

THE REGIONAL MUNICIPALITY OF NIAGARA

TENDER 2017-T-104 (RN 17-04)

**Regional Municipality of Niagara
South Side Low Lift Sewage Pumping Station Upgrades
City of Niagara Falls**

ADDENDUM NO. (6)

I DIRECTIVE

This addendum shall form an integral part of the plans and specifications for the above project and shall be read in conjunction therewith. This addendum shall, however, take precedence over all requirements of the previously issued drawings and specifications with which it may prove to be at variance, unless otherwise clarified by the Engineer.

This addendum must be signed by the Tenderer in the appropriate space and must be attached to the back of the Form of Tender and placed in the Envelope for submission at the time of tendering. **Tenders not including this addendum signed as requested shall be rejected as informal.**

II REVISION

1. **REVISE** Addendum 4 – Answer 1 to read:

The only pre-purchased equipment is denoted on the contract drawings and outlined in specification 01645. The diesel generator, silencer, and miscellaneous parts are the only pieces of equipment that is pre-purchased under specification 16622. The contractor is required to provide and install all remaining equipment outlined in specification 16622.

2. Division 1, Specification Section 01645, Clause 1.3, Sub-clause 1.3.4 – Diesel Electric Generator

On page 3 of 10, **ADD** the following to Paragraph to 1.3.4.1:

f) Silencer

III QUESTIONS

Q1 Smoke Detector Class 1 Division 2 Spec is missing.

A1 Please refer to Spec 13160 Heat detector and apply for Class 1 Div 2 (GE V9006-001-013 or equal)

Q2 Smoke Detector Non-Classified Spec is missing.

A2 Please see Spec. 13160 Heat Detector

Q3 Level Floats c/w Sway Ring and Bracket Spec is missing.

A3 The level floats located in the wet wells are to be provided and installed by the contractor. Please see **attached** specification 13430 for the new level floats.

Q4 Temperature Switch Spec is missing.

A4 The temperature switches are to be provided and installed by the contractor. Please see the **attached** specification 13230 for the new temperature switches.

Q5 CO Detector Spec is missing.

A5 Existing in Generator building

END OF ADDENDUM NO. 6

NO. OF PAGES: 2

Date Issued: April 13, 2017

Signature: Vicki Lafford-Field
Purchasing Agent

THE TENDERER SHALL ADJUST HIS BID PRICE ACCORDING TO THE CHANGES SPECIFIED IN THIS ADDENDUM.

Name of Company: _____

Tenderer's Signature: _____

Date: _____

1. GENERAL

1.1. General

- 1.1.1. The design guidelines expressed in this document define additional requirements and deviations from the requirements set forth in Section 13105 – General Instrumentation Requirements.

1.2. Performance

- 1.2.1. Repeatability: +/- 1.0 inch of float setting
- 1.2.2. Dead Band: 100 mm (4")
- 1.2.3. Temperature: 5 to 60 °C
- 1.2.4. Electrical: SPDT contact rated for 5 amp 120 VAC

1.3. Design

- 1.3.1. Constructed of molded polypropylene or approved equivalent.
- 1.3.2. Float shall be equipped with one SPDT switch. One switch shall be closed and the other open below the float's set point. Above the set point, the switch position shall reverse.
- 1.3.3. Cable insulation suitable for continuous submergence in water or hydrocarbons. Conductors shall be minimum 14 AWG stranded copper. Cable length to suit the application.
- 1.3.4. Terminate float switch cables on terminal strips mounted in a NEMA 4X junction box located for ease of maintenance. Locate weatherproof cable connectors on the bottom of the box only.
- 1.3.5. Provide all mounting hardware including sway control rings, hanger brackets, and pipe-mounting hardware.
- 1.3.6. Mount sway control rings and hanger brackets using cinch anchors.

2. INSTALLATION

2.1. General

- 2.1.1. The following installation requirements are in addition to or deviations from the requirements set forth for instrumentation in the General Instrumentation Standard.
1. Mount float switches on a rigidly held one-inch standpipe in small sump applications and with sway control rings and hanger brackets on larger wet well applications.
 2. Wire the switch using the manufacturer's recommended flexible cable to a junction box close to the switch to facilitate removal for maintenance. Wire from the junction box to the control panel in rigid conduit.
 3. Mount switch such that it is easily removable for maintenance or cleaning, without emptying the tank or sump in which it is mounted.

- .4. Provide intrinsic barriers (to be installed in un-classified area) if sensors are installed within classified area.

3. SPECIFICATION

3.1. General

- 3.1.1. This section provides data sheets with process information.
 3.1.2. Approved Manufacturers:

- .1. ITT Flygt

3.2. Level Float Switches

Service:	Wet Well		
Tag Name:	WWL01-LH,,WWL02-LH		
P&ID:			
Fluid:	Waste water		
Temp min/max:	5 -60 °C		
Specific Gravity:	0.85 to 1.1		
Switch:			
Type:	Mercury Free Dry Contact		
Contact Form:	SPDT		
Rating:	5 Amp @ 120 Vac		
Differential:	100 mm (4 ")		
Material:	PVC		
Cable Length:	To fit the application		
Accessories:			
Sway Control Rings:	Yes		
Hanger Bracket:	Yes		
Junction Box:	Yes		
Intrinsically Relay:	Yes		
Approval:	CSA		
Enclosure:	NEMA 6P		
Classification area:	Class 1, Div.1		
Manufacturer:	ITT Flygt		
NOTES			

END OF SECTION

1. GENERAL

1.1 Scope

- 1.1.1 The section covers the supply and installation of the temperature switch for the works.

1.2 Submittal

- 1.2.1 Submit shop drawings as specified herein.

1.3 Applicable Codes and Standards

- 1.3.1 CSA – Canadian Standards Association
1.3.2 All local and provincial codes
1.3.3 Region of Niagara Falls Standards

1.4 Temperature Switch

1.4.1 Temperature Switch

- .1 Temperature switch to be provided c/w all requires mounting hardware for the range and application shown.

1.4.2 Performance:

- .1 Set Point: Adjustable over the full range
.2 Input Range: 0°C to 100°C
.3 Features: Set High Limit @ 80°C
.4 Accuracy: ±1.0°C

1.4.3 Switch:

- .1 Switch Type: Hermetically sealed switch
.2 Contact Type: One adjustable SPDT, rated for 5 Amps at 120VAC
.3 Snap action
.4 Reset: Auto reset on decreasing / increasing temperature.
.5 Sensor Element: bimetal.

1.5 Materials of Construction

- 1.5.1 Enclosure: NEMA4X
1.5.2 Acceptable Manufactures: See last issue of Region Approved Manufacturer List

1.6 Thermowell

- 1.6.1 Unless otherwise shown, provide a thermo well conforming to the following requirements matching the sensor:

- .1 Thermo well construction of 316 stainless steel.
.2 Provide appropriate length for necessary immersion length and mounting requirements. For pipes, provide approximately 1/3 pipe diameter immersion depth plus 75 mm (3 inch) extension.
.3 Provide with standard NPT fitting or standard flange at the cold end of the thermo well.

1.7 Execution

1.7.1 Installation

- .1 Install building temperature switch c/w all required mounting hardware.
- .2 Install a temperature gauge at the temperature switch location.
- .3 Tag temperature switch with tag number and the service.

1.8 Product

<u>Tag Name:</u>		
<u>Process:</u>	Electrical room	
<u>Service:</u>	Air	
P&ID dwg:		
Temp min/max:	0 - 60 °C	
Press min/max:	atmospheric	
<u>Switch:</u>		
Type:	Snap Action	
Contact :	(TSL, TSH) SPDT, 120VAC/2 A	
Range:	0-60 °C	
Set point:	5 °C(L), 35°C(H)	
Adjustment:	80 % of range	
Sensor:	Bimetal	
Immersion:	To fit the application	
Options:	Dial Indication	
	c/w SS thermowell	
Case Material:	Epoxy Painted Aluminum	
Reset:	Auto-reset on temp. decreasing	

<u>Electrical:</u>		
Approval:	CSA	
Enclosure:	NEMA 4X	
Area Classification	N/A	
Special notes:	Manufact: Honeywel, Johnson	

END OF SECTION