



INSPECTION FORM
4.16kV / 12.47kV POWER CABLE

Cable ID: _____

High Potential Very Low Frequency (MLF) Test	Test Preparation:		Source: <input type="checkbox"/> Disconnected <input type="checkbox"/> Connected with Source Isolated		Cable Dest. / Load: <input type="checkbox"/> Disconnected <input type="checkbox"/> Connected with Load Isolated		Note: Approval of City's Representative is required, prior to leaving cables connected during the test.		
	Frequency: 0.1 Hz		Waveform: sinusoidal		Ground all conductors not under test for each reading.				
	Test Voltage (RMS)	Elapsed Time (min)	Peak Leakage Current (uA)			Test Summary			
			A-GND	B-GND	C-GND	<input type="checkbox"/> Test Passed <input type="checkbox"/> Test Inconclusive Further Investigation Required. <input type="checkbox"/> Test Failed			
	7000V	0							
	7000V	1							
	7000V	2							
	7000V	3							
	7000V	4							
	7000V	5							
	7000V	6							
	7000V	7							
	7000V	8							
	7000V	9							
	7000V	10							
7000V	11								
7000V	12								
7000V	13								
7000V	14								
7000V	15								
Comments:									



**INSPECTION FORM
4.16kV / 12.47kV POWER CABLE**

Cable ID: _____

Dissipation Factor (Tangent Delta) Test	Frequency: 0.1 Hz Waveform: sinusoidal										
	Test Voltage (RMS)	A			B			C			
		Tan Delta	Capacitance (nF)	Current (μA)	Tan Delta	Capacitance (nF)	Current (μA)	Tan Delta	Capacitance (nF)	Current (μA)	
	2400V										
	4800V										
	Difference										
Test Summary		Comments:									
<input type="checkbox"/> Test Passed <input type="checkbox"/> Test Inconclusive Further Investigation Required. <input type="checkbox"/> Test Failed											

Connection Resistance	Termination	Connection Resistance ($\mu\Omega$) - As Left			Torque Check
		A	B	C	
	Source				<input type="checkbox"/> OK
	Dest. / Load				<input type="checkbox"/> OK
Comments:					

Final Analysis	Cable Returned to Service:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
	Monitoring / Further Inspection Required:	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Repair / Replacement Required:	<input type="checkbox"/> Yes <input type="checkbox"/> No	

	Company	Name	Signature	Date (yyyy/mm/dd)
Performed By				
Checked By				

Note: The person performing the check is responsible for ensuring that the data is transcribed from the handwritten form correctly, and that the analysis results are correct.



INSPECTION FORM GROUNDING SYSTEM

ID:

Project	Facility:	Project Name:
	Area :	Bid Opportunity:

Visual Inspection	Connection to Ground Electrode is Visible: <input type="checkbox"/> Yes <input type="checkbox"/> No	Facility Contains a Main Ground Bus: <input type="checkbox"/> Yes <input type="checkbox"/> No
	Connecting Conductor: Size: Qty:	Torque Ground Connections: <input type="checkbox"/> Yes <input type="checkbox"/> No
	Visual signs of Corrosion: <input type="checkbox"/> Yes <input type="checkbox"/> No	
	Soil Type:	Soil Condition: <input type="checkbox"/> Dry <input type="checkbox"/> Damp <input type="checkbox"/> Wet
	Comments:	

Fall Of Potential Test #1	Date of Test:	Time of Test:				
	Weather and Temperature:	Terrain:				
	Grounding System Connection Point:	UTM GPS Coordinate: E N				
	Current Probe Injection Point:	UTM GPS Coordinate: E N				
	Test Conditions:	Test Layout:				
	Voltage Probe Distance (meters)	UTM GPS Coordinate:	Test Current (mA)	Test Voltage (mV)	Resistance @ Hz (Ω)	Resistance @ Hz (Ω)
		E N				
		E N				
		E N				
		E N				
		E N				
		E N				
		E N				
	E N					
Comments:						



INSPECTION FORM GROUNDING SYSTEM

ID:

Fall Of Potential Test #2	Date of Test:		Time of Test:				
	Weather and Temperature:		Terrain:				
	Grounding System Connection Point:		UTM Coordinate:	GPS Coordinate:	E	N	
	Current Probe Injection Point:		UTM Coordinate:	GPS Coordinate:	E	N	
	Test Conditions:			Test Layout:			
	Voltage Probe Distance (meters)	UTM GPS Coordinate:		Test Current (mA)	Test Voltage (mV)	Resistance @ Hz (Ω)	Resistance @ Hz (Ω)
		E	N				
		E	N				
		E	N				
		E	N				
		E	N				
		E	N				
		E	N				
Comments:							



INSPECTION FORM GROUNDING SYSTEM


ID: _____

Resistance Checks (Ductor Test)	Point A	Point B	Resistance (mΩ)	Test Summary <input type="checkbox"/> Test Passed <input type="checkbox"/> Test Inconclusive Further Investigation Required. <input type="checkbox"/> Test Failed
	Facility Ground Electrode	Main Ground Bus		
	Facility Ground Electrode	4160V Switchgear GND Bus		
	Facility Ground Electrode	System Neutral		
	Facility Ground Electrode	600V Switchgear GND Bus		
	Facility Ground Electrode	MCC : GND Bus		
	Facility Ground Electrode	MCC : GND Bus		
	Facility Ground Electrode	Other :		
	Facility Ground Electrode	Other :		
	Facility Ground Electrode	Other :		
Comments: _____				

Final Analysis	Monitoring / Inspection Required: <input type="checkbox"/> Yes <input type="checkbox"/> No	Comments: _____
	Repair / Replacement Required: <input type="checkbox"/> Yes <input type="checkbox"/> No	

	Company	Name	Signature	Date (yyyy/mm/dd)
Performed By				
Checked By				

Note: The person performing the check is responsible for ensuring that the data is transcribed from the handwritten form correctly, and that the analysis results are correct.

	INSPECTION FORM SWITCHGEAR, 4.16kV / 12.47kV		Page 1 of 2
			ID:
Project	Facility:		Project Name:
	Area :		Bid Opportunity:

Switchgear Data	ID:		Location:		# of Cells:	
	Manufacturer:			Type:	Serial #:	
	Rated Voltage:	V	Current Rating:	A	Withstand Rating:	A

Visual Inspection / Cleaning	Identification Tag Installed: <input type="checkbox"/> Yes <input type="checkbox"/> No		Visual Signs of Overheating: <input type="checkbox"/> Yes <input type="checkbox"/> No	
	Visual signs of Moisture: <input type="checkbox"/> Yes <input type="checkbox"/> No		Visual Signs of Corona: <input type="checkbox"/> Yes <input type="checkbox"/> No	
	Fuse/Breaker Sizes Match Drawings: <input type="checkbox"/> Yes <input type="checkbox"/> No		PT and CT ratios match drawings: <input type="checkbox"/> Yes <input type="checkbox"/> No	
	Elevation Drawings Correct: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cables Supported Appropriately: <input type="checkbox"/> Yes <input type="checkbox"/> No	
	Cleanliness (As Found): <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor		Insulators Condition: <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor	
	Connections: <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor		Electro/Mechanical Interlock Systems: <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor	
	Ground Connection: <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor		Vents/Filters: <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor	
	Doors Mechanical: <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor			
	Cell Fit and Alignment: <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor			
	Required Clearances are Met: <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor			
	Indicating mechanisms: <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor		Unit Cleaned: <input type="checkbox"/> Yes	Photograph Taken: <input type="checkbox"/> Yes

Insulation Resistance Test (Buswork)	Test Preparation: Source: <input type="checkbox"/> Disconnected <input type="checkbox"/> Connected with Source Isolated Cable Dest. / Load: <input type="checkbox"/> Disconnected <input type="checkbox"/> Connected with Load Isolated Note: Approval of City's Representative is required, prior to leaving cables connected during the test.				
	Test Voltage	Insulation Resistance (MΩ) Phase To GND			Temperature: °C
		A	B	C	
	2500 V				
	Test Voltage	Insulation Resistance (MΩ) Phase To Phase			
		A - B	B - C	A - C	
2500 V					
Comments:					



**INSPECTION FORM
SWITCHGEAR, 4.16kV / 12.47kV**

ID:

Ground Resistance	Point A	Point B	Resistance (μΩ)	Test Summary <input type="checkbox"/> Test Passed <input type="checkbox"/> Test Inconclusive Further Investigation Required. <input type="checkbox"/> Test Failed
	Switchgear GND Bus	Facility Ground Electrode		
	Switchgear GND Bus	Switchgear Enclosure		
	Switchgear GND Bus	System Neutral		
Comments:				

Connection Resistance	To	From	Resistance (mΩ)			Test Summary <input type="checkbox"/> Test Passed <input type="checkbox"/> Test Inconclusive Further Investigation Required. <input type="checkbox"/> Test Failed
			A	B	C	
Comments:						

High Potential Test	Test Preparation: <input type="checkbox"/> Disconnected <input type="checkbox"/> Connected with Source Isolated		Note: Approval of City's Representative is required, prior to leaving cables connected during the test.		
	Peak DC Test Voltage (1 minute duration)	Test Summary (mA)			Test Summary <input type="checkbox"/> Test Passed <input type="checkbox"/> Test Inconclusive Further Investigation Required. <input type="checkbox"/> Test Failed
		A	B	C	
	12 kV				
Comments:					

Final Analysis	Returned to Service:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
	Monitoring / Inspection Required:	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Repair / Replacement Required:	<input type="checkbox"/> Yes <input type="checkbox"/> No	

	Company	Name	Signature	Date (yyyy/mm/dd)
Performed By				
Checked By				

Note: The person performing the check is responsible for ensuring that the data is transcribed from the handwritten form correctly, and that the analysis results are correct.