOAD (CAN USE LOAD BANK).

2. DURING COMMISSIONING OF GENERATOR SETS OR ANY EQUIPMENT, A REPRESENTATIVE OF THE MANUFACTURING COMPANY OR SUPPLIER MUST BE PRESENT TO WITNESS AND/OR PERFORM THE TESTS.

3. ENGINE GENERATOR TESTING IS A VERY INTENSIVE PROCESS AND REQUIRES A 10 TO 14 HOUR DAY DEPENDING ON THE EQUIPMENT BEING COMMISSIONED. SUPPLIER/MANUFACTURER NORMALLY SUPPLY GENERATOR TESTING LOAD REQUIREMENTS.

4. VERIFY ALL SYSTEM CHECK POINTS DURING LOAD CHANGES AND RECORD PER SPECIFIED REQUIREMENTS AND/OR EQUIPMENT MANUFACTURER.

5. PERFORM AND RECORD ENGINE MANUFACTURER'S RECOMMENDED CHECKS AND INSPECTIONS.

*CONDITION: A=ACCEPTABLE; R=NEEDS REPAIR, REPLACEMENT OR ADJUSTMENT; C=CORRECTED; NA=NOT APPLICABLE
**NOTE VALUE AND PHASING