Division of Finance and Business Operations

Procurement & Strategic Sourcing
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September 16, 2014

Addendum #2 To
Request for Proposal
For Electrical Reliability Upgrades – Bid Pack #1: Project 003-245182 – Physics Building
090-245186 – Engineering Building
Dated Tuesday, August 26, 2014

The Addendum must be acknowledged on your lump sum bid.

NOTE: You must have attended a pre-bid conference in order to be eligible to bid on a particular project. Receipt of minutes or addenda without being at a pre-bid conference does not qualify your company to bid.

Please find the following clarifications:

1. Please find the attached Generator Information sheet, previously issued as Detailed Questionnaire. A revised form of proposal section 00300 shall not be issued, contractors shall use original forms included with RFP. Contractors shall provide the information required in the section 01010 Detailed Questionnaire. Attach this section 01010 Detailed Questionnaire to your Form of Proposal.

2. Please find the attached Commonwealth Associates, Inc. Addendum #2.

3. Please find drawings for the Physics Building and Engineering Building, located at the University's website at: www.procurement.wayne.edu and click on bid opportunities.

IMPORTANT- This is an addendum which MUST be acknowledged on your bid form

We will require two copies each of your lump sum proposals, vendor qualification questionnaire and your bid bond documents.

All questions concerning this project must be emailed to: **Robert Kuhn**, Procurement & Strategic Sourcing. Email: **ac6243@wayne.edu**, and copy **Valerie Kreher**, **Sr. Buyer**, at **ab4889@wayne.edu**.

Do not contact either FP&M or the Design Firm directly as this may result in disqualification of your proposal.

Thank you for interest shown in working with Wayne State University.

Robert Kuhn
Sr. Buyer

CC: Bill McVea (Project Manager), Valerie Kreher, Sr. Buyer, Attendee list.

Commonwealth associates, inc.
517-788-3000
www.cai-engr.com
P.O. Box 1124
Jackson, MI 49204-1124

Wayne State University

Physics and Engineering Building

Electrical Reliability Upgrades

Bid Package No 1

Addendum No 2 to WSU Projects 003-245182 Physics Building and 003-245186 Engineering Building

September 16th, 2014

The clarifications and additions to follow become part of the bid documents

Clarifications are as follows:

Specifications (Applicable to both 003-245182, Physics Building and 003-245186, Engineering Building).

Item 1. Table of Contents removed "Cable Tray" (The section was not needed nor included in the specifications)

Item 2. Added specification sections 260573 Overcurrent Protective Device Coordination Study

Item 3. Added specification sections 260574 Overcurrent Protective Device Arc Flash Study

Item 4. Section 263353, page 1 – clarified that the UPS systems are supplied by the contractor from the Owners preferred vendor.

Drawings

Project 003-245182 Physics Building

Reissued Drawings as follow: C-0, G-1, C-1, C-2, C-3, ES-1, E-2, E-3, E101, E102, E103, E104

New Drawings Issued as follows: Siemens Control Reference Drawings ABAC, SPEC1, SPEC2, SPEC3, 001, 001A, 001B, 001C, WSU Reference drawings E2.1 Building 300 Single Line.

Project 003-245186 Engineering Building

Reissued Drawings as follow: C-0, G-1, C-1, C-3, E-0, E102, E103, E103.1, E105.2

New Drawings Issued as follows: Siemens Control Reference Drawings ABAC, SPEC1, SPEC2, SPEC3, 001, 001A, 001B, 001C

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Drawing Itemized List:

Project 003-245182 Physics Building

Item 5. Drawing C-0

Updated issue summary.

Item 6. Drawing G-1

Added information for shut down scheduling and phasing requirements:

Physics: All shut down work is to be coordinated so that work is scheduled for Sundays or holidays. The premium portion only of wages associated with a shutdown is to be covered in the allowance that is to be included in the base bid. (For Physics this allowance is $20,000.) It will be the contractors responsibility to determine how to sequence the work, as well as the means and methods necessary to provide power to the building for any shut down exceeding 2 hours in duration, including providing any necessary equipment, (renting / operating generators, providing fuel, etc.) to support a building load of 1.0MW. Proposed sequencing and means and methods must be reviewed and approved by WSU and all costs to support the proposed sequencing and provide power for any shut down exceeding 2 hours is to be included within the base bid. Note: Contractors must provide at a minimum a seven (7) day advanced shut down notice for disruption of any utilities, and temporary enclosures shall be installed as security measures around cables between any temporary generator and a secure area at the building.

Item 7. Drawing C-1

Added notes/requirement for Ground Penetrating Radar and gas line relocation scope

Item 8. Drawing C-2

Added clarification for gas line relocation scope, added information indicating generator equipment must fit and be fully operational within existing nitrogen storage well.

Item 9. Drawing C-3

Added Section 8 to define steel/grating removal and replacement

Item 10. Drawing ES-1

Revised conduits and duct banks at building entry and main gear, added information indicating generator equipment must fit and be fully operational within existing nitrogen storage well.

Item 11. Drawing E-2

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Added notes reflecting added Second Floor UPS distribution panel and revised circuit numbers.

Item 12. Drawing E-3

Added notes reflecting added Second Floor UPS distribution panel and revised circuit numbers.

Item 13. Drawing E-101

Revised conduits and duct banks at building entry and main gear.

Item 14. Drawing E-102

Revised one line diagram reflecting added second Floor UPS distribution panel.

Item 15. Drawing E-103

Added Second Floor UPS distribution panel.

Item 16. Drawing E-104

Revised One line diagram reflected added second Floor UPS distribution panel.

Item 17. Added new reference drawings for Siemens Controls

Drawing ABAC

Drawing SPEC1

Drawing SPEC2

Drawing SPEC3

Drawing 001

Drawing 001A

Drawing 001B

Drawing 001C

Project 003-245186 Engineering Building

Item 18. Drawing C-0

Updated issue summary.

Item 19. Drawing G-1

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Added information for shut down scheduling and phasing requirements:

Engineering: All shut down work is to be coordinated so that work is scheduled for Sundays or holidays. The premium portion only of wages associated with a shutdown is to be covered in the allowance that is to be included in the base bid. (For Engineering this allowance is $25,000.) It will be

the contractors responsibility to determine how to sequence the work, as well as the means and methods necessary to provide power to the building for any shut down, including providing any necessary equipment, (renting / operating generators, providing fuel, etc.) to support a building load of 1.0MW for Engineering and 125 KW for EDC. Proposed sequencing and means and methods must be reviewed and approved by WSU and all costs to support the proposed sequencing and provide power for any shut down is to be included within the base bid. Note: Contractors must provide at a minimum a seven (7) day advanced shut down notice for disruption of any utilities, and temporary enclosures shall be installed as security measures around cables between any temporary generator and a secure area at the building.

Item 20. Drawing C-1

Added notes/requirement for Ground Penetrating Radar

Item 21. Drawing C-3

Added notation to detail A section view

Item 22. Drawing E-0

Added additional details, notes and requirements to define UPS room

Item 23. Drawing E-102

Updated panel and conduit schedules

Item 24. Drawing E-103

Updated panel and conduit schedules

Item 25. Drawing E-103.1

Updated panel and conduit schedules

Item 26. Drawing E-105.2

Added information and clarification for ATS-1 communication interface requirements

Item 27. Added new reference drawings for Siemens Controls

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Drawing ABAC (drawing common to engineering building)

Drawing SPEC1 (drawing common to engineering building)

Drawing SPEC2 (drawing common to engineering building)

Drawing SPEC3 (drawing common to engineering building)

Drawing 001

Drawing 001A

Drawing 001B

Drawing 001C

Item 28. Added new WSU reference drawing for Building 300 Single Line Diagram

Drawing E2.1

End of Addendum

Generator Information Required as Part of the Bid Documents

Required to be Submitted with Bids

1. Project name:_____
2. Generator Size:_____
3. Number of Generators:_____
4. Manufacturer of Generators that are included in bid:_____
5. Year Generator Engine Manufactured: _____
6. New Source Performance Standard (NSPS), Subpart III Emission Limit Tier (typically Tier 2 or Tier 3); _____
7. Emission Compliance specification for the specific engine stating engine's emission for Nitrogen Oxides (NOx), Carbon Monoxide (CO), Particulate (PM), and HydroCarbons HC or NMHC). See attached sheet for sample.
8. U.S. EPA Certificate of Conformity sheet specific to the engine or engine family of generator being submitted. See attached sheet for sample.

Power Generation

SAMPLE

2013 EPA Tier 2 Exhaust Emission Compliance Statement 1500DQGAF Stationary Emergency 60 Hz Diesel Generator Set

Compliance Information:

The engine used in this generator set complies with Tier 2 emissions limit of U.S. EPA New Source Performance Standards for stationary emergency engines under the provisions of 40 CFR 60 Subpart IIII when tested per ISO8178 D2.

Engine Manufacturer:	Cummins Inc
EPA Certificate Number:	DCEXL050.AAD-025
Effective Date:	05/01/2012
Date Issued:	05/01/2012
EPA Engine Family (Cummins Emissions Family):	DCEXL050.AAD (D283)

Engine Information:

Model:	QSK50-G5 NR2	Bore:	6.25 in. (159 mm)
Engine Nameplate HP:	2220	Stroke:	6.25 in. (159 mm)
Type:	4 Cycle, 60°V, 16 Cylinder Diesel	Displacement:	3067cu. in. (50.2 liters)
Aspiration:	Turbocharged and CAC	Compression Ratio:	15.0:1
Emission Control Device:	Electronic Control		

Diesel Fuel Emission Limits

D2 Cycle Exhaust Emissions

	Grams per BHP-hr			Grams per kWm-hr		
	NOx + NMHC	CO	PM	NOx + NMHC	CO	PM
Test Results - Diesel Fuel (300-4000 ppm Sulfur)	4.6	0.9	0.06	6.1	1.2	0.08
EPA Emissions Limit	4.8	2.6	0.15	6.4	3.5	0.20
Test Results - CARB Diesel Fuel (<15 ppm Sulfur)	4.2	0.9	0.05	5.6	1.2	0.07
CARB Emissions Limit	4.8	2.6	0.15	6.4	3.5	0.20

The CARB emission values are based on CARB approved calculations for converting EPA (500 ppm) fuel to CARB (15 ppm) fuel.
Test Methods: EPA/CARB Nonroad emissions recorded per 40CFR89 (ref. ISO8178-1) and weighted at load points prescribed in Subpart E, Appendix A for Constant Speed Engines (ref. ISO8178-4, D2)

Diesel Fuel Specifications: Cetane Number: 40-48. Reference: ASTM D975 No. 2-D.
Reference Conditions: Air Inlet Temperature: 25°C (77°F), Fuel Inlet Temperature: 40°C (104°F). Barometric Pressure: 100 kPa (29.53 in Hg), Humidity: 10.7 g/kg (75 grains H2O/lb) of dry air; required for NOx correction, Restrictions: Intake Restriction set to a maximum allowable limit for clean filter; Exhaust Back Pressure set to a maximum allowable limit.

Tests conducted using alternate test methods, instrumentation, fuel or reference conditions can yield different results.
Engine operation with excessive air intake or exhaust restriction beyond published maximum limits, or with improper maintenance, may result in elevated emission levels.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
2013 MODEL YEAR
CERTIFICATE OF CONFORMITY
WITH THE CLEAN AIR ACT OF 1990

OFFICE OF TRANSPORTATION AND AIR QUALITY
ANN ARBOR, MICHIGAN 48105

Certificate Issued To: **Cummins Inc.**
(U.S. Manufacturer or Importer)

Certificate Number: **DCEXL050.AAD-025**

SAMPLE

Effective Date: 05/01/2012

Expiration Date: 12/31/2013

Byron J. Bunker, Acting Division Director
Compliance Division

Issue Date: 05/01/2012

Revision Date: N/A

Model Year: 2013
Manufacturer Type: Original Engine Manufacturer
Engine Family: DCEXL050.AAD

Mobile/Stationary Indicator: Stationary
Emissions Power Category: 560<kW<=2237
Fuel Type: Diesel
After Treatment Devices: No After Treatment Devices Installed
Non-after Treatment Devices: Electronic Control

Pursuant to Section 111 and Section 213 of the Clean Air Act (42 U.S.C. sections 7411 and 7547) and 40 CFR Part 60, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following engines, by engine family, more fully described in the documentation required by 40 CFR Part 60 and produced in the stated model year.

This certificate of conformity covers only those new compression-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Part 60 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 60.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 1068 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Part 60. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void *ab initio* for other reasons specified in 40 CFR Part 60.

This certificate does not cover engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.

The actual engine power may lie outside the limits of the Emissions Power Category shown above. See the certificate application for details.