

MINUTES OF PRE BID MEETING

| | |
|------------------------|---|
| Project | : Revival of BCG Vaccine Laboratory, Chennai |
| Agenda | : Pre Bid meeting for Wastewater Treatment plant at BCGVL. |
| Tender | : NPI/110729/WTP/TD/08; Revision – 05; August 2013 |
| Venue | : HLL Lifecare Limited, Chennai |
| Date of Meeting | : 23rd September, 2013 |
| Issued by | : Vice President (Projects), HLL Lifecare Limited, Chennai |
| Issued On | : 24th September 2013 |

The Pre Bid meeting was conducted on 23/09/2013 at HLL Lifecare Limited, Chennai to clarify the tender query of vendors on Wastewater Treatment plant for revival of BCG Vaccine Laboratory, Guindy project. This Pre Bid minutes will be the part of original tender. Hence all the vendors shall strictly adhere to the clarifications mentioned in this Pre Bid minutes while submitting their bid.

The query raised by the vendors and subsequent clarification are as follows.

| Sl. No | Page No / Ref No. | Query Raised by Bidders | Clarification by HLL |
|--------|-------------------|--|--|
| 1 | 49 / 1.c | Kindly elaborate the kind of Software update. | Any installed software update during Defect Liability Period and CMC period will be free of cost. |
| 2 | 49 | Comprehensive Maintenance shall be for 2 years or 5 years to be quoted? | Comprehensive Maintenance shall be of 5 years as mentioned in Tender. |
| 3 | 93/ 2.3.3 .11 | DMF – Auto or Manual? Please mention the velocity, MOC, Backwash pump required separately? | Kindly refer the specification as provided in Bill of Quantity (BoQ) for filtration system in ETP (page 142) and STP (Page 149). (refer the P&ID) |

| Sl. No | Page No / Ref No. | Query Raised by Bidders | Clarification by HLL |
|--------|-------------------|---|--|
| 4 | 93 | ACF – Auto or Manual? Please mention the velocity, MOC, Backwash pump required separately? | Kindly refer the specification as provided in Bill of Quantity for filtration system in ETP (page 142) and STP (Page 149). (refer the P&ID) |
| 5 | 141 & 145 / 2.0 | SS Motorized screen of 2mm shall be of Auto or Manual mode of operation? | This is an automatic SS motorized screen. Size of the screen should be proper fit to screen chamber to ensure the effluent passes only through screen for further process. |
| 6 | 150 | Please confirm MOC of Valves in UPVC piping and MS piping. | MOC of Valves in UPVC piping and MS piping shall be UPVC and MS respectively. |
| 7 | 90/ 2.3 | Inlet Water analysis shall be in detailed form; we need Nitrates, Total Kjeldahl nitrogen, Phosphorous. | Nitrates, Total Kjeldahl nitrogen, Phosphorous is not present in effluent. |
| 8 | | Total Dissolved Solids is mentioned as 2000 ppm, but SO4 and Cl2 together constitute 3835 ppm, please confirm the TDS value? | All values of waste water are as per Tender document, vendor shall consider TDS as 2000 ppm. |
| 9 | 90/2.3.1 | Output TDS value cannot be guaranteed unless Confirming the inlet TDS value or else RO system has to be envisaged additionally. | No RO system to be considered and however vendor will be responsible to meet the for final discharge water quality as per pollution control board norms. |
| 10 | | Please confirm the Calcium and Magnesium value as this may result in Calcium Chloride after addition of Barium chloride. | Calcium and Magnesium is not present in the effluent. |
| 11 | | Is there any possibility of oil, Fats & Grease in the effluent? | Though there is no possibility of Oil, grease and fats in effluent, but still vendor shall consider 0.01% and quote accordingly. |

| Sl. No | Page No / Ref No. | Query Raised by Bidders | Clarification by HLL |
|--------|-------------------|--|--|
| 12 | 93 | Stage wise reduction in anaerobic tank, MBBR tank – 1 & 2 is not possible, since tank sizes are freezed. We can guarantee the reduction if we design and arrive at the tank sizes. | Dimension of Anaerobic & MBBR tank mentioned in the tender (Layout plan drawing) is indicative only. However Vendors shall consider the dimension as per their own design to achieve the desired stage wise reduction and quote accordingly. Vendor should also ensure that final water quality of ETP & STP discharge is as per TN Pollution Control Board norms. |
| 13 | General | Clarifiers mentioned, whether it is Lamella Clarifiers? – Please confirm | Clarifiers mentioned are Lamella Clarifiers. |
| 14 | | MOC of Lamella Clarifiers to be confirmed. | MoC for Clarifiers should be as per tender specifications and Lamella Clarifier will be of Poly Propylene (PP). |
| 15 | | For Civil Works, Work Contract tax should be inclusive or exclusive in the supply price? | For all items in BoQ quotation shall inclusive of all applicable taxes. There is no provision for separate tax. |
| 16 | | Incomer Cables - Transformer/ Substation to MCC Room distance shall be provided. | Incomer cable to the Main control panel will be provided by Client. However, from control panel to all other equipments will be in the scope of Vendor, for which no additional cost will be paid. |

| Sl. No | Page No / Ref No. | Query Raised by Bidders | Clarification by HLL |
|--------|-------------------|---|--|
| 17 | | Kindly provide the specification for MCC panel and PLC panel. | <p>MCC panel shall be metal clad totally enclosed rigid floor/wall mounted, air insulation, cubical type suitable for operation on 3 phase / single phase, 415/230 volts 50 Hz.</p> <p>Panel shall be designed & built as per IS standards. However vendor has to get approval for HLL and NNE for MCC/PLC panels before starting the fabrication works.</p> <p>Cable entry for MCC panel should be from Top, Access for feeders and termination shall be from front and all necessary protection required for incomers and feeders shall be considered.</p> <p>Selection of switch gears protection devices shall be based on the calculations provided by vendor and same shall be approved by HLL and NNE.</p> <p>MCC construction shall be of standard type 3A or 3B.</p> <p>MCC panel shall be placed on 75mm MS channel and operating height of the panel shall be 2075mm at maximum.</p> <p>Double earthing shall be provided for MCC panel and earth bus (GI) shall run throughout the panel</p> |
| 18 | | Whether earthing above and below Ground is in our scope. If Yes, please mention the MOC of earthing material. | <p>Earth Pit will be in client scope and the connection from the equipment to earth pit will be scope of Supplier. And double earthing shall be provided for all equipment with copper strip/ GI strip as per CEIG /CEA norms.</p> |

| Sl. No | Page No / Ref No. | Query Raised by Bidders | Clarification by HLL |
|--------|-----------------------|---|---|
| 19 | | Electrical & Instrument - Vendor list shall be provided. | As per annexure 1 (As this is the standard approved makes of electrical items. Kindly refer for the makes list for required items) |
| 20 | | Kindly give the Electrical & Instrumentation scope and specification for the plant. | Incoming feed to the control panel will be provided by Client. However, from control panel further electrical distribution will be in the scope of Vendor, for which no additional cost is applicable. |
| 21 | Page 142/ Item No. 13 | Decanter System to handle sludge for an ETP 20m ³ /day or equivalent sludge. Can we provide alternate 'filter press for the small capacity | The Decanter system should be provided with specification as per Tender and with minimum of 80% dryness. |
| 22 | | Details of Claire Fontaine required | <u>Website:- www.metsiet.com;</u> <u>Mail Id :- sales@metsiet.com;</u> |
| 23 | | For which equipments do you require PLC | PLC mentioned in the standard make list is not intended for any specific requirement of ETP. However vendor can consider PLC/Micro controller or any other automation as per their design and tender requirement. |
| 24 | | There is a mention of 40 mm MS in Legend and 40 mm UPVC for air pipeline in the layout. What is actual requirement | For wetted area of ETP & STP, UPVC pipe and fitting shall be considered whereas for remaining area MS pipes and fitting to be considered. |
| 25 | 155/ 2.8 | Indigenous FRP Tanks will be provided | Vendor to provide items as per Tender make. |

| Sl. No | Page No / Ref No. | Query Raised by Bidders | Clarification by HLL |
|--------|----------------------|---|---|
| 26 | 157 & 159 | Make of Coarse or Fine Screen Chamber, MBBR tanks and Air Grid - Make doesn't apply because they are fabricated products. | Approved make material shall be used for Fabrication. |
| 27 | 157 | MOC of Dosing tanks to be mentioned | Dosing tanks should be made of HDPE / PP. |
| 28 | 157 | Make of Sludge Decanter System | Alfa Laval / Claire-fontain can be considered. |
| 29 | | Aerobic Tank | Supplier to consider Aerobic Tank and there will be only traces of Methane generated. So the vent is considered as part of the tank for supply. |
| 30 | | Requirement of Sludge transfer pump | Vendors to consider sludge transfer pump as per Tender. |
| 31 | | Payment Terms | Payment Terms will remain as specified in Tender. |
| 32 | | Performance Bank Guarantee (PBG) | PBG will be valid for 20 Months from the date of award of work |
| 33 | | CMC | Vendor shall consider 16 hours of operation in a day for CMC. |
| 34 | | Years to be considered for submission of Financial Documents. | Vendor to submit Financial documents for last 3 years. (2012-13, 2011-12, 2010-11) |
| 35 | Page No :- 148 - 149 | In tender document the page no. 148 & 149 is repeated. Whether it is typographical error or we need to quote for twice? | In tender document the page no. 148 & 149 is repetition of Page No: - 145 - 146. Hence page No: - 148 - 149 is not to be considered. |

| Sl. No | Page No / Ref No. | Query Raised by Bidders | Clarification by HLL |
|--------|-------------------|--|---|
| 36 | | For online monitoring shall we consider the make of Forbes Marshall? Kindly confirm. | Vendors to consider online monitoring as per Tender. |
| 37 | | Kindly scope under clearance from TNPCB. If the CTE is already available, please share the details with us with conditions prescribed by the Board. | No CTE is obtained. The Vendor will be responsible to get the clearance from TNSPCB for the compliance before handing over the plant to the client. |
| 38 | | Kindly provide the below details for civil works Soil data . | AS PER ANNEXURE 02 |
| 39 | | There is a drain pit indicated in the P & ID provided by you along with the tender document. But the disposal pump for the pit water is not indicated in P & ID and also in the BOQ. Kindly confirm. | We are using the decanter for sludge moisture removal. Hence we doesn't require pump for the drain pit. |
| 40 | | Confirm the type of automatic fine screen, whether it is hyperbole or online screen type? | Automatic fine screen is Online screen type |



List of Attendees

Project : Revival of BCG Vaccine Laboratory, Chennai
Agenda : Pre Bid meeting for Wastewater Treatment Plant at BCGVL
Venue : HLL Lifecare Limited, Chennai
Date of Meeting : 23rd September, 2013

| Name | Organisation | Email and Phone Number | Signature |
|------------------------|------------------------------------|--|-------------|
| V. BAENMURUGAN | ENVIRO SERVICES PVT CO | enviro1995@gmail.com 9841008835 | |
| K. VINAY KUMAR | WASTEWATER EPINE TECH. LTD | admchn@wastewater epine.com 9840985580 | |
| S. M. RAJENDRAN | SBA Enviro Systems Pvt. Ltd | sbaenviro@gmail.com 9884726594 | |
| P. Sankara Subramanian | Water Systems I Pvt. Ltd | nkrishnan.wsi @ gmail.com 8608540535 | |
| Dr: T. F. Hassan | B.C.L. VL | H MANIKFAN @ 44400.2011@ 9443246580 | |
| ARUL JINU. L | ENVIAN | Sales@envian.in In30@envian.in -2474883/24 | |
| SINDHUJA . P . B . | SWARAJ EQUIPMENT PVT LTD | swarajequipment @gmail.com 9940211749 | |
| S. SURESH. | HLLifecare Ltd. Chennai | sureshs@hllifecarell.com | 23/9/13 |
| P. Subramanian. | Goodcare Enviro Systems (P) Ltd | Projects gces@ gmail .com | 23/9/13 |



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| Name | Organisation | Email and Phone Number | Signature |
|------------------------------------|------------------------------|--|-----------------------------|
| R. ANANDAN | BCUVL | bcganand@yahoo.com 9840455393 | |
| K. Arun Kumar | Aqua Matrix System Pvt. Ltd | PROPOSAL@aquamatrix.in kprathan@aquamatrix.in 8754464765 / 2442 4760 | K. Arun Kumar |
| A. Mungesan | ?? | 9444444108 | |
| A.S. MOHAMMED AMEEN | Aqua Design India Pvt. Ltd | 9940109443 aqua@aquadesign.in | |
| C. Palani Pandian S. Elarajovon | Eco Care Engineering Systems | 9566005588 9962035588 eco.care.cp@gmail.com | |
| MYTHILI R. | HLL | 9500120812. | |
| K. NATARAJAN | HLL | 8056342272 | |
| Dayananda Reddy | NNE | 9901699885 dayanandareddy@rediffmail.com | |
| Abhijeet Kumar | HLL | 9791012283 | Abhijeet Kumar 23/09/13. |

ANNEXURE 01

LIST OF APPROVED MAKE FOR ELECTRICAL ITEMS

| Sr. No | Description | Recommended List of makes | | |
|--------|---|---------------------------|-----------|-------------------|
| 1. | MV PANEL | MEGAWIN | SIEMENS | ABB |
| 2. | MV VOLTAGE SWITCHGEAR | MEGAWIN | SIEMENS | ABB |
| 3. | LOW VOLTAGE SWITCHGEAR | SIEMENS | SCHNEIDER | L & T |
| 4. | AIR CIRCUIT BREAKER AND MCCBs | SIEMENS | SCHNEIDER | L & T |
| 5. | PROTECTION RELAY (NUMERICAL) | SIEMENS | ABB | AREVA |
| 6. | PROTECTION RELAY (ELECTRO-MAGNETIC) | ABB | AREVA | --- |
| 7. | DISTRIBUTION TRANSFORMER (DRY TYPE) | VOLTAMP | UNIVERSAL | ABB RECONS |
| 8. | ON LOAD TAP CHANGER | OLG | CTR | EASUNMR |
| 9. | ANALOG METERS | RISHAB | AE | ---- |
| 10. | DIGITAL METER/LOAD MANAGERS / SMART DEMAND CONTROLLER | SCHNEIDER | SIEMENS | EAPL |
| 12. | KWH METER | SCHNEIDER | SIEMENS | ---- |
| 13. | HT TERMINATION KIT | RAYCHEM | 3M | ---- |
| 14. | INDICATING LAMPS/PUSH BUTTONS (LED TYPE) | SIEMENS | SCHNEIDER | TECKNIC |
| 15. | SELECTOR SWITCHES | SIEMENS | SALZER | KAYCEE |
| 16. | BREAKER CONTROL SWITCH | KAYCEE | SIEMENS | SAILZER |
| 17. | AUXILIARY RELAY | OEN | OMRAN | PLY |
| 18. | HT CT & PT -RESIN CAST | AE | PRAGATI | ---- |
| 19. | LT-CTs & PTs -RESIN CAST | AE | KAPPA | ---- |
| 20. | CONTROL FUSE AND FUSE FITTING | SIEMENS | SCHNEIDER | L & T |
| 21. | ELECTRONICS TIMER | SIEMENS | SCHNEIDER | EAPL |
| 22. | PVC WIRES-1100V (FRLS GRADE) | FINOLEX | POLYCAB | HAVELLS ANCHOR |
| 23. | SPACE HEATER | GIRISH & CO | TELELAC | ---- |

| Sr. No | Description | Recommended List of makes | | |
|--------|--|---------------------------|-------------------|-----------|
| | | | | |
| 24. | ANNUCIATION | MINILEC | TRINITI | ---- |
| 25. | DIN CHANNEL/PVC CHANNEL /PVC CLAMP/BUNCHING TAP | LOCAL MAKE | ---- | ---- |
| 26. | BUSBAR | INDILCO | NALCO | JINDAL |
| 27. | HOOTER | MINILEC | TRINITI | ---- |
| 28. | EARTH LEAKAGE RELAY | PROK DEVICES | MINILEC | ---- |
| 29 | HT CABLE | UNIVERSAL | POLYCAB | CCI |
| 30. | CAPACITOR (GAS FILLED TYPE) | EPCOS | SCHNEIDER (MEHAR) | ABB |
| 30. | LT POWER AND CONTROL CABLES | UNIVERSAL | POLYCAB | HAVELLS |
| 32. | LT FLEXIBLE , FLEXI-BREAD AND SCHEILDED CABLES | LAPP | HELUKABEL | ---- |
| 34. | APFC RELAY | EPCOS | ABB | L & T |
| 35. | CABLE GLANDS (SINGLE /DOUBLE COMPRESSION) | DOWELLS | JAINSON | COMET |
| 36. | PVC GLAND | LAPP | HENSAL | ---- |
| 39. | MCB AND MCB DISTRIBUTION BAORS WITH 10 KA FAULT LEVEL FOR LIGHTING AND POWER | LEGRAND | SIEMENS | SCHNEIDER |
| 40. | DOMESTIC TYPE MODULAR SWITCH & SOCKET OUTLET, FAN REGULATOR | LEGRAND | MK | CRABTREE |
| 41. | INDUSTRIAL RECEPTACLES | MANNEKS | CLIPSAL | LEGRAND |
| 42. | INDUTRIAL TYPE SOCKET OUTLET, (PENTRA TYPE) | LEGRAND | BCH | ABB |
| 43. | LIGHT FIXTURE (COMMERCIAL & DECORATIVE) | WIPRO | PHILIPS | BAJAJ |
| 44. | LIGHT FIXTURE (INDUTRIAL IP 65) | WIPRO | PHILIPS | BAJAJ |
| 45. | LIGHT FIXTURE (CLEAN ROOM) | WIPRO | PHILIPS | BAJAJ |
| 46. | CEILING FANS | CROMPTON | USHA | BAJAJ |
| 47. | EXHAUST FANS | CROMPTON | USHA | ALMONARD |
| 48. | WALL MOUNTED FANS | CROMPTON | USHA | BAJAJ |
| 49. | MS CONDUIT AND ACCESSORIES | NIC | STEEL CRAFT | AKG |

| Sr. No | Description | Recommended List of makes | | |
|--------|---|---------------------------|---------------|-------------|
| 50. | PVC FRLS CONDUITS & ACCESSORIES (HEAVY DUTY ONLY) | NELCO | VIP | AKG |
| 51. | PERFORATED CABLE TRAYS/ LADDER CABLE TRAYS | RK ENGINEERING | PATNI | UNIVERSAL |
| 52. | PVC TRUNKING | LEGRAND | MK | OBO |
| 53. | METAL TRUNCKING | LEGRAND | OBO | MK |
| 54. | UPS | EMERSON | APC HIRAL | SOCOMEK |
| 55. | BATTERIES | EXIDE | AMCO-YUASA | PANASONIC |
| 56. | MOTOR STARTERS | SIEMENS | SCHNEIDER | ----- |
| 57. | VOLTAGE MONITOR | MINILEC | SIEMENS | ----- |
| 58. | HAND DISINFECTANT | TECHNOCRAT | SANITT | ALEGRO |
| 59. | HAND DRYER | TECHNOCRAT | AQUA AIR | ALEGRO |
| 60. | AIR CURTAIN | BEACON | ALMONARD | FAB TECH |
| 61. | FLY INSECT KILLER | TECHNOCRAT | PEST-O-FLESH | ----- |
| 62. | FLAME PROOF LIGHT FITTINGS AND ACCESSORIES | SUDHIR SWITCHGEAR | FCG | R-STAHl |
| 63. | NETWORK WIRE & NETWORK SWITCH | CISCO | ENTERASYS | D LINK |
| 64. | OFC CABLE | MOLEX | SYSTIMAX | AMP |
| 65. | TELEPHONE WIRE | FINOLEX | POLYCAB | ANCHOR |
| 66. | EPABX SYSTEM | NEC | SIEMENS | ALCATEL |
| 67. | ANALOUGE TELEPHONE | BINATONE | ALCATEL | SIEMENS |
| 68. | DIGITAL TELEPHONE | NEC | ALCATEL | SIEMENS |
| 69. | CCTV SYSTEM | HONEYWELL | SIEMENS | ZICOM |
| 70. | SANDWICH BUSDUCT | C & S | LEGRAND | GODRAJ |
| 71. | CHEMICAL EARTH PIT | ASHLOK | SM INDUSTRIES | JEF TECHNO. |
| 72. | LIGHTNINGPROTECTION SYSTEM | CIPROTEC | INDLAC | ALLTEC |
| 73. | SURGE PROTECTION DEVICE | LEGRAND | HAGER | SIEMENS |
| 74. | OUTDOOR PUSH BUTTON STATION | HANSU | FCG | VAISHNO |

| Sr. No | Description | Recommended List of makes | | |
|--------|--------------|---------------------------|-------|-------|
| 75. | TTB | SIMCO | IMP | CANDS |
| 76. | NEUTRAL LINK | LOCAL MAKE | ----- | ----- |

ANNEXURE 02

Soil data of BCG vaccine Laboratories

1. The area explored has got top soil of 0.8 to 1.5 M is fill of gravelly soil. The underlying layer is disintegrated rock with medium rock appearing at depths varying from 2.0 to 5.6 M below ground level. Water table was met with at 0.9 to 1.05M below ground level at the time of exploration.
2. For the proposed structure shallow foundations can be given at any depth from 1.5M, resting the foundation on the disintegrated rock layer with an SBC of 3.5 kg/cm²
3. When the foundations are placed on the medium rock layer the SBC that could be adopted is 10.0 kg/cm².
4. The settlement would be within 25mm
5. Over excavations in the foundation trenches should be refilled by lean concrete in disintegrated rock and by 1:3:6 concrete in medium rock.
6. Suggested excavation procedure should be adopted while undertaking the construction.