



Bids and Awards Committee for Goods and Services

October 21, 2020

BID BULLETIN NO. 1

This Bid Bulletin No. 1 is issued to modify or amend items in the Bid Document with Solicitation No.: 20-10-118 for the **Supply and Installation of Atomic Absorption Spectrometer**.

For the above-mentioned project, the following revisions in the bidding documents were effected:

1) Amendments to Section VII – TECHNICAL SPECIFICATIONS

<i>Before</i>	<i>Revised</i>
Procurement of One (1) unit Atomic Absorption Spectrometer	Procurement of One (1) unit Atomic Absorption Spectrometer
Specifications: Optics	Specifications: Optics
Wavelength range: 185 to 900 nm	Wavelength range: 185 to 900 nm
Monochromator: Aberration-corrected Czerny-Turner mounting	Monochromator: Aberration-corrected Czerny-Turner mounting
Number of grating grooves: 1800 lines / mm	Number of grating grooves: 1800 lines / mm
Focal length: 300 mm	Focal length: 300 mm
Bandwidth: 0.1, 0.2, 0.4, 0.7, 1.0, 2.0 nm (6-step automatically switching)	Bandwidth: within 0.1 to 2.0 nm with automatically switching
Detector: Photomultiplier tube	Detector: Photomultiplier tube
Configuration: Optical double beam (with Beam Manager)	Configuration: Optical double beam (with Beam Manager)
Background correction method: BGC-SR (high-speed self-reversal method) (185.0 to 900.0 nm)	Background correction method: BGC-SR (high-speed self-reversal method) (185.0 to 900.0 nm) or approved equivalent
BGC-D2(D2lamp method) (185.0 to 430.0 nm)	BGC-D2(D2lamp method) (185.0 to 430.0 nm)

Number of HC lamps:8-lamp turret, 2 lamps simultaneously lit, 1 for measurement, 1 warming up for next measurement 2 sockets for High- performance boosted lamp, litting one	Number of HC lamps:8-lamp turret, 2 lamps simultaneously lit, 1 for measurement, 1 warming up for next measurement 2 sockets for High- performance boosted lamp, litting one
Lamp mode: EMISSION, NON-BGC, BGC-D2, BGC-SR	Lamp mode: EMISSION, NON-BGC, BGC-D2, BGC-SR
Flame Type: Air-cooled premix type	Flame Type: Air-cooled premix type
Burner Head: Titanium 10 cm slot (5 cm titanium slot for N2O-C2H2 flame available as an option)	Burner Head: Titanium 10 cm slot (5 cm titanium slot for N2O-C2H2 flame available as an option)
Nebulizer: PTFE orifice, Pt-Ir capillary, ceramic impact bead (capable of handling hydrofluoric acid)	Nebulizer: PTFE orifice, Pt-Ir capillary, ceramic impact bead (capable of handling hydrofluoric acid) or approved equivalent
Chamber: Engineering Plastics	Chamber: Engineering Plastics
Positioning: Lateral/vertical manual adjustment	Positioning: Lateral/vertical manual adjustment
Angle adjustment:0 to 90°	Angle adjustment:0 to 90°
Flame type:Air-C2H2flame, N2O-C2H2flame	Flame type: Air-C2H2flame, N2O-C2H2flame capable
Data processing	Data processing
Parameter Setting: Wizard method	Parameter Setting: Wizard method
Measurement mode: Flame continuous method, flame micro Sampling method, furnace method, flame emission method	Measurement mode: Flame continuous method, flame micro Sampling method, furnace method, flame emission method
Repeat analysis: Up to 20 repetitions. Mean value, standard Deviation (SD) and coefficient of variation (RSD) display	Repeat analysis: Up to 20 repetitions. Mean value, standard Deviation (SD) and coefficient of variation (RSD) display
Automatic exclusion of deviant values by setting SD and %RSD	Automatic exclusion of deviant values by setting SD and %RSD

Baseline correction: Automatic correction of baseline drift by offset correction in peak height / peak area modes QA/QC: Select whether to continue or discontinue measurements based on results of evaluation on coefficient of correlation, %RSD, ICV.ICB, CCV.CCB, PB, LCS, SPK, PDS, and DUP	Baseline correction: Automatic correction of baseline drift by offset correction in peak height / peak area modes QA/QC: Select whether to continue or discontinue measurements based on results of evaluation on coefficient of correlation, %RSD, ICV.ICB, CCV.CCB, PB, LCS, SPK, PDS, and DUP
Power Requirements:220 AV, 60 Hz Ambient	Power Requirements:220 AV, 60 Hz Ambient
Temperature/humidity: 10 to 35°C, 20 to 80% (less than 70% when Temperature is higher than 30 °C)	Temperature/humidity: 10 to 35°C, 20 to 80% (less than 70% when Temperature is higher than 30 °C)
<p>Safety Feature:</p> <p>A. With Automatic fuel gas leak detector (when the power is turned on and when the flame is extinguished)</p> <p>B. With Automatic Air-NO₂ switching as C₂H₂ flow rate increases.</p> <p>C. Flashback detection</p> <p>D. Flame monitor (Automatic Gas Shut-off)</p> <p>E. Sudden power interruption detection and re-ignition safety features</p> <p>F. Drain tank level monitor</p> <p>G. Mechanism to prevent misuse of the burner.</p> <p>H. Flame-retardant materials</p>	<p>Safety Feature:</p> <p>A. With Automatic fuel gas leak detector (when the power is turned on and when the flame is extinguished)</p> <p>B. With Automatic Air-NO₂ switching as C₂H₂ flow rate increases.</p> <p>C. Flashback detection</p> <p>D. Flame monitor (Automatic Gas Shut-off)</p> <p>E. Sudden power interruption detection and re-ignition safety features</p> <p>F. Drain tank level monitor</p> <p>G. Mechanism to prevent misuse of the burner.</p> <p>H. Flame-retardant materials</p>
<i>WITH ACCESSORIES INCLUDED:</i>	<i>WITH ACCESSORIES INCLUDED:</i>
<p>1 Unit Hydride Vapor Generator</p> <p>Features:</p> <ul style="list-style-type: none"> ▪ Environmental standards prescribe the hydride generation method as one method of Arsenic, Selenium and Antimony analysis. 	<p>1 Unit Hydride Vapor Generator</p> <p>Features:</p> <ul style="list-style-type: none"> ▪ Environmental standards prescribe the hydride generation method as one method of Arsenic, Selenium and Antimony analysis.

<ul style="list-style-type: none"> ▪ HVG-1 permits the rapid and accurate quantitation of elements such as As, Se, Sb, Sn, Te, Bi and Hg at several-pbb levels. <p>Specifications:</p> <ul style="list-style-type: none"> ▪ Measurement method: continuous flow ▪ Sample consumption: 0 to 7 mL/min, variable ▪ Reagent consumption: 0 to 2.5 mL/min, variable ▪ Carrier Gas: Ar pressure: 0.32 MPa, consumption: 70 mL/min ▪ Dimension: 340 W x 220 D 	<ul style="list-style-type: none"> ▪ HVG-1 permits the rapid and accurate quantitation of elements such as As, Se, Sb, Sn, Te, Bi and Hg at several-pbb levels. <p>Specifications:</p> <ul style="list-style-type: none"> ▪ Measurement method: continuous flow ▪ Sample consumption: 0 to 7 mL/min, variable ▪ Reagent consumption: 0 to 2.5 mL/min, variable ▪ Carrier Gas: Ar pressure: 0.32 MPa, consumption: 70 mL/min ▪ Dimension: 340 W x 220 D
<p><i>ADDITIONAL ACCESSORIES:</i></p>	<p><i>ADDITIONAL ACCESSORIES:</i></p>
<p>Initial Supply of Argon Gas</p>	<p>Initial Supply of Argon Gas</p>
<p>Argon Regulator</p>	<p>Argon Regulator</p>
<p>1 Set Complete Pc System, Intel core-i5 compatible unit with 4GB RAM and 1 Terabyte hard drive. Multimedia ready with CD-ROM drive and 21.5” LCD color monitor, keyboard and mouse, Windows 10 OS.</p>	<p>1 Set Complete Pc System, Intel core-i5 compatible unit with 4GB RAM and 1 Terabyte hard drive. Multimedia ready with CD-ROM drive and 21.5” LCD color monitor, keyboard and mouse, Windows 10 OS.</p>
<p>1 Unit Deskjet Ink Printer, continuous</p>	<p>1 Unit Deskjet Ink Printer, continuous</p>
<p>1 Unit WATER PURIFICATION SYSTEM I.</p> <ul style="list-style-type: none"> ▪ Ultrapure Water Quality (Type 1) ▪ Product Water Resistivity :18.2 MΩ.cm @25°C ▪ Product Water TOC (with UV): < 5ppb ▪ Particulate count (>0.22um): < 1 particulate/ ml ▪ Bacteria Count: < 0.1 cfu/ml Flow Rate: L/min (Max) ▪ Hallow Cathode Lamp ▪ 1 pc Lead (Pb) ▪ 1 pc Iron (Fe) ▪ 1 pc Magnesium, (Mg) ▪ 1 pc Manganese, (Mn) ▪ 1 pc Cadmium, (Cd) 	<p>1 Unit WATER PURIFICATION SYSTEM I.</p> <ul style="list-style-type: none"> ▪ Ultrapure Water Quality (Type 1) ▪ Product Water Resistivity :18.2 MΩ.cm @25°C ▪ Product Water TOC (with UV): < 5ppb ▪ Particulate count (>0.22um): < 1 particulate/ ml ▪ Bacteria Count: < 0.1 cfu/ml Flow Rate: L/min (Max) ▪ Hallow Cathode Lamp ▪ 1 pc Lead (Pb) ▪ 1 pc Iron (Fe) ▪ 1 pc Magnesium, (Mg) ▪ 1 pc Manganese, (Mn) ▪ 1 pc Cadmium, (Cd)

<ul style="list-style-type: none"> ▪ 1 pc Chromium, (Cr) ▪ 1 pc Sodium, (Na) ▪ 1 pc Zinc, (Zn) ▪ 1 pc Arsenic, (As) ▪ 1 bottle/each Standards for: Lead, Iron, Magnesium, Manganese, Cadmium, Chromium, Sodium, Zinc. 	<ul style="list-style-type: none"> ▪ 1 pc Chromium, (Cr) ▪ 1 pc Sodium, (Na) ▪ 1 pc Zinc, (Zn) ▪ 1 pc Arsenic, (As) ▪ 1 bottle/each Standards for: Lead, Iron, Magnesium, Manganese, Cadmium, Chromium, Sodium, Zinc.
1 Set Air Filter	1 Set Air Filter
1 Unit Silent Type Air Compressor	1 Unit Silent Type Air Compressor
1 Set Hood and Ducting works	1 Set Hood and Ducting works
1 Unit Acetylene Gas	1 Unit Acetylene Gas
1 Unit Acetylene Regulator"	1 Unit Acetylene Regulator"
After Sales Services: Guaranteed availability of supplies and spare parts for at least ten (10) years	After Sales Services: Guaranteed availability of supplies and spare parts for at least ten (10) years; At least three (3) support engineers with training certificate available within Metro Manila.
Free on-site training included	Free on-site training included
Warranty: Two (2) years for parts and services; One (1) Preventive Maintenance within the warranty period	Warranty: Two (2) years for parts and services; One (1) Preventive Maintenance within the warranty period

This Supplemental Bid Bulletin No. 1 shall form part of the Bidding Documents. Any provision in the Bidding Documents inconsistent herewith is hereby amended, modified and superseded accordingly.

For guidance and information of all concerned.

Very truly yours,



JENNIFER C. BERMUDEZ
BAC Chairperson – for Goods and Services