



PROCUREMENT DIVISION

410 Clematis Street, 5th Floor
West Palm Beach, FL 33401
TEL: (561) 822-2100
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“The Capital City of the Palm Beaches”

**ADDENDUM 5
ITB 11-12-103**

ECR EMERGENCY POWER PLANT UPGRADES – PHASE 1

Each recipient of this Addendum acknowledges all of the provisions set forth in the Invitation to Bid and agrees to be bound by the terms thereof.

This addendum shall modify, clarify, change or add information and become part of the above referenced Invitation to Bid.

This addendum shall:

- 1. Provide three (3) data sheets for the Process Industry Practices (PIP) specifications. The data sheets are posted as separate attachments on the purchasing website at:

http://www.wpb.org/procurement/procurement_opportunities.php

- 2. Provide clarification:
The diesel standby generator system shall include an indoor day tank sized for a minimum two-hour fuel supply. The day tank shall be provided and installed per the diesel standby generator Manufacturer's design, specification and recommendation, shall meet all applicable local codes and standards, and shall include all equipment, controls, and materials of any nature whatsoever necessary to place into operation a complete and functioning system.

All other information remains the same.

Bidders must acknowledge receipt of this Addendum 5 in the space provided below. This Addendum forms an integral part of the documents and therefore must be executed. Failure to return this addendum with your bid submittal may be cause for disqualification.

Issued By: City of West Palm Beach
Procurement Division
January 13, 2012

Issued By: Althea Pemsel
Althea Pemsel, MA, C.P.M.
Procurement Official

BIDDER: _____

Signed By: _____

Print Name: _____

Title: _____

Date: _____



ASSOC. PIP
ELSAP20

DATA SHEET

ELSAP20D-D

LOW-VOLTAGE AUTOMATIC
TRANSFER SWITCH

PAGE 1 OF 1
JUNE 2007

ISSUED FOR: PROPOSAL PURCHASE AS BUILT

FACILITY NAME/LOCATION: East Central Regional Water Reclamation Facility - West Palm Beach, Florida

ITEM NAME: Automatic Transfer Switch PURCHASER/LOCATION: _____

ITEM TAG NO.: ATS1 JOB NO.: _____

SERVICE: _____ PURCHASER ORDER NO.: _____

UNIT: _____ SUPPLIER/LOCATION: _____

DWG. NO.: 43-42-11-29 (SHEETS E-01-0 THRU E-05-0) SUPPLIER ORDER/SERIAL NOS.: _____ / _____

DATA PROVIDED BY: PURCHASER SUPPLIER SUPPLIER IF NOT BY PURCHASER

REFER TO PIP ELSAP20 FOR GENERAL REQUIREMENTS

APPLICABLE STATE AND LOCAL CODES: _____

SITE CONDITIONS:

ALTITUDE: BELOW 3300 FT SEISMIC ZONE: N/A

AMBIENT TEMPERATURE: MAX.: 40 °C MIN.: -5 °C

AREA CLASSIFICATION: UNCLASSIFIED OTHER: _____

OTHER: _____

GENERAL (4.1):

MOUNTING (4.1.1): INDOOR OUTDOOR

IN MCC IN SWITCHGEAR

OTHER: _____

BYPASS ISOLATION SWITCH REQUIRED (4.1.2)

PERMIT USE OF MOLDED CASE CB'S (4.1.3)

INTERCONNECTION (4.1.5): SILVER PLATED OTHER: _____

TRANSFER SWITCH (4.2):

480 VOLTS 3 PHASE 3 POLES 60 HERTZ

AMPERES: 600 FAULT CURRENT (4.2.2): 50,000A

OPEN TRANSITION (4.2.3)

CLOSED TRANSITION (4.2.4)

DELAYED TRANSITION (4.2.5)

SWITCHED NEUTRAL CONDUCTOR (4.2.14)

SOLIDLY CONNECTED NEUTRAL CONDUCTOR (4.2.15)

MICROPROCESSOR CONTROLLER (4.4):

TRANSFER TO ALTERNATE SOURCE (4.4.10) 85% VOLTAGE

OTHER: _____

RE-TRANSFER TO NORMAL SOURCE (4.4.10) 90% VOLTAGE

OTHER: _____

TRANSFER TO ALTERNATE SOURCE (4.4.11) 90% OF FREQUENCY

OTHER: _____

RE-TRANSFER TO NORMAL SOURCE (4.4.11) 95% OF FREQUENCY

OTHER: _____

RE-TRANSFER TO NORMAL SOURCE (4.4.14) MANUAL

AUTOMATIC

COMMUNICATION (4.4.3)

RS485 OTHER: DEVICENET

OPTIONAL FEATURES (4.5):

GREEN/RED SIGNAL LIGHTS (4.5.1)

AUXILIARY CONTACTS (4.5.2)

CONTACT FOR LV ENGINE START SIGNAL (4.5.3)

TEST SWITCH FOR NORMAL SOURCE FAILURE (4.5.4)

PUSH-TO-TEST INDICATOR LIGHTS (4.5.5)

PUSH BUTTON TO TEST ALL (4.5.5)

ENGINE EXERCISER (4.5.6)

ENCLOSURE (4.6):

NEMA 1 WALL MOUNTED FLOOR MOUNTED

OTHER: _____

FINISH: SUPPLIER STANDARD OTHER: _____

SPACE HEATER NOT REQUIRED (4.6.2)

POWER FOR SPACE HEATER: PURCHASER SUPPLIER

TEMPERATURE CONTROL (4.6.2.6):

ADJUSTABLE THERMOSTAT CONTROL

HIGH TEMPERATURE CUTOUT

MOMENTARY TEST PUSHBUTTON AND AMMETER (4.6.2.7)

INSPECTION AND TESTING (4.7):

SUPPLIER'S STANDARD TESTS

OTHER: _____

WITNESSED

SHIPPING (4.8):

SUPPLIER'S STANDARD PREPARATION

OTHER: _____

DOCUMENTATION (4.9):

ELECTRONIC DOCUMENT FORMAT:

DXF OTHER: PDF/DWG

MANUFACTURER TO PROVIDE:

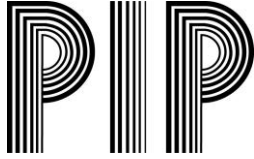
1 REPRODUCIBLE PLUS:

2 COPIES OF ALL DOCUMENTATION PLUS:

2 COPIES OF OPERATING MANUALS

OTHER REQUIREMENTS:

NO.	DATE	REVISION DESCRIPTION	BY	APVD.



ASSOC. PIP
ELSMC13

DATA SHEET

ELSMC13D-D

LOW-VOLTAGE
MOTOR CONTROL CENTERS

PAGE 1 OF 2
OCTOBER 2006

ISSUED FOR: PROPOSAL PURCHASE AS BUILT

FACILITY NAME/LOCATION: East Central Regional Water Reclamation Facility - West Palm Beach, Florida

ITEM NAME: MCC#6 PURCHASER/LOCATION: _____
ITEM TAG NO.: MCC#6 JOB NO.: _____
SERVICE: _____ PURCHASER ORDER NO.: _____
UNIT: _____ SUPPLIER/LOCATION: _____
DWG. NO.: 43-42-11-29 (SHEETS E-01-0 THRU E-05-0) SUPPLIER ORDER/SERIAL NOS.: _____ / _____

DATA PROVIDED BY: PURCHASER SUPPLIER SUPPLIER IF NOT BY PURCHASER

REFER TO PIP ELSMC13 FOR GENERAL REQUIREMENTS

APPLICABLE STATE AND LOCAL CODES: _____

● **SYSTEM PARAMETERS:**

480 VOLTS 3 PHASE 60 HERTZ 3 WIRE
AVAILABLE FAULT CURRENT (4.1.5): 42,000A

● **SITE CONDITIONS (4.1.2):**

ALTITUDE: BELOW 3300 FT SEISMIC ZONE: _____
AMBIENT TEMPERATURE: MAX.: 40 °C MIN.: _____ °C
HUMIDITY: MAX.: _____ % MIN.: _____ %

● **NEMA WIRING (4.1.3):**

CLASS I - TYPE B OTHER: _____
UNIT SPACE MINIMUM HEIGHT (4.1.6):
 6 INCHES MIN. OTHER: _____

● **NATIONAL RECOGNIZED TESTING LABORATORY**

LISTING/LABELING REQUIRED (4.1.10):
 UL FM OTHER: _____

● **MCC ENCLOSURE (4.2.1):**

NEMA 1 (STANDARD) NEMA 3R DRIP-PROOF
 NEMA 1A GASKET NEMA 12 DUST-TIGHT
 OUTDOOR ENCLOSURE (SEE PIP ELSSG12)
 FRONT ONLY BACK TO BACK
 15 INCHES DEEP 20 INCHES DEEP
 _____ INCHES DEEP

EXPANSION COVER PLATE(S) REQUIRED (4.2.1.4):

LEFT RIGHT

INFRARED VIEWING PORTS (4.2.1.9):

REQUIRED, SEE ATTACHED PORT LOCATIONS AND QUANTITIES

● **HORIZONTAL WIREWAY SIZE (4.3.3):**

6 INCHES MIN. OTHER: _____

● **POWER BUS GENERAL (4.4.1):**

BUS BRACING (4.4.1.1):
 42,000 A 65,000 A OTHER: _____
 50,000 A 100,000 A

BUS MATERIAL (VERTICAL AND HORIZONTAL) (4.4.1.6):

COPPER ALUMINUM

BUS PLATING (4.4.1.6):

MANUFACTURER STANDARD

TIN-PLATED SILVER-PLATED OTHER: _____

JOINTS ONLY ENTIRE BUS PLATED

● **HORIZONTAL POWER BUS (4.4.2.1):**

600 A 800 A 1000 A
 1200 A 1600 A 2000 A
 2500 A OTHER: _____

● **VERTICAL POWER BUS (4.4.3.1):**

300 A 600 A 450 A
 800 A OTHER: _____

● **GROUND BUS (4.5.2.3):**

SIZE: MANUFACTURER STD. 1/4 INCH x 1 INCH
 OTHER: _____

VERTICAL COPPER GROUND BUS (4.5.3.1)

HORIZONTAL COPPER GROUND BUS: TOP BOTTOM

OTHER: _____

● **INCOMING LINE POWER (4.6):**

LINE ENTERS:

TOP BOTTOM _____
 LEFT RIGHT
 TOP HAT 12 INCHES _____ INCHES

LINE CONNECTION:

LUGS ONLY MAIN CIRCUIT BREAKER: _____ A
 MAIN FUSED SWITCH: _____ A

LUGS:

LUGS BY SUPPLIER COPPER ALUMINUM

QTY. WIRE(S) PER PHASE: 2 WIRE SIZE: 500 AWG

● **INCOMING METERING (4.6.9):**

REQUIRED DIGITAL ANALOG
 VOLTMETER AMMETER WATTHOUR METER
 WATTMETER REQUIRED MFG.: _____
 OTHER REQ: _____

● **UNITS (4.7):**

AUTOMATIC SHUTTERS (4.7.3.2)
 PROVISIONS FOR TWO-HOLE COMPRESSION LUGS

UNITS > 100 A (4.7.4.4)

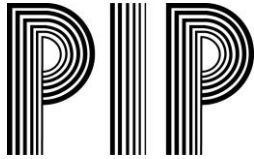
UNIT LOAD CABLE LUGS BY SUPPLIER

SPACE FOR FUTURE UNIT INTERNAL DEVICES

OTHER UNIT DEVICES: CONTROL NET TO DEVICE NET LINK
DEVICE NET POWER SUPPLY

DOOR-MOUNTED DEVICES: HIM UNITS FOR VFD'S

NO.	DATE	REVISION DESCRIPTION	BY	APVD.



ITEM TAG NO.: _____ JOB NO.: _____ REVISION DATE: _____

COMBINATION STARTERS AND CONTACTORS (4.8):
 MOTOR PROTECTION DEVICES (4.8.1.1):
 THERMAL-MAGNETIC MAGNETIC ONLY
 FUSED CURRENT LIMITING SWITCH
 AIR BREAK CONTACTOR:
 SIZE 1 SIZE 2 SIZE 3
 SIZE 4 AND LARGER (4.8.1.2)
 VACUUM CONTACTOR:
 SIZE 1 SIZE 2 SIZE 3
 SIZE 4 AND LARGER (4.8.1.2)
 STARTER UNIT CONNECTION TO BUS (4.8.1.3)
 BOLT IN BOLT IN ABOVE SIZE _____
 INTEGRATED DIGITAL COMM AND CONTROL (4.8.1.9)
 REQUIRED TYPE OF SYSTEM _____
 CONTROL POWER TRANSFORMERS (4.8.2):
 480/120 VAC OTHER: _____
 INDIVIDUAL CPTs OTHER: _____
 EXTRA VA: _____
 24 VOLT DC CONTROL POWER (4.8.2.6):
 DUAL POWER SUPPLIES NOT REQUIRED
 SURGE SUPPRESSORS ON CONTACTOR COILS (4.8.3.3)
 UNDERVOLTAGE RIDE-THROUGH DEVICE REQUIRED FOR SPECIFIED UNITS (4.8.3.4)
 SPARE AUXILIARY CONTACTS (4.8.4.7):
 NORMALLY OPEN: _____ NORMALLY CLOSED: _____
 OVERLOAD RELAYS (4.8.5):
 ELECTRO-MECHANICAL ELECTRONIC (SOLID STATE)
 ELECTRONIC SOLID STATE WITH :
 SINGLE PHASE PROTECTION GROUND FAULT DETECTION
 AUTOMATIC RESET AMBIENT COMPENSATED
 CLASS 20 CLASS 10
 HEATERS SIZED PER PURCHASER'S ATTACHMENTS
 WITHOUT HEATERS
 ADJUSTMENT RANGE (4.8.7.2):
 PER NEC TABLE OTHER: _____
 PHASE LOSS PROTECTION (4.8.6.1):
 PHASE LOSS PROTECTION DEVICE REQUIRED

FEEDER UNITS (4.9):
 CIRCUIT BREAKER FEEDER UNIT CONNECTION TO BUS (4.9.1.2)
 BOLT IN BOLT IN ABOVE AMP RATING _____

FUSED SWITCHES (4.9.2):
 MOLDED-CASE SWITCHES ALLOWED FOR RATING ABOVE: _____ A (4.9.2.7)
 FUSES:
 FUSES PER ATTACHED PURCHASER'S DOCUMENTATION
 WITHOUT FUSES
 CLASS J CLASS L CLASS RK1 CLASS RK5
 OTHER: _____
 TIME DELAY FAST ACTING
 FUSED DISCONNECT FEEDER UNIT CONNECTION TO BUS (4.9.2.5)
 BOLT IN BOLT IN ABOVE AMP RATING _____

SPACE HEATER (4.10):
 REQUIRED HUMIDISTAT HEATER CB
 THERMOSTAT CONTROL TEST PB AND AMMETER

PAINTING (4.11):
 STANDARD FINISH
 CUSTOM FINISH : _____

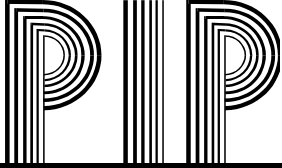
NAMEPLATES (4.12):
 1 INCH X 2½ INCHES (STD.)
 OTHER: _____
 WHITE TAG/BLACK LETTERS OTHER: _____
 3/16-INCH LETTERS OTHER: _____
 ENGRAVED PLASTIC OTHER: _____
 DOOR-MOUNTED DEVICE NAMEPLATE LOCATED INSIDE DOOR

INSPECTION AND TESTING (4.13):
 WITNESS OF FUNCTION TESTING , PRODUCTION TESTS, OTHER INSPECTIONS (4.13.3):
 REQUIRED FOR _____
 (TYPE OF INSPECTION OR TESTING)

DOCUMENTATION (4.15):
 SCHEMATIC DIAGRAMS:
 MANUFACTURER STANDARD BY PURCHASER
 ELECTRONIC DOCUMENT FORMAT:
 DXF DWG OTHER: PDF

SUPPLIER TO PROVIDE:
 _____ 1 REPRODUCIBLE PLUS
 _____ 2 COPIES OF ALL DOCUMENTATION PLUS
 _____ 2 COPIES OF THE OPERATING MANUALS

OTHER REQUIREMENTS:



ASSOC. PIP
ELSMC20

DATA SHEET

ELSMC20D-D

LOW VOLTAGE AC
ADJUSTABLE SPEED DRIVE

PAGE 1 OF 2

APRIL 2006

ISSUED FOR: PROPOSAL PURCHASE AS BUILT

FACILITY NAME/LOCATION: East Central Regional Water Reclamation Facility - West Palm Beach, Florida

ITEM NAME: As described on drawing PURCHASER/LOCATION: _____

ITEM TAG NO.: As described on drawing JOB NO: _____

SERVICE: _____ PURCHASER ORDER NO.: _____

UNIT: _____ SUPPLIER/LOCATION: _____

DWG. NO.: 43-42-11-29 (SHEETS E-01-0 THRU E-05-0) SUPPLIER ORDER/SERIAL NOS.: _____ / _____

DATA PROVIDED BY: PURCHASER SUPPLIER SUPPLIER IF NOT BY PURCHASER

REFER TO PIP ELSMC20 FOR GENERAL REQUIREMENTS

APPLICABLE STATE AND LOCAL CODES: _____

SITE CONDITIONS:

ALTITUDE: BELOW 3300 FT SEISMIC ZONE: N/A

AMBIENT TEMPERATURE: MAX.: 40 °C MIN.: -5 °C

NON-CLASSIFIED CLASSIFIED

AREA CLASS: _____ DIV/ZONE: _____ GROUP: _____

AUTOIGNITION TEMP.: _____ °C

OTHER: _____

GENERAL (4.1):

POINT OF COMMON COUPLING (4.1.3): _____

COMPUTER HARMONIC SIMULATION REQUIRED (4.1.3)

MOUNTED WITHIN SWITCHGEAR OR MCC LINEUP (4.1.4)

NRTL LISTED / LABELED (4.1.6)

OPERATING CONDITIONS (4.1.8):

LOAD TYPE (E.G., PUMP, FAN, COMPRESSOR, ETC.):

DAC START SYSTEM WITH LOW TORQUE

CONSTANT TORQUE LOAD VARIABLE TORQUE LOAD

SPEED RANGE: _____ TO _____ RPM HZ

ACCELERATION TIME: _____ SEC

DECELERATION TIME: _____ SEC

BREAKAWAY TORQUE: _____ FT-LBS

MAX TORQUE: _____ FT-LBS @ MAX. RPM

LOAD INERTIA: _____ FT-LBS²

BRAKE HP: _____ @ _____ RPM

MOTOR DATA (4.1.10):

75/125 pk HP SEE MOTOR DATA SHEET

CABLE LENGTH FROM ASD TO MOTOR: 300 FT

MOTOR FEEDER CABLE SIZE: #2 AWG

INPUT POWER (4.2):

480 VOLTS 3 PHASE 60 HERTZ

SOLIDLY GROUNDED HIGH-RESISTANCE GROUNDED

UNGROUNDED

AVAILABLE FAULT CURRENT: _____ AMPS

CONTROL FEATURES (4.4):

SPEED - SIGNAL TYPE & RANGE: _____

TORQUE - SIGNAL TYPE & RANGE: _____

OTHER: _____ TYPE & RANGE: _____

_____ TYPE & RANGE: _____

CONTROL SIGNALS (4.4.2):

0 TO ± 10 VDC

0 TO ± 5 VDC

4 to 20 mA

POTENTIOMETER

DIGITAL

SOURCE VOLTAGE FOR CIRCUIT LOGIC (4.4.4):

INTERNAL CPT

EXTERNAL CONTROL POWER CONTROL VOLTAGE:

_____ VDC _____ VAC

OUTPUT SPEED INDICATOR: HZ RPM

OTHER: _____

CONTROLS TO BE PROVIDED WITH ASD MOUNTED IN STAND-ALONE

ENCLOSURES OR MCC (4.4.7):

START/STOP PUSH-BUTTON

HAND/OFF/AUTO SELECTOR SWITCH

LOCAL/REMOTE PUSH-BUTTON

HAND SPEED ADJUSTABLE

OTHER: VFD POWERFLEX 700, DEVICE NET

COMMUNICATIONS AND SOFTWARE (4.5):

RS 232

RS485

MODBUS

DEVICENET

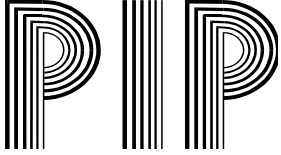
PROFIBUS DP

CONTROLNET

ETHERNET IP

REMOTE CONFIGURATION SOFTWARE CAPABILITY (4.5.2)

NO.	DATE	REVISION DESCRIPTION	BY	APVD.



ASSOC. PIP
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DATA SHEET

ELSMC20D-D

LOW VOLTAGE AC
ADJUSTABLE SPEED DRIVE

PAGE 2 OF 2

APRIL 2006

OPERATIONAL FUNCTIONS (4.6):

OTHER OPERATIONAL FEATURES (4.6.10):

PROTECTIVE FEATURES (4.7):

OTHER ADDITIONAL FEATURES (4.7.3):

MONITOR FEATURES (4.8.8):

- POWER-ON INDICATION
- RUN INDICATION
- FAULT INDICATION
- GROUND FAULT ALARM
- GROUND FAULT SHUTDOWN
- METERING & INDICATION:
- OTHER: Motor Speed or Current Draw

STAND-ALONE ENCLOSURE (4.9):

- NOT REQUIRED REQUIRED
- FLOOR MOUNTED WALL MOUNTED
- MFG. STD. NEMA 1 NEMA 1A NEMA 12
- OTHER: MCC Mounted as defined in specification
- INDOOR OUTDOOR
- ENCLOSURE COOLING REQUIRED
- LOSS OF COOLING ALARM REQUIRED
- OTHER: _____

PAINTING (4.9.9):

- MFG. STD. ANSI 61 OTHER: _____
- PER PAINT SPEC.: _____

SPACE HEATERS (4.9.10):

- NOT REQUIRED REQUIRED
- THERMOSTAT: NOT REQ'D. REQ'D.
- HUMIDISTAT: NOT REQ'D. REQ'D.
- AMMETER: NOT REQ'D. REQ'D.
- SPACE HEATER TEST CIRCUIT: NOT REQ'D. REQ'D.
- OTHER: _____

NAMEPLATES (4.9.11):

NAMEPLATE ENGRAVING:

Standard by Mfg. _____

OTHER: _____

DISCONNECTS (4.10):

- INCOMING DISCONNECT REQUIRED:
 - FUSED DISCONNECT BREAKER SWITCH
- OUTPUT DISCONNECT REQUIRED:
 - CONTACTOR FUSED DISCONNECT
 - BREAKER SWITCH
- MANUAL BYPASS REQUIRED

WIRING AND TERMINATIONS (4.11):

POWER CABLE ENTRY (4.11.7):

- TOP BOTTOM SIDE
- COMPRESSION LUGS REQUIRED WIRE SIZE: by MFG.

INSPECTION AND TESTING (4.12):

- MFG. STD. TESTS: WITNESSED NOT WITNESSED
- PRESHIPMENT SHOP WITNESSED INSPECTION
- ADDITIONAL TESTING REQUIRED:
 - On-site functional
 - _____
- CERTIFIED TEST REPORTS REQUIRED

DOCUMENTATION (4.14):

ELECTRONIC DOCUMENT FORMAT:

- DXF OTHER: MS

SUPPLIER TO PROVIDE:

- 1 REPRODUCIBLE PLUS
- 2 COPIES OF ALL DOCUMENTATION PLUS
- 2 COPIES OF THE OPERATING MANUALS

OTHER REQUIREMENTS:
