Engine Generators
Functional Performance Test

Equipment ID	**[Equipment ID]**
Building	**[Building]**
Location	**[Room]**

System Description

Description:

Operational Assumptions:

Breaker Coordination study is available and includes the generator output breaker(s).

Initial Test		Start Date	End Date	Initials
Results (Check one) ☐ Pass ☐ Fail ☐ Partial Test w/Corrective Actions ☐ Complete Test w/Corrective Actions ☐ Other	Explanation:			

Re-Test 1		Start Date	End Date	Initials
Results (Check one) ☐ Pass ☐ Fail ☐ Partial Test w/Corrective Actions ☐ Complete Test w/Corrective Actions ☐ Other	Explanation:			

Re-Test 2		Start Date	End Date	Initials
Results (Check one) ☐ Pass ☐ Fail ☐ Partial Test w/Corrective Actions ☐ Complete Test w/Corrective Actions ☐ Other	Explanation:			

Deferred/Seasonal Test		Start Date	End Date	Initials
Results (Check one) ☐ Pass ☐ Fail ☐ Partial Test w/Corrective Actions ☐ Complete Test w/Corrective Actions ☐ Other	Explanation:			

Test Participants

Organization	Required	Optional
General Contractor	☐	☐
Mechanical Contractor	☐	☐
Electrical Contractor	☐	☐
TAB Contractor	☐	☐
Controls Contractor	☐	☐
Owner's O&M Personnel	☐	☐

Test Equipment Required (to be provided by the Contractor)

Test Name	Equipment Description
Voltage/Continuity	DVM
Bolted Connection or Contact Resistance	Four-probe Digital Low Resistance Ohmmeter (DLRO)
Insulation Resistance	Battery or line-powered (Hand-crank not acceptable).
Primary Current Injection	Current Injection Test Device rated for 2X the ground fault pickup setting of the breaker
2 and 4 Hour Load Bank Test	Resistive load bank with capacity equal to or greater than rated load. Rated at 2% accuracy for voltage, current and KW.
Phase Rotation	Verify proper phasing
Volt. & Freq. Regulation	Computer to record voltage and frequency from the output of the generator control panel.
Decibel	Measure sound pressure
Back Pressure	Manometer with a scale of greater than 40" water
Bolt Torque	Calibrated torque wrench

System Readiness Summary Checklist

Description	Yes	No	Date
System Ready for Test	☐	☐	
Required Personnel Available	☐	☐	
Required Tools/Test Equipment/Supplies Available	☐	☐	
Required Safety Equipment Available	☐	☐	

Functional Performance Test -- **(Verify all components are ready before energizing or operating the system.)**

The Commissioning Authority will make and document any changes/addition/deletions to this test procedure required by current system conditions (i.e. weather, system load, utility availability, etc.).

R = Retest (Check (✓) retest required) Y= Checked and Passed
C = Corrected (Check (✓) when correction verified) N = Not Passed

ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
PRE-TEST VISUAL MECHANICAL INSPECTION						
1. Safe conditions (protective gear in-place, available & procedures observed)		☐	☐		☐	☐
Record issues				Issue Log Item:		
				Initial	Date	
2. Verify that the Engine, Generator, Battery, and Battery Charger nameplate data matches shop drawings and construction documents.	kW: _____.	☐	☐	Record results in data table.	☐	☐
	Rating: _____.	☐	☐		☐	☐
	Freq.: _____.	☐	☐		☐	☐
	Phase/Wire:_____.	☐	☐		☐	☐
	Power Factor: _____.	☐	☐		☐	☐
	Voltage Output: _____.	☐	☐		☐	☐
Record issues				Issue Log Item:		
				Initial	Date	

ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
3. Verify generator circuit breaker settings.	Circuit breaker size and phase: _____.	☐	☐	Record results in Data Table.	☐	☐
	Ground fault protection is disabled.	☐	☐	Ground fault indication and alarm is recommended	☐	☐
	Circuit breaker is set per the coordination study.	☐	☐		☐	☐
Record issues				Issue Log Item:		
				Initial	Date	
4. Inspect physical and mechanical condition.	No visible damage to generator or enclosure.	☐	☐		☐	☐
	Engine generator exterior is clean and dry.	☐	☐		☐	☐
	Generator control panel interior is clean and dry.	☐	☐		☐	☐
	Generator control panel mounted at an accessible height.	☐	☐		☐	☐
	Vibration isolation is installed at engine and at radiator.	☐	☐		☐	☐
	All external connections are made with flexible connections.	☐	☐		☐	☐
	Verify remote monitoring wiring is connected and labeled.	☐	☐		☐	☐
	Verify control wiring is connected and labeled.	☐	☐		☐	☐
	Feeder cable/bus routing doesn't obstruct access for operation or maintenance.	☐	☐		☐	☐
	Control wiring harness(es) does not rub against vibrating or moving parts.	☐	☐		☐	☐
Record issues				Issue Log Item:		
				Initial	Date	

ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
5. Verify anchoring	Anchor bolts are provided in locations shown on manufacturer's drawings.	☐	☐		☐	☐
Record issues				Issue Log Item:		
				Initial	Date	
6. Verify equipment grounding	Verify ground rod is installed with connection to engine generator frame.	☐	☐		☐	☐
	Generator neutral bonded to ground with conductor sized per NEC 250-20.	☐	☐		☐	☐
	Measured diameter of bare copper conductor corresponds to diameter of specified conductors.	☐	☐		☐	☐
	Ground strap from engine to frame.	☐	☐		☐	☐
	Ground strap from generator enclosure to frame.	☐	☐		☐	☐
	Ground bus provided in termination cabinet with properly terminated ground conductors.	☐	☐		☐	☐
Record issues				Issue Log Item:		
				Initial	Date	
7. Verify lube oil levels are within manufacturer's recommended limits	Lube oil level is filled to proper level.	☐	☐		☐	☐
Record issues				Issue Log Item:		
				Initial	Date	

ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
8. Verify fuel system installation and integrity	Day tank is full of fuel (90% for diesel).	☐	☐		☐	☐
	Fuel level in day tank matches fuel gauge.	☐	☐		☐	☐
	Remote fueling station is installed and operating properly.	☐	☐		☐	☐
	There are not clearance issues with the remote fueling station.	☐	☐		☐	☐
	All alarms are operating properly from remote fueling station to Building Automation System (BAS).	☐	☐		☐	☐
	Fuel system is free of leaks.	☐	☐		☐	☐
	Flexible fuel lines are installed at engine.	☐	☐		☐	☐
Record issues				Issue Log Item:		
				Initial	Date	
9. Verify cooling system installation and integrity	Coolant level is filled to proper level.	☐	☐	Record radiator name plate date in data table.	☐	☐
	Verify coolant system freeze protection level.	☐	☐		☐	☐
	Cooling system is free from leaks.	☐	☐		☐	☐
	Flexible coolant lines are installed between engine and radiator.	☐	☐		☐	☐
Record issues				Issue Log Item:		
				Initial	Date	

ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
10. Verify exhaust system installation and integrity	Exhaust system, silencer and flexible connector installed and supported.	☐	☐		☐	☐
	Exhaust system expansion is not transferred to engine components such as turbocharger.	☐	☐		☐	☐
	Silencer is equipped with condensate drain plug and turn valve.	☐	☐		☐	☐
	Exhaust system is equipped with rain cap.	☐	☐		☐	☐
	Exhaust system is properly insulated within building.	☐	☐		☐	☐
	Exhaust system has at least 9” clearance from combustible materials.	☐	☐		☐	☐
Record issues				Issue Log Item:		
				Initial	Date	
ELECTRICAL INTEGRITY						
11. Verify operation of coolant line heater.	Verify that valves to the water jacket heater are open.	☐	☐	Record results in Data Table. Record supply voltages and amperage with	☐	☐
	Verify thermostats switch at their setpoint temperatures (110°F).	☐	☐		☐	☐

ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
	Verify pump runs continuously independent of heater operation.	☐	☐	heaters and pump in operation. Calculate heater and pump wattage based on line voltage and current. Verify wattage calculated is same as shop drawing data. Manufacturer's Specifications: Heater: Watts _____ Volts _____ Phase _____ Pump: Watts _____ Volts _____ Phase _____	☐	☐
Record issues				Issue Log Item:		
				Initial / Date		
12. Verify operation of battery and starting system.	Loss of Power Alarm is operable.	☐	☐	Record results in Data Table. Record cell voltages for all cells with terminals available, total battery charging voltage and charging current. Manufacturer's	☐	☐
	Low Battery Volt Alarms at: 18.6V-25.7V.	☐	☐		☐	☐
	High Battery Volt Alarms at: 26.9V-36.3V.	☐	☐		☐	☐
	Power On led in on.	☐	☐		☐	☐

ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
	Battery Heater Pad: 120VAC input.	☐	☐	Specifications: Nom. Batt. Voltage: _____ Rec. Float Charge Voltage: _____ Float Voltage: _____ Equalize Voltage: _____ Max over float Ampere Taper (Max to Min): _____ Nominal Output Voltage: _____ Input Voltage: _____ Ambient Temp: -40ºF to 122ºF	☐	☐
Record issues				Issue Log Item:		
				Initial / Date		
13. Verify operation of generator space heaters	Space heaters operate when generator is not running and not operating while generator is running.	☐	☐	Record results in Data Table. Record supply voltages and amperage with heater in operation. Calculate heater wattage based on line voltage and current. Verify wattage calculated is same as shop drawing data. Manufacturer's Specifications: Heater: Watts _____ Volts _____ Phase _____	☐	☐
Record issues				Issue Log Item:		

ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
				Initial / Date		
14. Perform an insulation resistance test at 1000 VDC on generator windings.	Minimum insulation resistance value is 100 Megohoms.	☐	☐	Record results in Data Table. Take reading at 1 minute. Take reading at 10 minutes. Record ambient temperature and relative humidity. Test Name: Insulation Resistance. Reference Equip. Table	☐	☐
Record issues				Issue Log Item: Initial / Date		
15. With the breaker in the closed position, measure the contact resistance of each phase of the primary circuit.	Readings are within 50% of the lowest value.	☐	☐	Record results in Data Table. Test Name: Contact Resistance Reference Equip. Table	☐	☐
Record issues				Issue Log Item: Initial / Date		
16. Perform an insulation resistance test on the Generator Circuit Breaker at 1000VDC, phase-to-phase and phase to ground, connected to the bus in the closed position, in accordance with NETA Table 100.1.	Minimum insulation resistance shall be 100 Megohms.	☐	☐	Record results in Data Table. Test for one minute in accordance with NETA Table 100.1. Test Name: Insulation Resistance Reference Equip. Table	☐	☐
Record issues				Issue Log Item: Initial / Date		

ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
17. Test the Long Time Delay (LTD) (seconds) and Long Time Pickup current (LDPU) (amperes) setting of the breaker, by using primary current injection.	Long delay current pick up and time delay per coordination study.	☐	☐	Record results in Data Table. Test Name: Primary Current Inject. Reference Equip. Table	☐	☐
Record issues				Issue Log Item:		
				Initial	Date	
18. Test the Short Time Delay (STD) (seconds) and Short Time Pickup current (SDPU) (amperes) setting of the breaker, by using primary current injection.	Short delay current pick up and time delay per coordination study.	☐	☐	Record results in Data Table. Test Name: Primary Current Inject. Reference Equip. Table	☐	☐
Record issues				Issue Log Item:		
				Initial	Date	
19. Test the Instantaneous Time Delay (ITD) (seconds) and Instantaneous Time Pickup current (INSTPU) (amperes) setting of the breaker, by using primary current injection.	Instantaneous pick up per coordination study.	☐	☐	Record results in Data Table. Test Name: Primary Current Inject. Reference Equip. Table	☐	☐
Record issues				Issue Log Item:		
				Initial	Date	

	ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
20.	Test the Ground Fault Delay (GFD) (seconds) and Ground Fault Pickup current (GFPU) (amperes) setting of the breaker, by using primary current injection.	Instantaneous pick up per coordination study.	☐	☐	Record results in Data Table. Test Name: Primary Current Inject. Reference Equip. Table	☐	☐
	Record issues				Issue Log Item:		
					Initial	Date	
	ALARMS AND CONTROL PANEL TEST						
21.	Verify control wiring between generator and ATS are correctly terminated.	Terminations match shop drawings.	☐	☐	Note: this step applies to field land terminations only	☐	☐
	Record issues				Issue Log Item:		
					Initial	Date	
22.	Record all setpoints at Engine Generator Control Panel.		☐	☐	Manufacturer's checklist can be attached to this form in lieu of recording	☐	☐
	Record issues				Issue Log Item:		
					Initial	Date	
23.	Verify all warning/pre-alarms per manufacturer's instructions and verify operation and local annunciation at Engine Generator Control Panel.	Overcrank.	☐	☐	1-13 NFPA 110 Spec Section 16231	☐	☐
		Low Water Temp.	☐	☐		☐	☐
		High Water Temp.	☐	☐		☐	☐
		Low Oil Pressure.	☐	☐		☐	☐
		Overspeed.	☐	☐		☐	☐
		Low Coolant Level.	☐	☐		☐	☐

ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
	EPS Supplying Load.	☐	☐		☐	☐
	Control switch not in Auto.	☐	☐		☐	☐
	High Battery Voltage.	☐	☐		☐	☐
	Low Battery Voltage.	☐	☐		☐	☐
	Battery Charger AC Failure.	☐	☐		☐	☐
	Lamp Test.	☐	☐		☐	☐
	Contacts for local and remote common alarm.	☐	☐		☐	☐
Record issues				Issue Log Item:		
				Initial	Date	
24. Verify all shutdown conditions per manufacturer's instructions and verify operation and local annunciation at Engine Generator Control Panel.	Overcrank.	☐	☐	1-5 NFPA 110 Spec Section 16231	☐	☐
	High Water Temp.	☐	☐		☐	☐
	Low Oil Pressure.	☐	☐		☐	☐
	Overspeed.	☐	☐		☐	☐
	Low Coolant Level.	☐	☐		☐	☐
Record issues				Issue Log Item:		
				Initial	Date	
25. Verify remote audible annunciation of all status, warning/pre-alarm, and shutdown conditions per manufacturer's instructions.	Overcrank.	☐	☐	1-9 NFPA 110 Spec Section 16231	☐	☐
	Low Water Temp.	☐	☐		☐	☐
	High Water Temp.	☐	☐		☐	☐
	Low Oil Pressure.	☐	☐		☐	☐
	Overspeed.	☐	☐		☐	☐
	Low Coolant Level.	☐	☐		☐	☐
	Control switch not in Auto.	☐	☐		☐	☐

ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
	Contacts for local and remote common alarm.	☐	☐		☐	☐
	Audible alarm silencing switch.	☐	☐		☐	☐
Record issues				Issue Log Item:		
				Initial / Date		
26. Verify installation of remote E-Stop	Located outside of generator room door. Near each exit/entrance to genset room. Located locally on the genset package.	☐	☐		☐	☐
	Cover not damaged, scratched, or broken.	☐	☐		☐	☐
Record issues				Issue Log Item:	☐	☐
				Initial / Date		
27. Verify remote annunciation of engine conditions at building automation system	Annunciator panel lights & alarms function by initiating test switch.	☐	☐		☐	☐
Record issues				Issue Log Item:	☐	☐
				Initial / Date		
28. With generator in a "cold start" condition, conduct a load performance test, by initiating a NORMAL failure and transfer of ATS's for time specified in the remarks column.	Engine starts and runs.	☐	☐	Record results in Data Table. Load generator for a maximum of 2 hrs using available building load and/or a load bank During test, verify exhaust, coolant, and fuel system is functioning	☐	☐
	Air intake louvers open fully.	☐	☐		☐	☐
	Exhaust damper opens fully.	☐	☐		☐	☐
	Fuel is not leaking.	☐	☐		☐	☐
	Coolant is not leaking.	☐	☐		☐	☐
	Lube oil is not leaking.	☐	☐		☐	☐

ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
	Exhaust system expansion is not transferred to engine system components.	☐	☐	properly. Test Name: 2 Hour Load Bank Test Reference Equip. Table	☐	☐
	Exhaust system is not leaking.	☐	☐		☐	☐
Record issues				Issue Log Item:	☐	☐
				Initial / Date		
29. Restore normal sources to ATS's (or turn off load bank) and transfer ALL load off of generator and allow to cool down for 5 minutes	Generator runs in cool down mode for 5 min.	☐	☐	Test Name: 2 Hour Load Bank Test Reference Equip. Table	☐	☐
Record issues				Issue Log Item:	☐	☐
				Initial / Date		
30. Disconnect emergency feeders to ATS and connect load bank directly to load side of generator		☐	☐		☐	☐
Record issues				Issue Log Item:	☐	☐
				Initial / Date		
31. With a load bank connected to the load side terminals of the generator,	Engine starts and runs.	☐	☐	Test Name: 4 Hour Load Bank Test Reference Equip. Table	☐	☐
	Air intake louvers open fully.	☐	☐		☐	☐
	Exhaust damper opens fully.	☐	☐		☐	☐

ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
start generator at local control panel with engine control switch	Fuel is not leaking.	☐	☐		☐	☐
	Coolant is not leaking.	☐	☐		☐	☐
	Lube oil is not leaking.	☐	☐		☐	☐
	Exhaust system expansion is not transferred to engine system components.	☐	☐		☐	☐
	Exhaust system is not leaking.	☐	☐		☐	☐
Record issues				Issue Log Item:	☐	☐
				Initial / Date		
32. Conduct a load performance test utilizing a load bank to achieve 100% rated load of generator for time specified in the remarks column.		☐	☐	Record results in Data Table. Load generator at 50% for 15 min. Load generator at 75% for 15 min. Load generator at 100% for 3.5 hrs During test, verify exhaust, coolant, and fuel system is functioning properly. Test Name: 4 Hour Load Bank Test Reference Equip. Table	☐	☐
Record issues				Issue Log Item:	☐	☐
				Initial / Date		

	ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
33.	In conjunction with load performance test, verify voltage regulation by recording RMS voltage while increasing load on generator.	Voltage regulation is ±1%.	☐	☐	Record results in Data Table Record voltage at no load. Record voltage at 50% load. Record voltage at 75% load. Record voltage at 100% load. Calculate voltage regulation percentage. Test Name: Volt. & Freq. Regulation Reference Equip. Table	☐	☐
	Record issues				Issue Log Item:	☐	☐
					Initial / Date		
34.	In conjunction with load performance test, verify frequency regulation by recording frequency while increasing load on generator.	Frequency regulation is ±1%	☐	☐	Record results in Data Table Record frequency at no load. Record frequency at 50% load. Record frequency at 75% load. Record frequency at 100% load. Calculate voltage regulation percentage. Test Name: Volt. & Freq. Regulation Reference Equip. Table	☐	☐
	Record issues				Issue Log Item:	☐	☐
					Initial / Date		

	ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
35.	During load performance test, verify engine operation is within normal operating limits.		☐	☐	Manufacturer's Specifications: RPM @ 60Hz: 1800 RPM Coolant Amb. Temp: 190ºF	☐	☐
	Record issues				Issue Log Item:		
					Initial / Date		
36.	During load performance test, verify correct phase rotation.	Phase rotation at generator matches NORMAL power source.	☐	☐	A(U), B(V), C(W) Test Name: Phase Rotation Reference Equip. Table	☐	☐
	Record issues				Issue Log Item:		
					Initial / Date		
37.	During step 3, while generator is running at 100% load, measure sound level.	Measured sound pressure level in rooms directly adjoining the generator room, as well as above and below, if applicable.	☐	☐	Record results in Data Table. Test Name: Sound Level Reference Equip. Table	☐	☐
	Record issues				Issue Log Item:		
					Initial / Date		
38.	While generator is running at 100% load, conduct Exhaust-System Back Pressure Test	Maximum backpressure at full-rated load is within manufacturer's written maximum allowable limits of 6.7 kPa or 26.9" H20 for the engine.	☐	☐	Record results in Data Table. Connect test instrumentation to exhaust line close to engine exhaust manifold. Test Name: Back Pressure Test Reference Equip. Table	☐	☐
	Record issues				Issue Log Item:		
					Initial / Date		
39.	Decrease load to 0% and allow the generator to cool down for 5 minutes	Generator cools down.	☐	☐	Test Name: 4 Hour Load Bank Test	☐	☐
		No leaks from any system are found.	☐	☐		☐	☐

ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
Record issues				Issue Log Item:		
				Initial	Date	
40. After the cool down, once the prime mover has reached rated voltage and frequency, transfer full rated load onto the engine generator in a single block.	Engine continues to run without shutdown or overspeed trip and recovers to steady state voltage and frequency ranges within 5 seconds.	☐	☐	Test Name: Block Load Test	☐	☐
Record issues				Issue Log Item:		
				Initial	Date	
41. Decrease load to 0% and shutdown generator with local E-Stop.	Generator shuts down.	☐	☐		☐	☐
	Remote annunciator alarms with E-Stop.	☐	☐		☐	☐
Record issues				Issue Log Item:		
				Initial	Date	
42. Disconnect fuel solenoid and simulate start to engine.	Engine cycle cranks a minimum of three 15-second cranking cycles with 15 seconds between cycles.	☐	☐		☐	☐
	At completion of third cycle engine stops cranking and “overcrank” shutdown alarm is annunciated locally and remotely.	☐	☐		☐	☐
Record issues				Issue Log Item:		
				Initial	Date	

ACTION	REQUIRED REACTION	Y (✓)	N (✓)	COMMENTS	R (✓)	C (✓)
FINAL INSPECTION						
43. After testing is performed on the generator, verify tightness of field landed feeder terminations.	Primary feeder cable connections properly torqued and marked.	☐	☐	Record results in Data Table. Bolted torque should comply with NETA Table 100.12 unless manufacturer specified values are listed on the equipment. Secondary distribution feeder connections are not included in the test. Test Name: Bolt Torque Reference Equip. Table	☐	☐
Record issues				Issue Log Item:		
				Initial / Date		
44. Refill fuel tanks and verify 90% fuel levels	Fuel level indicator verifies 90% fuel level in day tank.	☐	☐		☐	☐
	Fuel level indicator verifies 90% fuel level in storage tank.	☐	☐		☐	☐
Record issues				Issue Log Item:		
				Initial / Date		

NAMEPLATE DATA

Engine Nameplate (May be found in multiple nameplate locations)

Parameter	Data
Equipment ID	
Manufacturer	
Serial Number	
Model Number	
Date Manufactured	
Horsepower	
kW	

Generator Nameplate

Parameter	Data
Manufacturer	
Serial Number	
Model Number	
Date Manufactured	
Volts	
Amps	
KVA	
Frequency	
RPM	
KW	
PF	
Insulation Class:	

Battery Nameplate

Parameter	Data
Manufacturer	
Serial Number	
Model Number	
Quantity	
Volts	
Cold Cranking Amps	

Battery Charger Nameplate

Parameter	Data
Manufacturer	
Serial Number	
Model Number	
Input Amps	
Input Volts	
Output Amps	
Output Volts	

Circuit Breaker Name Plate Data

Parameter	Data
Manufacturer:	
Type/Model:	
Serial Number:	
Frame Size/Rating	
Interrupting Rating	
Voltage Rating	

Radiator Nameplate

Parameter	Data
Manufacturer	
Serial Number	
Model Number	
Date Manufactured	

Coolant Pump(s) & Heater(s)

Designation	Volts	Amps	Watts

Battery System

Cell Volts	Charging Volts	Charging Amps

Space Heater(s)

Designation	Voltage	Amperage	Wattage

Test Equipment Used:

Test Name	Manufacturer	Model Number	Serial Number	Calibration(Date)

Insulation Resistance (1000 VDC)

Generator Windings	A-B	B-C	C-A	A-G	B-G	C-G
1 Minute (Meg Ohms)						
10 Minutes (Meg Ohms)						
Circuit Breaker						
1 Minute (Meg Ohms)						

Circuit Breaker Contact Resistance

Phase	A	B	C
(Micro Ohms)			

Current Injection

Function	Actual Set.	Test Setting	Test Point	Nominal Val.	A	B	C
LTD							
LDPU							
STD							
SDPU							
INSTPU							
GFD							
GFPU							

2 Hour Load Bank Test

Crank Time Until Prime Mover Start and Runs	
Time Required for Prime Mover to Come Up to Operating Speed	
Voltage Overshoot	
Frequency Overshoot	
Time Required to Achieve Steady State Operation	

Time		Load	RPM	Freq.	Amps	Volts	kW	Oil Press	Oil Temp	Exhaust Temp	Cool. Temp	Fuel Level	Batt. Chrg Rate
0 min		100%											
5 min		100%											
10 min		100%											
15 min		100%											
30 min		100%											
45 min		100%											
1 hour		100%											
1 hour 15 min		100%											
1 hour 30 min		100%											
1 hour 45 min		100%											
2 hour		100%											

4 Hour Load Bank Test

Time		Load	RPM	Freq.	Amps	Volts	kW	Oil Press	Oil Temp	Exhaust Temp	Cool. Temp	Fuel Level	Batt. Chrg Rate
0 min		50%											
5 min		50%											
10 min		50%											
15 min		75%											
30 min		75%											
45 min		100%											
1 hour		100%											
1 hour 15 min		100%											
1 hour 30 min		100%											
1 hour 45 min		100%											
2 hour		100%											
2 hour 15 min		100%											
2 hour 30 min		100%											
2 hour 45 min		100%											
3 hour		100%											
3 hour 15 min		100%											
3 hour 30 min		100%											
3 hour 45 min		100%											
4 hour		100%											

Voltage & Frequency Regulation

Function	50% Load	75% Load	100% Load
Voltage (V)			
Frequency (hz)			

Phase Rotation – (Circle Phase Rotation)

Normal Power	**A B C**	**A C B**
Emergency Power	**A B C**	**A C B**

Sound Level

Location	Decibel (DB)

Back Pressure Test

System Exhaust Pressure	Location

Block Load Test

Recovery Time: _____

Bolt Torque (Newton Meters or Foot Pounds)

Bolt/Lug	A	B	C	N	G
Normal					
Emergency Lugs					

Final Sign-Off

Commissioning Agent	Printed Name	Initials	Date

CONTRACTOR	PRINTED NAME	INITIALS	DATE
General Contractor (GC)			
Mechanical Contractor (MC)			
Electrical Contractor (EC)			
TAB Contractor (TAB)			
Controls Contractor (CC)			
Owner's O&M Personnel			