Winnipeg	**COMMISSIONING FORM** **INSTRUMENT TRANSMITTER (CONTROLLER)**	Page 1 of 3
		Equipment Tag:

Project	Facility:	Project Name:	
	Area:	RFP No.	Tender No.

Project Contact	General Contractor:	Project Manager:
	Consultant:	Contract Administrator:
	City of Winnipeg	Consulting Project Manager:

Instrument Data	**Drawings:**	P&ID:	Control Panel:	Loop Diagram:
	Instrument:	Room Installed:	Equipment No.	Output Signal: ☐ 4 – 20 mA ☐ 0 – 10V
		Manufacturer:	Catalog No.	Serial #:
		Power Supply: VAC / VDC	Loop Powered ☐ Yes ☐ No	Auxiliary Contacts Provided: ☐ Yes ☐ No

Visual Inspection / Cleaning	Instrument Lamacoid Installed: ☐ Yes ☐ No	Instrument Properly Mounted: ☐ Yes ☐ No	
	Power Cables Labelled at Both Ends: ☐ Yes ☐ No	Control Cables Labelled at Both Ends: ☐ Yes ☐ No	
	Cleanliness: ☐ Good ☐ Acceptable ☐ Poor	Wiring Matches Loop Diagram: ☐ Good ☐ Acceptable ☐ Poor	
	Fully Functioning Instrument: ☐ Good ☐ Acceptable ☐ Poor	Fully Functioning Output Signal(s): ☐ Good ☐ Acceptable ☐ Poor	
	Instrument Display Works Properly: ☐ Yes ☐ No ☐ N/A	Equipment Cleaned: ☐ Yes	Photographs Taken: ☐ Yes
	Comments:		

Instrument Operational Testing

Test instrument for normal analog reading level along with alarm level condition.

Operational testing should be done as follows:

1. For flow detection, use a multimeter to simulate
2. For gas detection, use a gas calibration kit to simulate signal for flow alarm level
3. For level detection, use a physical level and/or simulated signal for level alarm level.
4. For pressure detection, use a multimeter to simulate signal for pressure alarm level.
5. For temperature detection, use a heat gun and/or multimeter for temperature alarm level.
6. For vibration detection, use a multimeter to simulate signal for vibration alarm level.

Analog Outputs Match Instrument Readings: ☐ Yes ☐ No	Display Reflects Instrument Readings (if applicable): ☐ Yes ☐ No
Alarm Condition Visually Appears on Display (if applicable) ☐ Yes ☐ No	Alarm Condition Annunciates from Instrument (if applicable) ☐ Yes ☐ No
Alarm Outputs Automatically Reset Once Alarm Levels Clear (if applicable): ☐ Yes ☐ No	Alarm Output Contacts Change State When Alarm Levels Reached (if applicable): ☐ Yes ☐ No

Operating Modes	*Sensor*	*Mode Description*	*Alarm Output Contact State*	*Measured Analog Output Signal*	*Instrument Display (include units)*
	Sensor 1	Instrument Normal Level Operation	☐ Opened ☐ Closed ☐ N/A	☐ mA ☐ V	☐ N/A
		Instrument Alarm Level Operation	☐ Opened ☐ Closed ☐ N/A	☐ mA ☐ V	☐ N/A
	Sensor 2 ☐ N/A	Instrument Normal Level Operation	☐ Opened ☐ Closed ☐ N/A	☐ mA ☐ V	☐ N/A
		Instrument Alarm Level Operation	☐ Opened ☐ Closed ☐ N/A	☐ mA ☐ V	☐ N/A

Comments:

Winnipeg	**COMMISSIONING FORM** **INSTRUMENT TRANSMITTER (CONTROLLER)**	Page 2 of 3
		Equipment Tag:

Project	Facility:	Project Name:	
	Area:	RFP No.	Tender No.

Instrument Output Control Signals

Verify Control Signals Between Instrument and Control Panel	Comments:
Test Preparation: Test physical signals rather than installing jumpers for signals	
Field Wires Labelled at Both Ends: ☐ Yes ☐ No	

Analog Output Signal 1	*Signal Type (Flow, Gas Reading, Level, Pressure, Temperature, Vibration, etc.)*	*Transmitter Display (include units)*	*Measured Output Signal*	*Output Received at PLC Card*	*Signal Appears on HMI Screen*	*SCADA Can See Signal*
		☐ N/A	☐ mA ☐ V	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A

Analog Output Signal 2	*Signal Type (Flow, Gas Reading, Level, Pressure, Temperature, Vibration, etc.)*	*Transmitter Display (include units)*	*Measured Output Signal*	*Output Received at PLC Card*	*Signal Appears on HMI Screen*	*SCADA Can See Signal*
	☐ N/A	☐ N/A	☐ mA ☐ V	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A

Discrete Output 1	Signal Description	State	Description	*Output Received at PLC Card*	*Signal Appears on HMI Screen*	*SCADA Can See Signal*
	☐ N/A	0		☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A
		1		☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A

Discrete Output 2	Signal Description	State	Description	*Output Received at PLC Card*	*Signal Appears on HMI Screen*	*SCADA Can See Signal*
	☐ N/A	0		☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A
		1		☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A

Discrete Output 3	Signal Description	State	Description	*Output Received at PLC Card*	*Signal Appears on HMI Screen*	*SCADA Can See Signal*
	☐ N/A	0		☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A
		1		☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A

Discrete Output 4	Signal Description	State	Description	*Output Received at PLC Card*	*Signal Appears on HMI Screen*	*SCADA Can See Signal*
	☐ N/A	0		☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A
		1		☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A

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

Project			
	Facility:	Project Name:	
	Area:	RFP No.	Tender No.

	Company	Name	Signature	**Date** (yyyy/mm/dd)
General Contractor Representative				
City Representative				

Note: The General Contractor Representative is responsible for ensuring that the data is transcribed from the handwritten form correctly, and that the analysis results are correct.

Winnipeg	**INSTRUMENTATION SWITCH CHECKLIST**	Page 1 of 1

Project	
Facility:	Project Name:
Area :	Bid Opportunity:

Instrument		
Tag:	Description:	
Manufacturer:	Model:	Serial Number:

Inspection Checklist			
No.	**Item to be Inspected**	**Comments**	**Pass (P/F)**
1.	Instrument type and class per P&ID and specification		
2.	Instrument tag(s) installed and correct		
3.	Installation of sensor complete and correct		
4.	Block and drain valves		
5.	Pneumatic / hydraulic tubing leak tested		
6.	Heat tracing / insulation / instrument housing		
7.	Wiring correct		
8.	Drawings marked up as-built		
9.	HMI Graphic symbol and tag correct		

State Checklist					
State	**State Desc**	**PLC Input**	**Local HMI**	**SCADA**	**Alarm**	**Pass (P/F)**
0		☐	☐	☐	☐ On ☐ Off ☐ N/A	
1		☐	☐	☐	☐ On ☐ Off	

Calibration					
Transition	**Setpoint Trip Point** (incl. units)	**Actual Trip Point** (incl. units)	**Setpoint Time Delay**	**Actual Time Delay**	**Pass (P/F)**
0 → 1					
1 → 0					

Comments:

	Company	**Name**	**Signature**	**Date** (yyyy/mm/dd)
Tested By				
Witnessed By				

Winnipeg	**INSTRUMENTATION TRANSMITTER LOOP CHECKLIST**	Page 1 of 2

Project	
Facility:	Project Name:
Area :	Bid Opportunity:

Instrument (Sensor / Element)		
Tag:	Description:	
Manufacturer:	Model:	Serial Number:

Transmitter		
Tag:	Description:	
Manufacturer:	Model:	Serial Number:
Units:	Design Range: -	
Output ☐ 4-20 mA ☐ 0-10 V ☐ Modbus ☐ Ethernet IP ☐ Other:		

Inspection Checklist			
No.	**Item to be Inspected**	**Comments**	**Pass (P/F)**
1.	Instrument type and class per P&ID and specification		
2.	Instrument tag(s) installed and correct		
3.	Installation of sensor complete and correct		
4.	Block and drain valves		
5.	Pneumatic / hydraulic tubing leak tested		
6.	Heat tracing / insulation / instrument housing		
7.	Impulse lines pressure tested		
8.	Wiring correct		
9.	Drawings marked up as-built		
10.	HMI Graphic symbol, tag and units correct		

Signal Validation					
Input Signal	**Location**	**Design Value**	**Actual Value**	**Error (%)**	**Pass (P/F)**
	Transmitter Display				
	Transmitter Output				
	Process Display				
	PLC				
	HMI				
	Transmitter Display				
	Transmitter Output				
	Process Display				
	PLC				
	HMI				
	Transmitter Display				
	Transmitter Output				
	Process Display				
	PLC				
	HMI				

Notes:
1. Attach factory calbration forms for all instruments where provided and/or specified.
2. Provide instrument parameters for each parameter changed from the factory default.

Comments:

	Company	**Name**	**Signature**	**Date** (yyyy/mm/dd)
Tested By				
Witnessed By				