


		INSPECTION FORM POWER CABLE < 1000V			Page 1 of 1 Cable ID:		
Project	Facility:			Project Name:			
	Area :			Bid Opportunity:			
Cable Data	Source:			Dest. / Load:			
	Manufacturer:		Type:		Conductor: <input type="checkbox"/> Copper <input type="checkbox"/> Aluminum		
	No. of Conductors:	Size: <input type="checkbox"/> AWG <input type="checkbox"/> MCM	Length: m		<input type="checkbox"/> Measured <input type="checkbox"/> Previous Data <input type="checkbox"/> Jacket Markings <input type="checkbox"/> TDR		
	Rated Voltage: V	Operating Voltage: V	Date Installed:				
	Installation: <input type="checkbox"/> Cable Tray <input type="checkbox"/> EMT <input type="checkbox"/> Alum. Conduit <input type="checkbox"/> Direct Buried		<input type="checkbox"/> Strapped <input type="checkbox"/> Steel Conduit <input type="checkbox"/> PVC Conduit <input type="checkbox"/> Underground Duct		Other:		
Visual Inspection	Physical Damage on Exposed Ends: <input type="checkbox"/> Yes <input type="checkbox"/> No			Cable Identification Tag Installed: <input type="checkbox"/> Yes <input type="checkbox"/> No			
	Visual Signs of Overheating: <input type="checkbox"/> Yes <input type="checkbox"/> No			Cable Supported Appropriately: <input type="checkbox"/> Yes <input type="checkbox"/> No			
	Bend Radius Acceptable: <input type="checkbox"/> Yes <input type="checkbox"/> No			Comments:			
Insulation Resistance Test	Test Preparation: <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.		
	Cable Temperature: °C		Temperature Correction Factor for 20°C:		Ground all conductors not under test for each reading.		
	Test Voltage	Insulation Resistance (MΩ)				Test Summary <input type="checkbox"/> Test Passed <input type="checkbox"/> Test Inconclusive Further Investigation Required. <input type="checkbox"/> Test Failed	
				A-GND	B-GND		
	V	Reading					
	Corrected to 20°C						
Utilize 1000VDC Test Voltage for 600V rated cables, 500VDC for cables rated <= 300V.							
Comments:							
Connection Resistance	Note: Torque check required for all cables. Connection Resistance Test required for cables 4/0 AWG or larger.						
	Termination	Connection Resistance (μΩ) - As Left				Torque Check	
		A	B	C	N		
	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							

	INSPECTION FORM MOLDED CASE CIRCUIT BREAKER, < 1000V	Page 1 of 2 ID:
Project	Facility: _____ Area : _____	Project Name: _____ Bid Opportunity: _____

Breaker Data	Location: _____	Panelboard/MCC: _____	Cell #: _____
	Manufacturer: _____	Type: _____	Serial #: _____
	Rated Voltage: V	Frame Size: A	Trip Unit: _____
	Interrupting Rating: kA	Comments: _____	

Visual Inspection / Cleaning	Breaker Identification Tag Installed: <input type="checkbox"/> Yes <input type="checkbox"/> No	Visual Signs of Overheating: <input type="checkbox"/> Yes <input type="checkbox"/> No
	Cleanliness (As Found): <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor	Cables Supported Appropriately: <input type="checkbox"/> Yes <input type="checkbox"/> No
	Connections: <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor	Electro/Mechanical Interlock: <input type="checkbox"/> N/A <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	Exercise Circuit Breaker: <input type="checkbox"/> Yes
	Door Mechanical: <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor	Other: _____
	Comments: _____	

Breaker Settings	Trip Unit Rating: A	Trip Unit Type: <input type="checkbox"/> None <input type="checkbox"/> Thermal Magnetic <input type="checkbox"/> Electronic <input type="checkbox"/> LI <input type="checkbox"/> LSI <input type="checkbox"/> LSIG				
	Breaker Setting (As Left)	Range	Setpoint	Delay	I²T	
	Long Time	<input type="checkbox"/> Fixed <input type="checkbox"/> Adj.	-	X A = A	sec	<input type="checkbox"/> On <input type="checkbox"/> Off
	Short Time	<input type="checkbox"/> Fixed <input type="checkbox"/> Adj.	-	X A = A	sec	<input type="checkbox"/> On <input type="checkbox"/> Off
	Instantaneous	<input type="checkbox"/> Fixed <input type="checkbox"/> Adj.	-	X A = A	N/A	
	Ground Fault	<input type="checkbox"/> Fixed <input type="checkbox"/> Adj.	-	A	sec	<input type="checkbox"/> On <input type="checkbox"/> Off

Insulation Resistance Test	<i>Perform insulation resistance measurements for breakers >= 250A, or as specified.</i>									
	Temperature: °C	Source: <input type="checkbox"/> Disconnected <input type="checkbox"/> Connected (Source Isolated)						<i>Approval is required, prior to leaving cables connected during the test.</i>		
		Load: <input type="checkbox"/> Disconnected <input type="checkbox"/> Connected (Load Isolated)								
	Test Voltage (VDC)	Insulation Resistance (MΩ)								
		Phase To GND (Breaker Closed)			Phase To Phase (Breaker Closed)			Line to Load (Breaker Open)		
		A	B	C	A - B	B - C	A - C	A	B	C
Test Summary <input type="checkbox"/> Test Passed <input type="checkbox"/> Test Inconclusive. Further Investigation Required. <input type="checkbox"/> Test Failed										
Comments: _____										

Contact Resistance	<i>Perform contact measurements for breakers >= 250A, or as specified.</i>					
	Resistance (μΩ)	A	B	C	Test Summary	
	_____	_____	_____	_____		
Comments: _____				<input type="checkbox"/> Test Passed <input type="checkbox"/> Test Inconclusive Further Investigation Required. <input type="checkbox"/> Test Failed		



INSPECTION FORM
MOLDED CASE CIRCUIT BREAKER, < 1000V


Page 2 of 2

ID:

Final Analysis	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(s) 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 PANELBOARD, LOW VOLTAGE		Page 1 of 2
			ID:
Project	Facility:	Project Name:	
	Area :	Bid Opportunity:	

Panelboard Data	Location:		Fed From:		No. of Circuits:	
	Manufacturer:			Model:	Serial No:	
	Rated Voltage:	V	Current Rating:	A	Withstand Rating:	A
	<input type="checkbox"/> Single Phase		<input type="checkbox"/> 3 Phase, 3 Wire	<input type="checkbox"/> 3 Phase, 4 Wire	Neutral Bonded to Ground	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Main Lugs					
	<input type="checkbox"/> Main Breaker:		Rating:	A	Manufacturer:	Model: Inst. Setting:
	Complete separate inspection form (F-BKR-MC-LV) for main breaker if >= 250A, or has long, short, or ground fault settings.					

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	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	Connections:		<input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor
	Door Mechanical:		<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
	Exercise All Circuit Breakers:		<input type="checkbox"/> Yes <input type="checkbox"/> No	Comments:		

Insulation Resistance Test	Test Preparation:		Source: <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.				Equipment Temperature: °C		
							Temperature Correction Factor to 20°C:			
	Test Voltage	Insulation Resistance (MΩ) Ground all Phases not under test!								Test Summary <input type="checkbox"/> Test Passed <input type="checkbox"/> Test Inconclusive Further Investigation Required. <input type="checkbox"/> Test Failed
		A-GND		B-GND		C-GND		N-GND		
		RDG	20°C	RDG	20°C	RDG	20°C	RDG	20°C	
Test Voltages:		120-300V → 500 VDC Test Voltage				301-600V → 1000 VDC Test Voltage				
Comments:										

Load/Feeder Breakers	Breakers < 100A and Without Inst. Setting					
	<i>List by model of breaker. Multiple breakers of varying ampacity may be listed per line.</i>					
	Type	Manufacturer	Model Series	Interrupting Rating (kA)	Positions/Circuits	Notes
	A					
	B					
	C					
	D					
E						
F						



INSPECTION FORM PANELBOARD, LOW VOLTAGE

ID:

Breakers >= 100A or with Inst. Setting									
<i>List each breaker individually. Complete separate inspection form (F-BKR-MC-LV) for breaker if >= 250A, or has long, short, or ground fault settings.</i>									
Load/Feeder Breakers	ID	Pos.	Manufacturer	Model	Trip Rating (A)	Int. Rating (kA)	Inst. Setting	Separate Form	Notes
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	

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				

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INSPECTION FORM TRANSFORMER, DRY TYPE, LOW VOLTAGE

ID:

Project	Facility:	Project Name:
	Area :	Bid Opportunity:

Transformer Data	KVA:	Phase:	Primary Voltage: V	Secondary Voltage: V						
	Manufacturer:		Type:	Serial Number:						
	Primary Winding: <input type="checkbox"/> Δ <input type="checkbox"/> Y	Secondary Winding: <input type="checkbox"/> Δ <input type="checkbox"/> Y	Impedance: %Z	Temp Rise: °C	K Factor:					
	Winding Material: <input type="checkbox"/> Copper <input type="checkbox"/> Aluminum									
	No Load Tap Changer	Tap Voltage	1	2	3	4	5			

Visual Inspection / Cleaning	Transformer Identification Tag Installed: <input type="checkbox"/> Yes <input type="checkbox"/> No	Visual Signs of Overheating: <input type="checkbox"/> Yes <input type="checkbox"/> No
	Bushings: <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor	Support Insulators: <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor
	Paint: <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor	No Load Tap Changer: <input type="checkbox"/> N/A <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor
	Fans: <input type="checkbox"/> N/A <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor	Fan Controls: <input type="checkbox"/> N/A <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor
	Temp. Gauge: <input type="checkbox"/> N/A <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
	Ground Connection: <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor	Neutral Bonded to Ground: <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No
	Cleanliness (As Found): <input type="checkbox"/> Good <input type="checkbox"/> Acceptable <input type="checkbox"/> Poor	Unit Cleaned: <input type="checkbox"/> Yes <input type="checkbox"/> No Photograph Taken: <input type="checkbox"/> Yes <input type="checkbox"/> No

Operational Inspection	Operational Conditions / Notes:					
	Primary Voltage:	H1:H2: V	H2:H3: V	H3:H1: V	Measured at:	
	Secondary Voltage:	X1:__: V	X2:__: V	X3:__: V	Measured at:	
	Current:	Ph A: A	Ph B: A	Ph C: A	Measured at:	
	Tap Setting:	<input type="checkbox"/> Appears Satisfactory <input type="checkbox"/> Further Monitoring Recommended. <input type="checkbox"/> Recommend Changing Tap.			Tap Setting (As Left):	
	Thermographic Inspection Performed:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Attach report separately	Results:	<input type="checkbox"/> No Issues Found <input type="checkbox"/> Potential Issue Identified.	

Insulation Resistance	Winding	Test Voltage (Vdc)	Resistance (MΩ)		Dielectric Absorption Ratio 60s/30s
			30 sec	60 sec.	
	Primary to Ground, Secondary Guarded				
	Secondary to Ground, Primary Guarded				
	Primary to Secondary, Ground Guarded				



**INSPECTION FORM
TRANSFORMER, DRY TYPE, LOW VOLTAGE**

Page 2 of 2

ID:

Final Analysis	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				

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