

National Research Institute for Chemical Technology

Federal Ministry of Science and Technology

Science and Technology Education Post-Basic Project

Credit No: 4304-UNI

Invitation for Bids (IFB)

Supply and Installation of Analytical Equipment and Equipment for the establishment of organic based fertilizer plant

IFB NO. NARICT/STEP-B/G/ICB/1/11

New Deadline for Submission of Bids: 2.00pm, Wednesday, August 3rd 2011

New Bid closing Date: Wednesday, August 3, 2011 at 2.00pm

Addendum No.1 to Bid Document

In accordance with Section I, Clause 8 of the instruction to Bidders (ITB) at page 12 of the bidding document, this Addendum is to correct the following specifications in Part 2, Section VI. Employer's Requirements

Section VI, Lot 1, Page 2 -5, Item No. 1	Replace "NUCLEAR MAGNETIC RESONANCE (Cap NMR Probe) with "FT – NMR Spectrometer 600 MHz, 14.1 Telsa".
Section VI, Lot 1, Page 2-5, Item No. 1	Under Detailed Specifications: Magnetic Specification line 2 replace "Central Field: 9.4 Telsa (600MHz ¹ H)" with "Central Field 14.1 Telsa (600 MHz)".
Section VI, Lot 1, Page 2-6, Item No. 1	Under Detailed Specifications: LIQUID NITROGEN DETAILS, line 6, replace "Nitrogen hold-time in static condition: 21 days" with "Liquid Nitrogen Hold time: at least 2 weeks".

<p>Section VI, Lot 1, page 2-6, Item No.1</p>	<p>Under Detailed Specifications: LIQUID HELIUM DETAILS, line 6-7 replace “Helium hold time during normal operation (static magnetic fields, leads withdrawn): 365 days” with “Liquid I Helium hold time: Liquid Helium hold time at least 340 -365 days (boil off rate should be low)”.</p>
<p>Section VI, Lot 1, Page 2-6, Item No.1</p>	<p>Additional detailed specification: “Automatic Helium level Monitoring:</p> <ul style="list-style-type: none"> ▪ Auto shimming (for 1H/2H) and gradient base experiment facility ▪ Workstation: Fast state of Art Work station (preferably PC) with at least 80GB Hard Disk ▪ Window NT/2000/XP/Linux operating system. Complete software for 1D/2D/3D/ data acquisition and processing. ▪ LaserJet Printer ▪ Air compressor: Oil free Air Compressor complete with dryer suitable for 600MHz NMR system Anest Iweta or equivalent ▪ UPS 5KVA capacity with one hour back up time ▪ Contact for refilling of liquid helium for 2 years (cost to be included in the quotation) ▪ Liquid Helium required for initial charging of the magnet to be supplied by the supplier (cost to be included In the quotation) ▪ Dewars or equivalent for Liquid Nitrogen 50ltrs capacity (2 Nos.)
<p>Section VI, Lot 1, page 2-15, Item No.13</p>	<p>Replace “MILLIPORE WATER DISTILLER REVERSE OSMOSIS” 1 1, page 2-15, j with “Water Distiller Reverse Osmosis”,</p>
<p>Section VI, Lot 1, page 2- 15 Item 15</p>	<p>Under VACUUM DRYER, Bullet 10, replace “Condenstor” with “Condenser”,</p>

Section VI, Lot 1, page 2-23, Item 24	Replace Analytical Weighing Balance (5 Decimal Places)” with “Analytical Weighing Balance”.
Section VI, Lot 1, page 2-23, Item 24	Replace bullets 1-3 and nos. 1&2: “5 decimal places, least count 0.01mg, 0.00001mg, Capacity 25kg, capacity -150g, 1.c.-0.00001g (1 mg), capacity -30kg, 1.c -0.5g” with ‘210g x0.0001g (readability: 00001g)
Section VI, Lot 1, page 2-24, Item 29	Replace “POLYMER MELT FLOW INDEXER-LM14000 SERIES/DYNISCO with “POLYMER MELT FLOW INDEXER”
Section VI, Lot I, page 2-24 a 2-25, Item 29	Under detailed Specifications, Line 1- 17 replace Ambient I temperature; 20°C ASTM D123B & ISO 1133 -2005 standards, Operating temperature; 425 °C Temperature control; ±0.1°C temperature sensor; 4 -wire RTD, Timer accuracy; 0.001 second, Digital encoder displacement accuracy; ±0.25mm, over 25.4mm, Weights; stainless steel, ±0.5 % Display; 4-line by 20- character vacuum fluorescent, keypad; membrane type, Parallel I port; Epson/IBM compatible or equivalent, Serial port; R S 232, Overall dimensions; 300mm(w) x 350mm(D) x 570mm(H), Net weight; 15kg, Electrical; 120/60HZ or 230vac/50Hz ±10%, Power consumption; 40w max. 60w typical at set point, Shipping weight; 21kg” with “Fully automatic & Compliance with ISO 1133 and ASTM D -1238 Methods A Si B; Automatic calculation of Melt Flow Index , Melt Flow Rate, Melt Volume Rate and Melt density/viscosity using auto flow rate timer; Auto weight loader; Auto cut off device. Power Supply;- 230V AC single phase 50 Hz; Temperature Controller ; - Microprocessor based Digital PID controller with range up to 400%, resolution of 0.1°C & accuracy of +/- 0.1°C Timer: – Microprocessor based Digital Timer with range up to 999 .9 sec & facility of selecting auto cycling with buzzer indication starting 4 sec early to get ready for sample cut. Standards Weights: – 1kg, 2.16kg, 3.8kg, 5kg hard chrome plated. Accessories: Stainless Steel Orifice, Piston, Spanner, Plumb line, Material charger, orifice cleaner, cylinder cleaner, Barrel cleaner tool, sample cutter; Automatic Cut off Device with Digital Timer, Paint;- Powder Coated.
Section VI, Lot 1, Pages 2-25 & 2-26, Item 31	Hydraulic Press: Specifications, Line 1-7, replace “Main capacity (Ton) 250, Forming capacity (10s-40s); 4”-8”, system pressure (kg/cm ²): 250, oil tank capacity (L); 1200, Motor (Hp); 50, one cycle time (sec); 50-110, N.W (kgs) 36000” with: “Extend rate (sec): 10-20

	<p>Retract rate (sec): 10-15</p> <p>No eject system is required</p> <p>Scope of supply: Main equipment and protective shield</p> <p>Corrosion factor? There is none presented by manufacturers</p> <p>Cylinder stroke is not limited to 153mm but 6” is required</p> <p>Main capacity of the system hydraulic pressure; 30 tons (Min) – 60 tons (Max)</p> <p>Cycle time (sec); 50 -110</p> <p>Heated Platens temp (°F): 650 – 800</p> <p>Platen size (inches); 15 x 15</p> <p>Thermostatic Digital Temperature control: Yes</p> <p>Daylight opening (inches): 0-12</p> <p>Automatic platen cooling</p> <p>Cycle time (sec): 50 – 110”</p>
<p>Section VI, Lot 1, Pages 2-15, Item 13</p>	<p>Under MILLI PORE WATER DISTILLER REVERSE OSMOSIS specifications, Line 2: Replace “Accommodates flask sizes’ 10ml to 2L “with “Required flow rate/output: 50L/hour’.</p>
<p>Section VI, Lot 1, page 2-25, Item 13</p>	<p>Under MILLIPORE WATER DISTILLER REVERSE OSMOSIS, Additional Specifications</p> <p>“Automatic descaling mechanism</p> <p>Steam consumption = 102% under air pressure in the 0.1 0.25Mpa</p> <p>The equivalent could directly use natural water/pip e-borne water</p> <p>Snail style spiral pipe evaporation with outside cooling pipe</p>

	<p>Grounded heating element to prevent electrical shock</p> <p>Automatic temperature controller</p> <p>Maintains oven temperature up to 220°C C± 1°C</p> <p>Automatically turns off power to oven if thermocouple fails or disconnects, CE complaint</p> <p>Reservoir tank capacity of 20, 000L with metal base stand”.</p>
Section VI, Lot 1, Page 2-25, Item 28	Replace “HARDNESS TESTER – NEXUS 4500 SERIES/VICKERS” with “Hardness Tester”.
Section VI, Lot 1 pages 2- 25, Item 28	Under MILLIPORE WATER DISTILLER REVERSE OSMOSIS Additional Specifications: “with centile vered indenter and Motorized automatic operation”.

Signed

Dr. A.S. Agbaji

Project Manager

For: Director- General/CEO

Science & Technology Education Post-Basic (Step-B) Project

National Research Institute for Chemical Technology (NARICT)

Kilometer 4, Old Kano Road, Basawa

P.M.B 1052, Zaria, Kaduna State

Tel: +234-08037021156, +234-08037443817

Email: narictstepb09@gmail.com