



# 837-2009 ADDENDUM 2

## SEWPCC ELECTRICAL INSPECTION AND UPGRADES

### **URGENT**

**PLEASE FORWARD THIS DOCUMENT TO WHOEVER IS IN POSSESSION OF THE BID OPPORTUNITY**

ISSUED: December 17, 2009  
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**THIS ADDENDUM SHALL BE INCORPORATED INTO THE BID OPPORTUNITY AND SHALL FORM A PART OF THE CONTRACT DOCUMENTS**

Template Version: A20070419

**Please note the following and attached changes, corrections, additions, deletions, information and/or instructions in connection with the Bid Opportunity, and be governed accordingly. Failure to acknowledge receipt of this Addendum in Paragraph 8 of Form A: Bid may render your Bid non-responsive.**

### **PART D – SUPPLEMENTAL CONDITIONS**

Revise: D2.2 (p) to read:

- (a) Perform the following switchgear upgrades:
  - (i) Modify wiring and other miscellaneous changes to raw sewage pump VFDs.
  - (ii) Modify the Main Switchgear to remove the existing undervoltage relays, install voltmeters, and install remote main breaker control.

### **PART E – SPECIFICATIONS**

Clarification: All requirements for the Contractor to perform installation of conduit and associated wiring have been removed from the Bid Opportunity. No programming of the IQ-Data Plus II or IQ-DP4130 metering relays is required. Installation of the remote breaker control panel DCP-S10 has also been removed from the scope of work.

Revise: E1.2 to read: The following Drawings are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
1-0102A-B0001	Facility Floor Plan- Lower Level
1-0102A-B0002	Facility Floor Plan- Main Level
1-0102M-E0006	Plan Layout- Administration Building Electrical Room (MCC-1M)
1-0102M-E0007	Single Line Diagram- Administration Building
1-0102M-E0008	MCC Elevation & Schedule- MCC-1M
1-0102G-E0007	Plan Layout- Grit Building Electrical Room (MCC-1G to 4G, ATS & VFD)
1-0102G-E0008	Single Line Diagram- Pump & Screen Building
SEP-829	Motor Control Centre- 1G
SEP-830	Motor Control Centre- 2G
SEP-831	Motor Control Centres 3G & 4G
SEP-832	MCC-1G & 2G and MCC-3G & 4G Distribution Section Schedules
1-0102G-A0002	P & ID- Raw Sewage Pump G101-RSP
1-0102G-A0003	P & ID- Raw Sewage Pump G102-RSP
1-0102G-A0004	P & ID- Raw Sewage Pump G103-RSP
1-0102G-A0005	P & ID- Raw Sewage Pump G104-RSP
1-0102G-A0039	Loop Diagram- Raw Sewage Pump G101
1-0102G-A0038	Loop Diagram- Raw Sewage Pump G102
SEP-2015	Loop Diagram- Raw Sewage Pump G103

SEP-2019	Loop Diagram- Raw Sewage Pump G104
1-0102B-E0006	Plan Layout- Service Building Electrical Room and Generator Room (MCC-2B)
1-0102B-E0007	Single Line Diagram- Service Building
SEP-908	Motor Control Centre- 2B
1-0102P-E0009	Plan Layout- Primary Clarifier Electrical and Control Room (MCC-1P & 2P)
1-0102P-E0010	Single Line Diagram- Primary Clarifier
SEP-288	Motor Control Centre - 1P
SEP-289	Motor Control Centre - 2P
SEP-290	MCC Tie Schedule (MCC- 1P & MCC- 2P)
1-0102R-E0007	Plan Layout- Oxygen Reactors Electrical Distribution (MCC- 1R & 2R)
1-0102R-E0006	Single Line diagram- Oxygen Reactors
SEP-351	Motor Control Centre - 1R
SEP-352	Motor Control Centre – 2R
1-0102S-E0012	Plan layout- Secondary Clarifier Electrical Room (MCC-1S, 2S, Main switchgear)
1-0102S-E0013	Single Line Diagram- Main Electrical Distribution
1-0102S-E0014	Single Line Diagram- Secondary Clarifiers
1-0102S-E0015	Three Line Diagram (Banks 1&2 Main Breakers)
1-0102S-E0016	Breaker Control Schematic (Banks 1 & 2 Main Breakers)
SEP-453	Switchgear & Details (4000A, 600V Main Switchgear)
SEP-465	Motor Control Centre- 1S Schedule
SEP-466	MCC- 1S & MCC- 2S Panel Layout
SEP-467	Motor Control Centre - 2S Schedule
SEP-468	MCC-1S & MCC- 2S Switchgear Layout & Schematic
1-0102U-E0003	Plan Layout- UV Disinfection Facility Electrical Room (CDP-A, PNL-B, PNL-C)
1-0102U-E0004	Single Line diagram- UV Disinfection

Add: E10.2(hhh) S108-RAP VFD.

Add: E10.2 (iii) S109-RAP VFD.

Add: E10.2 (jjj) S202-WAP VFD.

Add: E10.2 (kkk) S203-WAP VFD.

Add: E10.2 (lll) S103-RAP VFD.

Add: E10.2 (mmm) S102-RAP VFD.

Add: E10.2 (nnn) S101-RAP VFD.

Revise: E10.6 (oo) to read: Verify the operation of the associated DCS status and alarm points. The assistance of City personnel will be required. Specific points to be tested are:

Point	Type	Description
SA-G551-ET	AI	MCC-1G Voltage
SA-G552-ET	AI	MCC-2G Voltage
SA-G553-ET	AI	MCC-3G Voltage
SA-G554-ET	AI	MCC-4G Voltage
SA-G301-ET	AI	Generator (1000kW) Voltage
SA-G301-MM	DI	Generator (1000kW) Running
SA-G301-QF	DI	Generator (1000kW) Fail
SA-G301-YS	DI	Generator (1000kW) in Auto
SA-G309-ZB	DI	Generator (1000kW) Breaker Closed
SA-G309-ZD	DI	Generator (1000kW) Breaker Open

SA-G311-ZB	DI	G311-ATS in Normal Position
SA-G311-ZD	DI	G311-ATS in Emergency Position
SA-G311-YS	DI	G311-ATS in Auto
SA-G305-ZB	DI	MCC-4G Breaker Closed
SA-G305-ZD	DI	MCC-4G Breaker Open
SA-G306-ZB	DI	MCC-3G Breaker Closed
SA-G306-ZD	DI	MCC-3G Breaker Open
SA-G308-ZB	DI	MCC-3G/4G Tie Breaker Closed
SA-G308-ZD	DI	MCC-3G/4G Tie Breaker Open

Revise: E10.8 (s) to read: Verify the operation of the associated DCS status and alarm points. The assistance of City personnel will be required. Specific points to be tested are:

Point	Type	Description
SB-P504-ET	AI	MCC-1P Voltage
SB-P505-ET	AI	MCC-2P Voltage

Revise: E10.10 (s) to read: Verify the operation of the associated DCS status and alarm points. The assistance of City personnel will be required. Specific points to be tested are:

Point	Type	Description
SF-S511-ET	AI	MCC-1S Voltage
SF-S512-ET	AI	MCC-2S Voltage

Delete: E11.2

Revise: E11.4 (a) (iii) to read: Extend 1MC/CT1, 2MC/CT2 terminal groups from their existing positions in Breaker compartment to Low voltage compartment, using new terminal blocks and new wiring. The remote control button wiring will be future and is to be completed under a separate contract.

Delete: E11.4 (b)

Clarification of E14 (h): Cable length measurements are required for all cables for which an inspection is specified, including, but not necessarily, MCC feeder cables, transformer feeder cables and panelboard feeder cables. Cables length measurements are not required for cables from the MCC to individual motor loads not included in the inspection.

Add: E14 (h)(i) All cable lengths are to be measured in meters, with a maximum error of +/-5%.

Clarification of E15.1 (a): It is not required to open the busway at all joints and bends. An external visual inspection of the entire length is required, as well as an external thermographic inspection of all joints.

Add: E15.1 (k)(i) All busway lengths are to be measured in meters, with a maximum error of +/-5%.

Revise: E37 (a) Remove all necessary covers prior to thermographic inspection. Removal of busway covers is not required.

Add: E37 (g) Every joint of the busway is to be scanned and inspected for a temperature differential. Provide a photograph and thermogram of at least 5% of the joints, with a minimum of one per busway. Provide a photograph and thermograms of every joint with an abnormal temperature, and provide a detailed indication of the abnormal joint location.

Delete: E39.6

Delete: E40.8

## **DRAWINGS**

Delete: 837-2009\_Drawing\_1-0102G-A0036-001-01

837-2009\_Drawing\_1-0102G-A0037-001-01

837-2009\_Drawing\_1-0102G-A0040-001-00

837-2009\_Drawing\_1-0102P-A0039-001-00

837-2009\_Drawing\_1-0102P-A0040-001-00

837-2009\_Drawing\_1-0102S-E0017-001-00

837-2009\_Drawing\_1-0102S-A0051-001-01

837-2009\_Drawing\_1-0102S-A0052-001-01

837-2009\_Drawing\_1-0102S-A0054-001-00