W	Vinnipeg						٥v			Page	1 of 1	
					Project I	Name:				Cable ID	:	
Projec	Facility: Area :				-	Bid Opportunity:						
		1										
	Source:					Dest. / L	oad:					
в	Manufact	urer:		Туре	):				Conductor	tor: Copper Caluminum		
Cable Data	No. of Conducto	irs:	Size:		AWG MCM	Leng	h:			easured cket Markings	Previous Data	
Cat	Rated Vo		Operatino Voltage:	9	V	Date	Installe	ed:				
	luit [	] Alum. ( ] PVC C			] Direct Bur ] Undergrou		Other:					
u	Physical I	Damage on Expos	ed Ends:	🗌 Yes	🗌 No	Cable I	dentifi	cation T	ag Installed	:	🗌 Yes 🗌 No	
Visual Inspection	Visual Sig	ons of Overheating	:	🗌 Yes	🗌 No	Cable	Suppor	rted App	propriately:		🗌 Yes 🗌 No	
Bend Radius Acceptable:  Yes No Comments:												
		Source:			Cabla D	oot / Loc	d		No	to: Approval	of Citu's Roproportative	
Test       Source:       Cable Dest. / Load:       Note:       Approval of City's Representation         Preparation:       Disconnected       Disconnected       is required, prior to leaving cables         Connected with Source Isolated       Connected with Load Isolated       connected during the test.								to leaving cables				
Test	Cable Temperature: °C Temperature C Test Voltage V Reading V Corrected to 20°C				orrection F	actor for	20°C:		Ground		rs not under test for each	
tance	Test	Test			ulation Re	sistance	e (MΩ)	)	Te	st Summary		
Resis	Voltage		A-G	ND E	-GND	C-G	ND	N-G		Test Passed		
ation	V	Reading									isive stigation Required.	
nsula	v	Corrected to 20°	С							Test Failed		
-	Utilize 10	00VDC Test Voltag	ge for 600	V rated cabl	es, 500VD	C for cab	les rat	ed <= 3	00V.			
	Comment	ts:										
[	Note: Tor	que check required	d for all ca	ables Conn	ection Resi	istance T	est rec	quired fc	or cables 4/(	AWG or larg	er	
ince	11010. 101	que enconreguner		Connecti								
Connection Resistance	Τe	ermination	A		В				N	То	rque Check	
ion R		Source						-			ОК	
nect	D	est. / Load						1			ОК	
Comments:												
	Oable D				s 🗌 No	Comr	nents:					
Cable Returned to Service: Yes												
Monitoring / Further Inspection Required: Yes						_						
					s 🗌 No							
		Company		Name			Sigr	nature			Date (yyyy/mm/dd)	
Perfor	med By											
Checked By												

Form CBL-LV Rev 00, Created by SNC-Lavalin Inc. M:\113099\4ENG\47ELE\RA - Misc Reports & Forms\Forms\F-CBL-LV.doc

,	Vinni				-		ION FO				Page 1 of	f 2	
,	INOP						L METE	R			ID:		
Project	Faci	lity:				Proje	ect Name						
Pro	Area	a :				Bid Opportunity:							
<b>_</b>		ation:				Cel	II #·					]	
Meter Data		ufacturer:					odel:						
	Ivian					IVIC							
		over Gaske	et:	🗌 Go	ood 🗌 Acceptabl	e 🗆	] Poor	Cover G	lass:		□ Good □	Acceptable Door	
tion	Ge	eneral Con	dition:	🗌 Go	ood 🗌 Acceptabl	e 🗆	] Poor						
Visi	Image: Section of the section of t						] Poor	Unit Clea	aned: 🗌 Y	es			
-	Co	onnections	(as four	nd) 🗌 Go	ood 🗌 Acceptabl	e 🗆	] Poor	Connect Torqued		es			
st ter	Man	ufacturer:					Model:						
Test Meter	Calibration Date: Meter calibration must be within one year, unless otherwise specified.												
		Nomina Valu (V	ue	Phase	Calibrated Met Measuremen (V)		Meter Un (V		Difference (V)		Error (%)	Acceptable (See Specs)	
		0									🗌 Yes 🗌 No		
	ge	0										🗌 Yes 🗌 No	
	Voltage											🗌 Yes 🗌 No	
												🗌 Yes 🗌 No	
												🗌 Yes 🗌 No	
												🗌 Yes 🗌 No	
Accuracy		Nomina Vali (V	ue	Phase	Calibrated Met Measuremen (A)		Meter Un (A		Difference (A)		Error (%)	Acceptable (See Specs)	
Ă				А								🗌 Yes 🗌 No	
	ent	0		В								🗌 Yes 🗌 No	
	Current			С								🗌 Yes 🗌 No	
				А								□ Yes □ No	
				В								🗌 Yes 🗌 No	
				С								🗌 Yes 🗌 No	
	Meas	surements	Applica	ble To:	As-Found	As-L	eft	May	check both boxes	if appl	icable.		
	Unit Calibration Adjusted: Yes No If calibration was adjusted, complete two forms, one for as-found, the other for as- left after calibration.									ms, o	ne for as-fou	nd, the other for as-	

### INSPECTION FORM DIGITAL METER

ID:

Final 1alysis	Returned to Service:	🗌 Yes	🗌 No	Comments:
nal Ilys	Monitoring / Further Inspection Required:	☐ Yes	🗌 No	
٨	Repair / Replacement Required:	🗌 Yes	🗌 No	

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

	٢		INSPE		ORM			Page	1 of 3				
V	Vinnipeg		GROUN					ID:					
ect	Facility:		Pro	ject Name	:			I					
Project	Area :		Bid	Bid Opportunity:									
	Connection to Gro	ound Electrode is		□ No Facility Contains a Main Ground Bus:									
ion	Visible:			No					☐ Yes	□ No			
Visual Inspection	Connecting Cond		Qty:							🗌 No			
al Ins	Visual signs of Co	prrosion:	□ Yes □	□ No									
Visu	Soil Type:				Soil Cond	dition: 🗌 Dry 🗌	Damp 🗌	Wet					
	Comments:												
	Date of Test:				Time of T	Fest:							
	Weather and Tem	nperature:			Terrain:								
	Grounding Syster Connection Point:	n	UTM GI Coordina		E N								
	Current Probe Injection Point:		UTM GI Coordina	PS	Е	Ν							
	Test Conditions:				Test La	yout:							
	Voltage Probe Distance (meters)	UTM GPS Coor	rdinate:		Current nA)	Test Voltage (mV)	Resistand H (Ω)	ce @ Iz	Resista (Ω	Hz			
st #1		E	Ν										
ial Te		E	Ν										
Fall Of Potential Test #1		E	Ν										
Of P		E	Ν										
Fall		E	Ν										
		E	Ν										
		E	Ν										
		E	Ν										
		E	Ν										
		E	Ν										
		E	Ν										
		E	Ν										
	Comments:												

	Date of Test:				Time of T	est:		
	Weather and Tempe	erature:			Terrain:			
	Grounding System Connection Point:		UTM GP Coordinat	S te:	Е	Ν		
	Current Probe Injection Point:		UTM GP Coordinat		E	Ν		
	Test Conditions:				Test La	yout:		
	Voltage Probe Distance (meters)	UTM GPS Coor	dinate:	Test Current (mA)		Test Voltage (mV)	Resistance @ Hz (Ω)	Resistance @ Hz (Ω)
Fall Of Potential Test #2		E	N					
ial Te		E	N					
otenti		E	N					
of P		E	N					
Fall		E	N					
		E	N					
		E	N					
		E	N					
		E	N					
		E	N					
		E	N					
		E	N					
	Comments:		·					

### INSPECTION FORM GROUNDING SYSTEM

ID:

	Point A	Point B	Resistance (mΩ)	Test Summary	
	Facility Ground Electrode	Main Ground Bus		Further Investigati	on Required.
	Facility Ground Electrode	4160V Switchgear GND Bus			
	Facility Ground Electrode	System Neutral			
s	Facility Ground Electrode	600V Switchgear GND Bus			
Check est)	Facility Ground Electrode	MCC : GND Bus			
nce C	Facility Ground Electrode	MCC : GND Bus			
Resistance Checks (Ductor Test)	Facility Ground Electrode	Other :			
Re	Facility Ground Electrode	Other :			
	Facility Ground Electrode	Other :			
				]	
	Comments:				
	Monitoring / Inspection Required	t: Yes No Com	ments:		
ıal ysis					
Final Analysis	Repair / Replacement Required	Yes No			
	Company	Name		Signature	Date (vvvv/mm/dd)

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

	0			11	-	PECTION F	-			Page	1 of 6	
V	Vinnipèg					MCC, 600	V			ID:		
Project	Facility:				F	Project Name	2					
Pro	Area :				E	Bid Opportun	ity:					
	l ti									# - 5 0 - 1		
ta	Location:									# of Cel	IS:	
MCC Data	Manufacturer:					Model:			Serial #:			
MC	Rated Voltage	: V	Main Bus	s Rating	:		A	Main Bus I	Neutral Rating	g:	Α	
	Bus Conducto	r: Copper	Aluminu	m	Curr	rent Withstan	d Rating:	А				
	Identification 7	ag Installed:		ΠY	es	□ No	Visual Signs	of Overhea	ting:		🗌 Yes	🗌 No
	Visual Signs c	f Moisture:		ΠY	es	🗌 No	Visual Signs	of Corona:			🗌 Yes	🗌 No
	Fuse/Breaker	Sizes Match D	rawings:	ΠY	es	□ No	PT and CT ra	atios match	drawings:	🗌 N/A	🗌 Yes	🗌 No
ŋg	Elevation Drav	wings Correct:		ΠY	es	□ No	Cables Supp	orted Appro	opriately:		🗌 Yes	🗌 No
lean	Cleanliness (A	s Found):	Good 🗌		epta	able 🗌 Poor	Insulators Co	ondition:		Good 🗌	Acceptabl	e 🗌 Poor
Visual Inspection / Cleaning	Connections:		Good 🗌		epta	able 🗌 Poor	Electro/Mech Interlock Sys			Good 🗌 /	Acceptable	e 🗌 Poor
spect	Ground Conne	ection:	Good 🗌		eptal	ble 🗌 Poor	Vents/Filters	:		Good 🗌 /	Acceptable	e 🗌 Poor
ial Ins	Doors Mechar	nical:	Good 🗌		eptal	ble 🗌 Poor	Exercise Act	ive Compor	ients:		🗌 Yes	🗌 No
Visu	Cell Fit and Al	ignment:	Good 🗌		eptal	ble 🗌 Poor						
	Required Clea Met:	irances are	Good 🗌		eptal	ble 🗌 Poor						
	Indicating med	chanisms:	Good		eptal	ble 🗌 Poor	Unit Cleaned	l: 🗌 Yes	s Photograp	h Taken:	: D1	/es
	Comments:											
	Type:	Inspect	ion									]
				to breat	orla	opostion from	~					
wer	Main Break	Comple	e appropria	te preak	er in	spection form						

e											
Pow	Disconnect	Complete appropriate disconnect inspection form.									
ming		Visual Inspection:	Good Accep	table 🗌 Poor							
Inco	🗌 Main Lugs	Connections Torqued:	☐ Yes								
		Connection	Α	В	С	Ν					
		Resistance (μΩ) As Left									

# INSPECTION FORM MCC, 600V

	Test Preparatio	Source: Disconne n: Connect Isolated	ed with Source	Cable Dest. / Load: Disconnected Connected with Load Isolated		Note: Approval of City's Representative is required, prior to leaving cables connected during the test.
Test	Temperatu	ıre:	C			
ICe	Test Voltage	Inst	ulation Resistan Phase To Pha			1
sistä vork	(dc)	A - B	B - C	C - A	Test Passed	-
	1000 V					lusive estigation Required.
Insulation (B	Test Voltage	Inst	ulation Resistan Phase To GN	· · ·	Test Failed	
lns	Voltage	A - GND	B - GND	C - GND		
	1000 V					
	Comments	8:				

d Resistance (Ductor Test)	Point A	Point B	Resistance (μΩ)	Test Summary □ Test Passed □ Test Inconclusive
esist	MCC GND Bus	Facility Ground Electrode		Further Investigation Required. ☐ Test Failed
ound R cks (Du	MCC GND Bus	MCC Enclosure		
Ground Checks (I	MCC GND Bus	System Neutral		
	Comments:			

	Visual Inspect Requirements:	G=Good, A=Acceptable, P=Poor Comments are required for all items identified in Poor condition.
	1.	Confirm identification tag / lamacoid is installed.
	2.	Look for visual signs of overheating.
	3.	Inspect and torque connections.
ers	4.	Inspect and test any electro/mechanical interlocks.
Breakers	5.	Confirm disconnect operation.
	6.	Check door mechanical condition.
Feeder	7.	Exercise circuit breaker.
_	8.	Confirm cables are supported and routed appropriately.
	9.	Visually assess the general condition of the installation.
		plete an appropriate Breaker Inspection Form for all breakers with separate adjustable Long and t trip settings, Ground trip settings, or > 250A frame size.
		Continued on next page

# INSPECTION FORM MCC, 600V

Page 3 of 6

						Continued	from previous	page			
	ID	Loc./ Cell	Frame Rating (A)	Trip Rating (A)	Manuf.	Model	Trip Unit Type	Inst Setting	Visual Inspection	Cleaned	Comments
ers											
eake											
Feeder Breakers											
-eed											
-											
	General Comments:										

# INSPECTION FORM MCC, 600V

	Overcurrent Protection Type:	B=Breaker (Thermal Magnetic), M=breaker(Motor Circuit Protector), F=Fuse
	Overload Protection Type:	T=Thermal, SS=Solid State
	Visual Inspect Requirements:	G=Good, A=Acceptable, P=Poor Comments are required for all items identified in Poor condition.
s	1.	Confirm identification tag / lamacoid is installed.
acto	2.	Look for visual signs of overheating.
Contactors	3.	Inspect and torque connections.
<b>~</b>	4.	Inspect and test any electro/mechanical interlocks.
Starters	5.	Confirm disconnect operation.
tor S	6.	Check door mechanical condition.
Motor	7.	Exercise circuit breaker.
	8.	Confirm cables are supported and routed appropriately.
	9.	Visually assess the general condition of the installation.
	Note: Com Star	plete a Motor Starter Inspection Form for all Motor Starters Size 4 or larger, with VFDs, or with Soft ters.

				Overcu	urrent Prof	tection	Contactor		Overload			
	ID	Loc./ Cell	Type	Rating (A)	Manuf.	Model	Size / Rating	Type	Model	Visual Insp.	Cleaned	Comments
Motor Starters / Contactors												
ntac												
/ Co												
rters												
Stal												
lotor												
2												
	General Comments:											

# INSPECTION FORM MCC, 600V

Page 5 of 6

				Overcu	rrent Prof	tection	Contactor		Overload			
	ID	Loc./ Cell	Type	Rating (A)	Manuf.	Model	Size / Rating	Type	Model	Visual Insp.	Cleaned	Comments
ers												
Motor Starters												
tor S												
Mo												
	General Comments:											

# INSPECTION FORM MCC, 600V

ID:

<u>is</u>	Returned to Service:	🗌 Yes	🗌 No	Comments:
Final	Monitoring / Inspection Required:	🗌 Yes	🗌 No	
Ā	Repair / Replacement Required:	🗌 Yes	🗌 No	

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

#### INSPECTION FORM MOTOR SOFT STARTER, 600V

Page 1 of 3

ID:

ject	Facility:
Pro	Area :

Project Name:

Bid Opportunity:

	Load:						Starte	er Loca	ation:							Cell #:		
	Soft	Manufactu	urer:			I	1	Mode	1:				Serial #	:				
	Starter:	Size:				Rate Volta			,	V	Currer Rating		A		Control Voltage:		Ņ	v
		E Fused	Disc.	Rat	Rating:			Fuse Siz		ze:	A	Fuse Mf	g.					
	Circuit Protection:												Model:					
		Breake	er	Rat	Rating:		Δ		nst. A Setting:		А	Manufacturer: Model:						
ata	_	Г			/anufa	acture	۶r.					Model:						
Starter Data	Bypass Contactor:		IEC N/A	-	NEMA Size:					EC Rati		mouon				4		
Start									1		ng.	A 🗌 AC-3 🗌 AC-4						
	Bypass Overload Protection:	☐ Therm		Clas	ss:		)		etting		А	Manufac	turer:					
		□ Not Ap				□ 30 □ Ui	) nknowi		ating:			Model:						
	Capacitor			N N	/lanuf	acture	turer:			Model:								
	Contactor:	<b>J</b>	] IEC ] N/A	NEMA Size					I	EC Rati	ng:	I	A 🗌	AC-3	3 🗆 A	C-4		
	Control Power Transformer: Size: VA						Sec. V	/oltag	je:	V	Primar	y Fuse:	A	A Se	condary	Fuse:		А
	Current Tra	I				Туре	e:											
	1			0														
Motor Data	ID:						Size: k				kW / HP			Volta	age:			V
M	Full Load An	nps:	AS	Servio	ce Fa	ctor:	□ 1. □ 1.		Other	:								
	Starter Ident	ification Ta	a Install	ed.			Ves		<u> </u>	Visual	Signs	of Overhe	atina.			ΠY	es [	∃ No
			0		) a a d	_			-		•		aung.			_	_	
ning	Cleanliness	(AS Found	):	ЦG	5000		ceptab		Poor		ort Insu				Good 🗌	Accep		
Clea	Connections	6		G	Good	🗌 Ac	ceptab	ole 🗌	Poor	Interlo	o/Mech ock:	anical			Good 🗌	Accep	table [	] Poor
ion /	Ground Con	nection	I	🗌 Go	ood [		ceptab	le 🗌	Poor	Conta	ctor Co	ondition:			Good 🗌	Accep	table [	] Poor
spect	Door Mecha	nical	I	🗌 Go	ood [		ceptab	le 🗌	Poor	Conta	ct Aligr	nment:			Good 🗌	Accep	table [	] Poor
Visual Inspection / Cleaning	Verify O/L element is correctly sized for the load:									Exerci	se Circ	uit Break	er/MCP/D	iscon	inect			🗌 Yes
Vis	Cables Supp	ported App	ropriately	y:				Yes [	🗌 No	Unit Cleaned:			1:	🗌 Ye	s			
	Comments:																	

٩	
Winnipe	g

### INSPECTION FORM MOTOR SOFT STARTER, 600V

Page 2 of 3

S	Test	А	В	с	Test Summary					
Contact / Pole Measurements	Bypass Contactor Contact Resistance ( $\mu\Omega$ )				Test Passed     Test Inconclusiv	-				
leasur	Capacitor Contactor Contact Resistance (μΩ)				Further Investig	ation Required.				
ole N	Disconnect Resistance (μΩ	2)								
act / F	Main Fuse Resistance (μΩ	2)								
Conta	Capacitor Fuse Resistance (	μΩ)								
•	Comments:									
		tor: D Open Disc	Dest. / Load: connected inected with Load	prior to		presentative is required, ected during the test.				
	WARNING: DISCONNECT TO TEST.	ALL POWER CABLES	POWER CABLES FROM SOFT STARTER MODULE AND ALL CONTROL POWER FUSES							
	Test	Voltage	In	sulation Resistar	nce (MΩ)	Ground all phases not				
		0	Α	В	С	under test!				
<b>Fest</b>	Disconnect Line to GND	1000 VDC								
nsulation Resistance Test	Disconnect Load to GND	1000 VDC								
Resist	Disconnect Line to Load	1000 VDC				T. ( )				
ation	Bypass Contactor Line To GND	1000 VDC				Test Summary Test Passed Test Inconclusive				
Insul	Bypass Contactor Load To GND	1000 VDC				Further Investigation Required.				
	Bypass Contactor Line to Load	1000 VDC				☐ Test Failed				
	Capacitor Contactor Line To GND	1000 VDC								
	Capacitor Contactor Load To GND	1000 VDC								
	Capacitor Contactor Line to Load	1000 VDC								
	Comments:									



### INSPECTION FORM MOTOR SOFT STARTER, 600V

ID:

	Test Preparation: Run moto							
uo	Ramp Up Time	Specified:		sec	Actual:		sec	Comments:
pecti	Measured Motor Current	ØA	А	ØB	А	ØC	А	
al Ins	Soft Start Motor Current	ØA	А	ØB	А	ØC	А	
	Ammeter Displayed Motor Current:	1	А	1				
Ope	Remote (RTU/PLC/DCS) Displayed Motor Current:		А					
	Ramp Down Time	Specified:		sec	Actual:		sec	
Ś	Returned to Service:		🗌 Yes	🗌 No	Comments:			
Final Analysis	Monitoring / Further Inspec Required:	tion	🗌 Yes	🗌 No				
A	Repair / Replacement Requ	uired:	🗌 Yes	🗌 No				

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

## INSPECTION FORM NON-FUSIBLE DISCONNECT SWITCH, 600V

Project	Facility:		Facility:					Project Name:						
Pro	Area :				Bid Opportun	ity:								
Disconnect Data	Manufacturer:				Model:									
Disco Da	Rated Voltage:	V	Current Ra	ting:	A Interrupting Rating: A				A					
	Identification Tag Ins	stalled:		□ Yes	□ No	Visual Signs	of Overheating:		□ Yes □ No					
ning	Cleanliness (As Fou				table  Poor	_		🗌 Go	od					
, Clea	Connections:	,			table 🗌 Poor				od 🗌 Acceptable 🗌 Poor					
Visual Inspection / Cleaning	Ground Connection:		Good	Accept	able 🗌 Poor	Verify Blade Operation:	Mechanical	🗌 Go	ood 🗌 Acceptable 🗌 Poor					
Inspe	Door Mechanical:			Accept	able 🗌 Poor	Unit Cleaned	:	🗌 Ye	es					
/isual	Fit Plumb & Square:			C	] Yes 🗌 No	Unit Lubricate	ed:	🗌 Ye	2S					
	Cables Supported A	ppropriate	ely:	Ľ	]Yes 🗌 No	Other:								
			stance (μΩ) As Left)			Test Sumn	nary							
blade tance	A		stance (μΩ) As Left) B		С	 Test Pa	ssed							
Switchblade Resistance	A		As Left)		C	☐ Test Par	ssed onclusive Investigation R	equired.						
Switchblade Resistance	A Comments:		As Left)		C	Test Pat □ Test Inc Further	ssed onclusive Investigation R	equired.						
Switchblade Resistance			As Left)		C	Test Pat □ Test Inc Further	ssed onclusive Investigation R	equired.						
	Comments:	(/ Source: [	As Left)	Disco	C est. / Load: onnected nected with Lo	Test Par Test Inc Further Test Fai	ssed onclusive Investigation R led	of City's Re	presentative is required, ected during the test.					
	Comments: Test Preparation:	(/ Source: [	As Left) B Isolated Isolated	Disco	est. / Load: onnected iected with Lo	Test Pai Test Inc Further Test Fai	ssed onclusive Investigation R led	of City's Re	Ground all phases not					
	Comments:	(/ Source: [	As Left) B	Disco	est. / Load: onnected iected with Lo	ad Isolated	ssed onclusive Investigation Re led	of City's Re	ected during the test.					
	Comments: Test Preparation:	Gource: [	As Left) B Isolated Isolated	Disco	est. / Load: onnected lected with Lo	ad Isolated	ssed onclusive Investigation Re led lote: Approval of rior to leaving ca esistance (MΩ)	of City's Re ables conn	Ground all phases not under test!					
	Comments: Test Preparation: C	Gource: [ Disconnec	As Left) B Isolated t: Open Voltage	Disco C	est. / Load: onnected lected with Lo	ad Isolated	ssed onclusive Investigation Re led lote: Approval of rior to leaving ca esistance (MΩ)	of City's Re ables conn	Context and the sector of the					
Insulation Resistance Test Resistance	Comments: Test Preparation: C Test Test Disconnect Line To G	Gource: [ Disconnec	As Left) B I Isolated tt: Open Voltage	Disco C	est. / Load: onnected lected with Lo	ad Isolated	ssed onclusive Investigation Re led lote: Approval of rior to leaving ca esistance (MΩ)	of City's Re ables conn	Ground all phases not under test! Test Summary Test Passed Test Inconclusive					

### INSPECTION FORM NON-FUSIBLE DISCONNECT SWITCH, 600V

ID

Monitoring / Further Inspection Required: Yes No	is	Returned to Service:	☐ Yes	🗌 No	Comments:
	Final		☐ Yes	🗌 No	
	A	Repair / Replacement Required:	☐ Yes	🗌 No	

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

INSPECTION FORM     Page 1 of 2       Winnipeg     PANELBOARD, LOW VOLTAGE																	
	Winnij	peg			PA	NELB	OAR	RD, L	-OW V	OLT	AGE			ID:			
Project	Faci	lity:					I	Project Name:									
Pro	Area	a :					I	Bid C	pportuni	ity:							
	Loca	ation:						Fed	From:					No. of Circuits:			
	Man	ufacture	r					Model: Seria					Serial	No <sup>.</sup>			
Data		ed Voltag		V	Curro	nt Rating:		WIO		A		Withsta	nd Rating:		А		
Panelboard Data		Single Ph			nase, 3 W	0		Dhaa	e, 4 Wire		Nout	ral Bonded	-				
nelbo		-			lase, 5 v	lie		Phas			Neut			1			
Ра		lain Lug															
	_	lain Brea		Rating:	A	Manuf			oin broo	kor if		lodel:	long chor	oro		Setting:	
	Complete separate inspection form (F-BKR-MC-LV) for main breaker if >= 250A, or has long, short, or ground fault settings.																
	Iden	tification	Tag In:	stalled:		C	] Ye	s [	] No	Visua	al Sign	s of Overh	eating:			🗌 Yes	🗌 No
/ uo	Visu	al signs	of Mois	ture:		[	] Ye	s [	] No	Visua	al Sign	s of Coron	a:			🗌 Yes	🗌 No
pecti	Fuse	e/Breake	r Sizes	Match D	awings:	[	] Ye	s [	] No	Cable	es Sup	ported Ap	propriately	:		🗌 Yes	🗌 No
Visual Inspection / Cleaning	Clea	Inliness (	(As Fou	nd):	Goo Goo	od 🗌 Ac	cepta	able Door Connections:						Good 🗌	Acceptable	Poor	
Visua	Door	r Mechai	nical:		Goo	od 🗌 Ac	cepta	ble [	] Poor	Grou	nd Co	nnection:			Good 🗌	Acceptable	Poor
	Exer	cise All	Circuit I	Breakers:		[	] Ye	s [	] No	Com	ments:						
									I				[				
	Test			irce: Disconne					f City's F leaving c				Equipme	uipment Temperature: °C			
<sup>_</sup> est	Prepa	ration:		Connecte Source I		during								perature Correction or to 20°C:			
Resistance Test	Таа					ulation F				2) Test Summary							
sista	Tes Volta	-	A-GI			o all Pha	ses r	not under test!				Test Passed					
_			RDG	20°C	RDG	20°C	R	C-GND N-GND			20°C	Further Investigation Requir			n Required.		
Insulation		-		20 0	RDO	20 0			20 0			20 0		alleo			
Insu	Test V	oltages:	120	-300V →	500 VD0	C Test Vo	ltage			301-6	500V -	→ 1000 VD	C Test Vo	ltage			
	Comm	ents:															
	Listh	model	ofbrook	or Multi	nla braak	Bre ers of va						st. Setting					
rs	Type		nufacti			lel Series		In	terruptir	ng		sitions/Ci	rcuite	Not	06		
eake		IVIA	nulacu		WOO	ier Serie:	5	R	ating (k/	A)	FU	51110115/01	cuits	NOU	63		
ler Bı	A B																
/Feed	C																
Load/Feeder Breakers	D																
	Е																
	F																

Form F-PNL-LV Rev 01, Created by SNC-Lavalin Inc. M:\113099\4ENG\47ELE\RA - Misc Reports & Forms\F-PNL-LV.doc

#### INSPECTION FORM PANELBOARD, LOW VOLTAGE

Page 2 of 2

ID:

				Breakers	>= 100A	or with Ins	st. Setting						
	List each breaker individually. Complete separate inspection form (F-BKR-MC-LV) for breaker if >= 250A, or has long, short, or ground fault settings.												
Breakers	ID	Pos.	Manufacturer	Model	Trip Rating (A)	Int. Rating (kA)	Inst. Setting	Separate Form	Notes				
eedei													
Load/Feeder													
Ĕ													
is	Returned to	Service:		Yes I	No Con	nments:							

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

	٩		I	NSPE			Page 1 of 2				
Ň	Winnipèg	V	OLTA	GE MO	NITOR		ID:				
Project	Facility:		Pro	oject Nar	ne:						
Pro	Area :										
	-										
	Location:				Cell #:						
Data	Manufacturer:				Model:						
Relay	Туре:				Serial No	.:					
	Comments:										
		1									
				_	-				_		

		Α	В	С		Α	В	с				
ion	Moisture/Rust:				Relay Cleaned:							
Inspection	Over-heating:				Screws Tightened:							
	Cover/Case:											
Visual	Legend: A-Acceptable C-Corrected N-Needs Repair NA-Not Applicable											
	Comments:											

	Parameter	Setting (As Found)	Setting (As Left)
gs	Line Voltage		
Relay Settings	Unbalance		
elay \$	Trip Delay		
R	Restart Delay		
	Mode Switch		

	Desire	d Phase	Voltage	Ac	tual Volt	age	Relay State	Time to Change	ок
	Α	В	С	Α	В	С	Relay State	Time to Change	UK
	600	600	600						
Tests	0	600	600						
Voltage 1	600	600	600						
: Volt	600	0	600						
Basic	600	600	600						
	600	600	0						
	600	600	600						
	Comme	nts:							

## INSPECTION FORM VOLTAGE MONITOR, SSAC-WVM

ID:

Final Analysis	Returned to Service:	🗌 Yes	🗌 No	Comments:
	Monitoring / Further Inspection Required:	🗌 Yes	🗌 No	
	Repair / Replacement Required:	☐ Yes	🗌 No	

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

	Ĩ														Page	Page 1 of 2			
	Vinnipèg <b>TRANSFORMER</b> ,							DRY TYPE, LOW VOLTAGE						ID:	ID:				
ject						Project Name:													
Pro						Bid	Bid Opportunity:												
Transformer Data	KVA: Phase:						Primary Voltage: V Seconda Voltage:							V V					
	Manufacturer:												Seria	Serial Number:					
	Primary Winding:	□ Δ Secondary □ Δ □ Y Winding: □ Y					/ Impedance: %Z Temp Ri						np Rise	Rise: °C K Factor:					
ansfo	Winding Material: Copper Aluminum																		
Ē	No Load Tap	Tap 1 2		2	2			4		5							p Setting		
	Changer	Voltage	9														(As	s Found):	
	Transformer Identification Tag Installed: Yes No Visual Signs of Overheating: Yes I Yes											No							
Visual Inspection / Cleaning	Bushings: Good Acce							_	_		pport Ins					□ Good	1 [	Acceptable	-
	Paint: Good Accep																		
ction	Fans: N/A Good Accept													Poor					
Inspe	Temp. Gauge:       N/A       Good       Acceptable       Poor       Connections:       Good       Acceptable       Image: Connections:								Poor										
/isual	Ground Good Acceptable							e [	] Poor	Ne	utral Bor	nded	to Gro	ound:			N/A	A 🗌 Yes 🗌	No
	Cleanliness (As Found): Good Accep						ptable	table  Poor Unit Cleaned: Yes Photograph Taken: Yes											
	Operational Conditions / Notes:																		
ion	Primary Voltag					' H2:	H2:H3: V			V	V H3:H1:			V Measured at:					
nal Inspection	Secondary Vo	ltage:	X1:_	_:	V	′ X2:	:	:		V	V X3::			V Measured at:					
nal In	Current:		Ph A	A:	A	Ph I	B:			А	Ph C:			A Measured at:					
Operatio	Tap Setting:	etting:																	
	Thermographi Performed:	erformed: Yes Attach																	
۵									Resistance						Dielectric				
Insulation Resistance							Voltage /dc)			30 sec				60 sec.				Absorption Ra 60s/30s	atio
1 Res	Primary to Ground, Secondary Guarded																		
Ilatio	Secondary to Ground, Primary Guarded																╡		
lnsı	Primary to Secondary, Ground Guarded																		

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

ID:

	Returned to Service:	🗌 Yes	🗌 No	Comments:
	Monitoring / Further Inspection Required:	🗌 Yes	🗌 No	
	Repair / Replacement Required:	🗌 Yes	🗌 No	

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