



**CENTRAL INSTITUTE OF MINING & FUEL RESEARCH**  
(CSIR, Ministry of Science & Technology, Govt. of India)  
H.Q.: Barwa Road Campus, Dhanbad – 826 015 (Jharkhand), India

No.CIMFR/PUR/14(7)2007

Date:07.03.2008

**NOTICE INVITING TENDER**

Director, CIMFR invites sealed tenders (In two Bid System) for supply, installation and commissioning of the following stores.

Item No.	Particulars of Item	Qty.
1.	Supply of equipment & goods (active & passive components), laying of cables, installation, commissioning, integration & demonstration of single mode Fibre Optic based Campus Wide Networking: on Turnkey basis at CIMFR, Barwa Road Campus	01 complete unit
2.	Flat Panel XGA Professional Plasma with PDA and Visualiser and Software.	02 Sets
3.	UV Visible Spectrophotometer	01 set
4.	ICP-Atomic Emission Spectrometer	01 Set
5.	Multi Channel Seismographs	02 sets
6.	Microtrap VOD Meter / Data Recorder with VOD Cable	01 set

**Last Date of Submission : 07.04.2008 Time: Up to 4.00 P.M.**

**Last Date of Opening : 08.04.2008 Time: 10.00 AM onwards**

**Details of the Tender Document is available at [www.cmriindia.nic.in](http://www.cmriindia.nic.in)**

**☎ : 0326- 2388306/2388319**

**☎ : 0326- 2203156/2381210**

**Stores & Purchase Officer**



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H.Q.: Barwa Road Campus, Dhanbad – 826 015 (Jharkhand), India

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Item No.	File No.	Particulars of Item	Qty.	T.D. Fee in DD*	EMD in DD/BG/BC
1.	CIMFR/PUR/10(30)2007	Supply of equipment & goods (active & passive components), laying of cables, installation, commissioning, integration & demonstration of single mode Fibre Optic based Campus Wide Networking: on Turnkey basis at CIMFR, Barwa Road Campus	01 complete unit	Rs.300/-	Rs.5,00,000.00
2.	CIMFR/PUR-9(30)2007	Flat Panel XGA Professional Plasma with PDA and Visualiser and Software.	02 Sets	Rs.300/-	Rs.35,500.00
3.	13(1)/CIMFR/133/07-08	UV Visible Spectrophotometer	01 set	Rs.300/-	Rs.12,000.00
4.	13(1)/CIMFR/132/07-08	ICP-Atomic Emission Spectrometer	01 Set	Rs.300/-	Rs.1,00,000.00
5.	CIMFR/PUR-14(24)2007	Multi Channel Seismographs	02 sets	Rs.300/-	Rs.14,000.00
6.	CIMFR/PUR/14(29)2007	Microtrap VOD Meter / Data Recorder with VOD Cable	01 set	Rs.300/-	Rs.16,000.00

\* No tender fees are required in case it is downloaded from the site [www.cmriindia.nic.in](http://www.cmriindia.nic.in).

**Note:** The Tender Document can be obtained from the Office of the Stores & Purchase Officer, CIMFR, Barwa Road, Dhanbad on written request on payment of the non- refundable and non – transferable tender document fees as stated above in the form of cross Demand Draft issued by a scheduled bank drawn in favour Director, CIMFR, payable at State Bank of India, Hirapur Branch, Dhanbad from **07.03.2008** to **07.04.2008**. CIMFR will not be responsible for non- receipt of the Tender Documents due to postal delay/loss in transit. The tender complete in all respect along with EMD should reach to this office on or before **07.04.2008** before **4.00 PM** and will be opened on **08.04.2008** at **10.00 AM** onwards in the Meeting Room of CIMFR.

Tender Documents with detail terms & conditions can be downloaded from our website: [www.cmriindia.nic.in](http://www.cmriindia.nic.in) Tender fees will not be required if it is downloaded from the website up to the tender sale period. The required EMD as stated above in the form of DD or BG must be enclosed in the Technical Bid failing which the offer will be treated as non-responsive.

Director, CIMFR reserve the right to accept or reject in part or in full to any or all the tender without assigning any reason thereof.

' : 0326- 2388306/2388319

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**Stores & Purchase Officer**

# DETAILED TECHNICAL SPECIFICATIONS

## **SPECIFICATION FOR SWITCHES & NMS**

Sl. No.01

All Switches should be of same make & compatible with offered NMS.

**Preferred makes are CISCO/Nortel/3Com/Extreme/Foundry.**

### **Core Switch:**

Core switch shall be Chassis based Layer-3 switch with full redundancy for switching fabric & redundant power supply. 48 Port GBIC (fiber) split in nature and each port loaded with 1000 Lx SMF module and 48 Port GBE (copper) split in nature and each port loaded with 1000 Base T.

### **Key requirements:**

- Modular Operating System with graceful management of faults, e.g. Only the faulty service module goes down and can be restarted without rebooting the OS.
- Provision for software upgrades without affecting network functioning.
- Non-blocking wire speed under fully loaded condition
- No Single Point of Failure in the chassis, e.g.
  - Redundant Switching fabric
  - Redundant Power supply unit
  - Redundant / spare fan tray
  - Redundant / load sharing fabric module
  - Redundant / load sharing Cu/OF modules.
- Hotswappable Line cards, Switching Fabric & Power Supply
- 2 free slots after populating all required ports (total 8 slots or more, e.g. 2 x management modules, 2 x Cu modules, 2 x SFP modules and 2 x free slots)
- Backplane capacity minimum 512 Gbps.
- Complete Layer 3 features.
- Support for 10G ports, Support should be available from day-1.
- Support for IPv6 from day-1.

### **Required Interfaces:**

- dual 24x1000Base X modules with 16 nos. (each) of LX modules loaded from day-1 in 1+1 load sharing mode
- dual 24x1000BaseT modules in 1+1 load sharing mode

### **Layer 2 features:**

- MAC Addresses: 32K or higher
- Security VLAN Access Lists supported should be 32K or higher
- Committed information rate (CIR) function should provide bandwidth in increments as low as 64Kbps

### **Layer 3 features:**

- IPv6
- VRRP or equivalent
- Routing Protocols to be supported are RIPv1 & v2, OSPF and BGPv4

- Per packet Traffic load balancing between multiple links using routing protocols should be supported.
- Port Management features
- Load sharing features.

**Multicast capabilities:** High-bandwidth video traffic is optimised so that it does not impact other applications on the Network

- Bi-directional Protocol independent Multicast (PIM) SM, SSM & DM support
- Internet Group Management Protocol (IGMP) Querier v3, MBGP

**QoS:**

- 8 Queues per port
- The chassis should support port based rate limiting
- Advanced QoS uses packet classification and marking and congestion avoidance based on layer 2-4 header information
- Should support VLAN, DiffServ
- Port-based rate limiting enforces any of 64 policy rates, maintaining service-level agreements on a per-user basis independent of traffic type or IP address, i.e. Policy based
- QoS scheduling rules with thresholds can be configured in the switch for multiple receive and transmit queries

**Security:**

- DHCP snooping, dynamic ARP inspection, IP source guard
- CPU Denial of service protection
- CPU Rate limiting
- Control Plane policing
- Port based ACLs
- User-based rate limiting
- Hardware based MAC learning
- Broadcast and Multicast suppression
- Port Security on Access, 802.1Q Trunks and 802.1Q tunneling ports
- Security ACL assignment
- The switch should have support for security standards like RADIUS or TACACS+, MAC address security and lockdown, Layer 2/3/4 Access Control Lists (ACLs)

**Edge Switch:**

Edge switches shall have 24/48 auto negotiating 10BaseT/100BaseTx ports configured as Auto sensing 24/28 x 10/100 Base Tx ports + 2x1000BaseX slots (Combo ports). The switch must have L3 features. Switch should be mounted with a suitable Rack.

**Key requirements:**

- Same Modular OS as the Core Switch.
- Provides graceful management of faults.
- Provision for software upgrades without affecting network functioning.
- Non-blocking wire speed performance.
- Should support for redundant links.
- Port Management features.

**Performance:**

- 48.8Gbps or higher switching capacity
- 8 queues per port
- Support VLAN features, DiffServ and IPv6

**Standards to be supported:**

- 4 RMON groups
- IGMP (v1, v2 and v3) snooping
- Secure sockets Layer (SSL)
- SNMP v1, SNMPv2c and SNMPv3
- Jumbo frame support

**Layer 3 features:**

- Basic IP unicast routing protocols (Static, Routing Information Protocol Version 1 & 2 - RIPv1, RIPv2) are supported for small network routing applications.
- Advanced IP unicast routing protocols (OSPF) should be supported for load balancing and constructing scalable LANs by upgrade of software
- Should support IPv6 routing (RIPng, OSPFv2) in hardware for maximum performance by upgrade of software
- Equal cost routing facilitates Layer 3 load balancing and redundancy

**Availability:**

- Hot standby redundancy features required on the switch with VRRP or equivalent.
- The Switch should support redundancy for Port and Link failure on Layer 2 and layer 3.
- The switch should automatically attempt to reactivate a link that is disabled because of a network error.

**Multicast capabilities:** High-bandwidth video traffic is optimised so that it does not impact other applications on the Network

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- Port Security on Access, 802.1Q Trunks and 802.1Q tunneling ports
- Security ACL assignment
- The switch should have support for security standards like RADIUS or TACACS+, MAC address security and lockdown, Layer 2/3/4 Access Control Lists (ACLs)

**Internet Router:** (Preferred make: CISCO/Nortel/Juniper)

For Internet Link, a Router with 2xV.35 ports and Cables for connecting to leased line Modems. In addition, if the link is provided by BSNL or OF cable, then Firewall must support 2xSFP ports.

- High speed CPU based architecture
- 2 x 10/100Base T Ethernet ports
- 2x2Mbps V.35 interfaces
- 75Kpps throughput
- The router should support hardware based VPN encryption
- The Router should be able to support ISDN-BRI interface
- Should support routing protocols like RIP, OSPF and BGP4 apart from Static routing
- Management through Web view (web based management)/ Telnet/ SNMPv1/v2/v3/ Console/ RMON
- Rack mountable with rack mounting hardware
- 802.1p support
- Traffic prioritization
- DSCP recognition
- Managed with embedded management software including Port description feature
- Support for Standard access control lists and extended Access control lists to provide supervision and control
- Control SNMP access through use of SNMP with MD5 authentication
- Implement Access control lists on the Router to ensure SNMP access only to the SNMP Manager or the NMS workstation
- Optional VPN Acceleration Module
- IPSec, DES, 3DES, and AES Support
- Multiple Privilege Levels
- Support for Remote Authentication Dial-in User Service (RADIUS) and AAA
- MD5 Route authentication
- PPP, PAP and CHAP support

**Firewall with AV, Deep Inspection (IPS) and WEB filtering feature (UTM):**

(Preferred make: CISCO/Nortel/Juniper)

Internet links will be terminated on Firewall through either Router or directly depending upon the type of link provided by BSNL.

- The UTM shall have the perfect blend of performance, security, routing and LAN/WAN connectivity.
- Powerful processing and security specific operating system. The security features should support Antivirus antispam, web filtering, IPS to stop all manner of Viruses and malware before they damage the network. At least 4 fixed 10/100/1000 interfaces, 2 USB ports and at least one each of console port and Aux port to provide High speed LAN connectivity, flexible mgmt and future connectivity.

- Should support T1, E1, serial, ADSL, ADSL2, ADSL2+, G.SHDSL, DS3, E3, 10/100/1000, SFP in the Device itself. Should be able to enforce session specific access control policies by using user identity network location or device security state
- Should support Deep inspection, Bridge groups, security zones, VLANs and V-routers to allow administrators to deploy security policies, isolating guests and wireless networks. Routing Engine should support OSPF, BGP, RIP v1/2, Frame relay, multi link frame relay, PPP and Multi link PPP, HDLC. Should also support automatic setup and strip down of VPN Tunnels between spoke sites (in a Hub – Spoke model)
- Traffic flowing in and out of CIMFR should be protected for worms, spyware, Trojans & malware.
- The UTM should include stateful firewall, IPSec VPN, IPS, Antivirus (That includes anti spyware, antiadware, antiphishing), anti spam and WEB filtering.
- Should support traffic management based on type of traffic, e.g. Voice and Video traffic over the Net should be prioritized to support IP Telephony and Video Conferencing through Internet.
- High Availability: Should support Active/Active & Active/Passive redundancy Model for high availability.

### **Performance Parameters:**

- Firewall packets per second (64 byte) – at least 175000 PPS.
- Concurrent Sessions ---- minimum 40000.
- Firewall performance (Large packet) ---- at least 400 Mbps
- Antivirus Signature database ---- minimum 100000
- Antivirus protocol scanning capability --- POP3, HTTP, SMTP, FTP, IMAP
- IPSec VPN Concurrent VPN Tunnels --- minimum 250
- Internal RAM – 1GB
- Authentication and Access Control --- should support at least 1500 Built in Database (internal) users and third party user authentication like RADIUS, RSA, Secure ID, and LDAP.

### **Network Management System:**

- Should be compatible with the switches offered
- Should support 100+ devices
- Real-time fault detection, analysis and reporting using device knowledge and fault rules
- A robust set of Layer 2 tools for device and connectivity discovery, detailed topology views, virtual LAN/ LAN emulation (VLAN/LANE), end-station tracking, Layer 2 and 3 path analysis
- Tools for managing network devices using inventory and device change management, network configuration and software image management, network availability and syslog analysis
- GUI providing back and front panel displays of devices in a dynamic, color-coded graphical display. Simplifies device-status monitoring, device specific component diagnostics, and application launching.
- A network response time - time and availability trouble shooting application. This tool empowers network engineers to proactively troubleshoot network performance using real-time and historical reports.
- Discrepancy reporting.
- Should configure, manage, and monitor VLAN services and networks.
- Should offer graphical device management.

**NMS Station** (Preferred make: HP/Lenovo/Dell): Notebook Computer with

- Intel Core 2 Duo Processor 1.8G (7100) or higher
- Intel 965GM chipset
- 2GB DDR II SDRAM
- 120GB or higher SATA HDD
- DVD-Writer Dual Layer
- 14" Wide XGA Screen
- Integrated Wireless LAN (802.11a/b/g)
- Integrated Gigabit Ethernet
- Integrated 56Kbps Modem
- Integrated Blue tooth adapter
- Wireless Internet connection with one year free access and adapter
- PC Card Slot -1 Type I/II, VGA, IEEE 1394, 4 USB 2.0, S-Video TV Out, Media Card Reader
- Spill proof Keyboard
- WINDOWS Vista Business
- One year International warranty

(Note: The NMS station should be capable of connecting to the Campus LAN over Internet and establish VPN connection to be able to manage the network, while outside campus.)

**Indoor Access Point:**

<b>Characteristic</b>	<b>Min. Required Specification</b>
Architecture	Full Featured Access Point
Wireless LAN std. Supported	Simultaneous support for 802.11b & 802.11g
Other Standards	Support for all current WLAN radio standards
Output Power	18 dbm with 802.11g
Frequency Band	2.4 GHz - 2.484 GHz
Modulation	Direct-sequence spread-spectrum (DSSS)
Association Rates for 802.11b	11 Mbps, 5.5 Mbps, 2 Mbps and 1 Mbps with automatic fallback
Association Rates for 802.11g	54 Mbps, 48 Mbps, 36 Mbps, 24 Mbps, 18 Mbps, 12 Mbps, 9 Mbps and 6 Mbps with automatic fallback
PoE	Support for 802.3af Power Over Ethernet (POE)
Security	Should support WEP encryption features for secure data transmission
	Should support WPA feature to ensure end-to-end security
	Should support 802.1X authentication support
Software Feature Requirements:	Should Provide end-to-end solution support for intelligent network services
	Should Produce predictable and consistent network behavior
	Should Deliver uniform applications and services
QoS Features:	Prioritizes traffic for different application requirements

**Antivirus & Software Distribution System:**

A server based machine shall be used for installing enterprise edition of a reputed antivirus solution. The antivirus server shall be nodal central point from where all latest patches and updates

shall be distributed to all PCs, Notebooks and Servers in the Network. The antivirus server shall be connected to the internet to facilitate continuous updation of the virus patches and updates. The same machine shall be used for centralized utility software & its upgrade distribution across the network.

The antivirus software solution shall be able to meet the following functionalities:

- Centralised Management
- Patches & updates distribution to the Desktops
- SMTP scanning
- HTTP & FTP scanning.

### **19" Industry Standard Networking equipment Racks**

**Preferred Brands: APW/ Valrack/ HCL/ Rittal/ AMP**

9U Wall mount Racks:

600MMx500MM (W X D) of appropriate height as per BOM.

Adjustable 19" Rails in front & rear

Door: Front Transparent lockable glass door

Cantilever Shelves: Suitable for above. (one or two as per BOM)

Power Socket: Strip of 6x5Amp Power Socket (one or two as per BOM)

Horizontal Cable Managers as required.

Fans: 2 Fans for cooling.

Single section (CRCA Steel frame, Finish - Powder coated to 80microns, Matt finish)

Top & Bottom cable Entry provision.

Hardware Set as required.

### **42U Floor Standing Networking Racks:**

800MMx800MM (W X D).

Adjustable 19" Rails in front & rear

Door: Front Transparent lockable glass door, Rear perforated door.

Power Socket: Vertical Strip of 14x5Amp Power Socket (as per BOM)

Castors: Four Castors, two with Brakes.

Horizontal Cable Managers as required.

Vertical Cable Managers built-in.

Fans: Fan Tray with 4 Fans.

CRCA Steel frame, Finish - Powder coated to 80microns, Matt finish

Top & Bottom cable Entry provision.

Hardware Set as required.

## Specifications for Passive Items - Cable & others

All Fiber/ UTP Components should be from the same OEM. The OEM should be ISO 9001:2000 & QS: 9000 Certified. In the changing needs of the global resources if the company has environmental management systems in place like ISO 14001 accreditation the same shall be added advantage. All UTP components should have UL number. CAT 6 UTP components should have independent lab verification like ETL certificates.

**Preferred brands are Systimax/AMP/Molex/Krone.**

(i) Optical Fiber Cable: Single mode (SM) Fiber, Standard properties

The Optical fiber should be of 6/12 core single mode armored type Loose-tube, Gel filled Low Water Fibers ITU-T G.652.C and ITU-T G.652.D standard for Low water Peak optical fiber cable.

Characteristic	Min. Required Specification	
GENERAL:	The fiber type is a Matched Cladding Single Mode	
	Fiber dual coated with acrylate coating.	
	The fiber is optimized for operation at 1310 nm and at 1550 nm.	
	Should fulfill the requirements of: <ul style="list-style-type: none"> <li>• IEC 793-2: 1992, Category B 1.1</li> <li>• EN 188101</li> <li>• ITU-T Recommendation G.652</li> </ul>	
	Testing methods are in accordance with the following standards: <ul style="list-style-type: none"> <li>• ITU-T G.650</li> <li>• IEC 793-1</li> <li>• EN 188 000</li> </ul>	
GEOMETRICAL PROPERTIES:	Nominal mode field diameter	9.0 $\mu\text{m}$
	Mode field diameter tolerance	$\pm 10\%$
	Cladding diameter	125 $\mu\text{m}$
	Cladding diameter tolerance	$\pm 1 \mu\text{m}$
	Mode field concentricity error	Max.:0. 8 $\mu\text{m}$
	Cladding non-circularity	Max. 2%
	Diameter of outer coating layer	245 $\mu\text{m}$ (without coloring layer)
	Tolerance of coating layer diameter	$\pm 10 \mu\text{m}$
	Coating concentricity error	Max. 12 $\mu\text{m}$
MATERIALS	CORE	Germanium doped core with no phosphorus i.e. reduced tendency for hydrogen degradation.
	COATING	UV-curable dual layer acrylate coating, which ensures excellent micro bending and abrasion resistance.
	Stripping force after conditioning at $23 \pm 5^\circ\text{C}$ at 40 - 60 % RH for 24h.	
	Min.	1.0 N

	Max.	3.5 N
	Stripping force after ageing in water at 70 ± 5°C for 168 h.	
	Min.	1.0 N
	Max.	3.5 N
OPTICAL PROPERTIES	Attenuation (of cable with fibers):	
	At 1310 nm	<= 0.40 dB/km
	In the range 1285-1330 nm	<= 0.43 dB/km
	At 1550 nm	<= 0.25 dB/km
	Cut-off wavelength $\lambda_c$ :	
	High limit	1330 nm
	Low limit	1180 nm
	Cut-off wavelength $\lambda_{cc}$	
	High limit	1260 nm
	Loss increase at 1550 nm for 100 turns of fiber loosely wound with a 37.5 mm radius:	
	Max.	0.1 dB
	Loss due to hydrogen:	
	Maximum induced permanent loss after 1000 h at 1 bar H <sub>2</sub> at 70°C and out gassing for 72 h at 70°C (valid both at 1310 nm and at 1550 nm)	0.2 dB/km
	Dispersion:	
	Zero dispersion wavelength	1310 nm
	Tolerance of zero dispersion	
	Wavelength	-10/+12 nm
	Zero-dispersion slope:	
	Max.	0.092 ps/(nm <sup>2</sup> • km)
	Chromatic dispersion coefficient:	
	In 1285 nm - 1330 nm interval:	
	Max.	3.5ps/km • nm
	In 1270 nm - 1340 nm interval	
	Max.	6 ps/km • nm
	At 1550 nm	
	Max.	18 ps/km • nm
	Polarisation Mode Dispersion (PMD):	
	Max.	0.5 ps/km
	In homogeneity of OTDR trace for any two 1000 meter fiber lengths	
	Max.	0.1 dB/km
	Proof test level	1%
Cable Construction (as per IEC 794-1)	Armor	Corrugated Steel Tape Armor
	Multiple Loose Tube	
	Gel-filled	
	Water-blocking	
	Black Medium density PE/PE/HDPE	
	Direct Burial Variety	

	Tensile Strength	1800N max. during installation
		1200N during long term storage
	Compressive Strength (Crush resistance)	4500N or more
	Impact	20Nm
	Minimum Bending Radius (as per IEC 794-1 E11)	290mm or less
Operating Temperature	The cable should be able to bear temperature cycling between -40°C to +60°C, There should not any variation in attenuation (<0.05dB) within -10°C to +60°C	

**FIBER PATCH PANELS – RACK MOUNT:**

<b>Characteristic</b>	<b>Min. Required Specification</b>
	The Fiber Management Panel Shall be a 1U 19” rack mounted panel, which allows direct mounting of the connectors into the front panel plates.
	All optical fiber patching panel shall provide cross-connect, inter-connect, splicing capabilities and contain cable management for supporting and routing the optical fiber cables/jumpers.
	Shall support up to 24 or more cores termination
	Shall accommodate adaptors with shutters
	Shall have Strain relief for fiber cable
	Have earthing lugs and other accessories.
	Panel cover should be slide out for easy maintenance
	Provide self-adhesive, clear label holders (transparent plastic window type) and white designation labels with the panel, for front panel labeling.
	Should be upgradeable as Intelligent Patch Panel without changing the existing Patch Panel hardware by simple retro fitting of intelligent sensors as and when required.

Note: The OEM should have at least one site on intelligent system within India. The bidder/OEM should be able to physically demonstrate intelligent system monitors (for both copper & fiber), patch cords etc. if asked by the Institute.

**(ii) SC DUPLEX ADAPTORS:**

<b>Characteristic</b>	<b>Min. Required Specification</b>
Features	All SC adaptors should be duplex type with integrated spring-loaded shutters for protection. Adapters should be snap mount for easy insertion and removal.
	Single Mode adaptors adhering to standard NTT-SC and Bellcore 326 compliant connectors
	Meets TIA/EIA 568-B.3 and IEC 874-109 standards
	Shall have Zirconia Alignment sleeve

**(iii) Optical Fiber Connectors (SC):**

<b>Characteristic</b>	<b>Min. Required Specification</b>
Features	Provide a field installable single mode connector to terminate fiber optic cables from cable-to-cable, cable-to-equipment and equipment-to-equipment. Connectors shall be ceramic tipped and UV curable.
	Utilize a PC polishing on the tip to provide high yield during installation. Meet EIA and IEC standards for repeatability.
	Have a locking feature to the coupler and assure non-optical disconnect.
Specifications	SC-SM
Loss (dB)	$\mu = 0.2$ $\sigma = 0.1$
Fiber OD	125 $\mu$ m
Cable OD:	3.0 / 0.9mm
Loss Repeat:	< 0.2dB (per 1000 reconnects)
Tip Material	Zirconia.

**(iv) Optical Fiber Equipment Cords:**

<b>Characteristic</b>	<b>Min. Required Specification</b>
Features	All optical fiber patch leads shall comprise of Single mode 9/125 $\mu$ m fiber with SC/LC, fiber connectors terminated at each end. The optical fiber patch leads shall comply with the following specifications:
	Connector: Zirconia ceramic ferrule
	Pre-radiuses and pre-polished ferrule
	Epoxy type fiber encapsulation
	Color-coded connector boots fitted to connectors on duplex patch leads.
	Dust caps shall be fitted on each connector at the assembly
	Cable: 9/125, SM
	Strength member: aramid yarn
	900 $\mu$ m tight buffer diameter

**Cat 6 Copper Components:**

<b>Sl.No.</b>	<b>Description of item</b>	<b>Specifications</b>
1.	Cat 6 UTP Cable	4 pair, 23 AWG or thicker, UTP Non Plenum cable Insulation: Polyolefin Jacket: Flame retardant PVC R: Cross member fluted spine (full separator). Half will not be accepted. Approvals: UL Listed and ETL verified to TIA/EIA Cat 6 standards 568-B.2-1 Frequency tested upto – 250MHz Delay skew: -45ns max.
2.	24-Port Patch Panel (Cat6 UTP)	1U height Durability - 750 mating cycle

		<p>Material of housing - Polycarbonate, UL94V-0 rated or equivalent</p> <p>Jack contacts:  Contact Material - Copper Alloy  Contact Plating - 50µ” Gold/100µ” Nickel  Operating Life - Minimum 200 re-terminations  Shutter on the jack panel port is mandatory</p> <p>Cable Management: integrated rear cable management  Should be covered by ETL verification program for compliance with TIA 568B.2-1</p> <p>Approvals – UL Listed, Termination pattern TIA/EIA 568A &amp; B</p> <p>Should be upgradeable as Intelligent Patch Panel without changing the existing Patch Panel hardware and by simple retro fitting of intelligent sensors as and when required.</p>
3.	Cat 6 Information Outlet	<p>Durability – 750 mating cycles</p> <p>Material of Housing: Polycarbonate, UL94V-0 rated or equivalent</p> <p>Jack contacts:  Contact Material - Copper Alloy  Contact Plating - 50µ” Gold/100µ” Nickel  Operating Life - Minimum 200 re-terminations  Integrated spring loaded Shutter</p> <p>ETL Verification program for compliance with TIA568B.2-1</p> <p>Approvals – UL Listed, Termination pattern TIA/EIA 568A &amp; B</p>
4.	British Face Plate (Single / Dual)	<p>Face plates to be delivered with label holders and icons, which can be used based on the usage of I/O</p>
5.	Cat 6 Patch Cord	<p>Plug Protection: Matching Colour snag less Boot</p> <p>Insulation – Flame retardant Poly-ethylene</p> <p>Durability – 750 mating cycles</p> <p>Jack contacts:  Contact Material - Copper Alloy  Contact Plating - 50µ” Gold/100µ” Nickel  Operating Life - Minimum 200 re-terminations</p> <p>ETL Verification program for compliance with TIA568B.2-1</p> <p>Approvals – UL Listed, Termination pattern TIA/EIA 568A &amp; B</p>
6.	Surface Mount Box	<p>British Style</p> <p>Suitable for fixing face plates</p>

Note: The OEM should have at least one site on intelligent system within India. The bidder/OEM should be able to physically demonstrate intelligent system monitors (for both copper & fiber), patch cords etc. if asked by CIMFR.

**Installation Specifications**  
**Fiber optic Cabling Installation Practices**

1. Backbone cables shall be installed separately from horizontal distribution cables.
2. Where cables are housed in conduits, the backbone and horizontal cables shall be installed in separate conduits or in separate inner ducts within conduits.
3. Where backbone cables and distribution cables are installed in a cable tray or wire way, backbone cables shall be installed first and bundled separately from the horizontal distribution cables.
4. Fiber slack shall be neatly coiled within the fiber termination panel. No slack loops shall be allowed external to the fiber panel(s).
5. Each cable shall be individually attached to the respective termination panel by mechanical means.
6. The cables strength member(s) shall be securely attached the cable strain relief bracket in the panel.
7. Each fiber cable shall be stripped upon entering the termination panel and the individual fibers routed in the termination panel.
8. Each cable shall be clearly labeled at the entrance to the termination panel. Cables labeled within the bundle shall not be acceptable.
9. Dust caps shall be installed on the connectors and couplings at all times unless physically connected.

**Installation acceptance Testing Specifications**

**SM fiber links shall be tested for attenuation at 1310nm as per TIA / EIA 526-7 using power meter and power source. Bidder, at the time of bidding, shall provide proposed link budgets for each and every link specified in the Requirement specifications above, in the following format. This will help in establishing baseline performance of the cable and decide on Network platform that can be supported on each of the link prior to deployment.**

S. No.	Link	MM / SM	Length	Estimated Link Budget

**Warranty Specifications**

We seek warranty for the installed cable plant from the OEM equipment supplier. Bidder shall ensure that the OEM norms for supply, installation, testing and documentation as specified by the OEM supplier shall be adhered to, provided those are in line with TIA / EIA standards and required specifications. The warranty shall be provided by the OEM vendor and shall be administered in India. **The duration of the warranty shall be for a minimum of 25 years** and shall cover the system performance, application assurance and the costs of the supply of components and installation. The bidder along with the bid shall provide a Sample Warranty certificate.

### **Documentation Specifications**

The successful bidder shall after completion of the installation, submit a detailed documentation of the cable plant. The documentation shall cover, in the minimum, the following

- a) As-built diagrams of the campus Network, with building and floor wise distribution of users and connectivity
- b) Test results for UTP and Fiber links
- c) Consolidated BOM with manufacturer's part Nos. and quantities used
- d) Warranty certificate from OEM supplier

Note: The OEM should have at least one site on intelligent system within India. The bidder/OEM should be able to physically demonstrate intelligent system monitors (for both copper & fiber), patch cords etc. if asked by CIMFR.

## **INSTRUCTIONS TO BIDDER**

### **1. Eligible Bidders**

This bidding Process is limited to OEM authorized partners. However, the authorized partners must submit documentary evidence in this regard failing, which their refer offer will be rejected.

- There can be only 1 bid from each bidder.
- Bidder shall have to quote for all items as specified in the bid and have to quote separately for each item.
- The registration number of the firm along with the CST no. allotted by the Sales Tax Authorities, as well as PAN, TIN and TAN number of the firm allotted by the Income tax authorities should be notarized and submitted, failing which vendor's bid would become invalid and same shall be rejected.
- Purchaser reserves the right to verify/ confirms all original documentary evidence submitted by vendors in support of above-mentioned clauses. Upon verification, evaluation / assessment, if in case any information furnished by the vendor is found to be false/incorrect, their total bid shall be summarily rejected and no correspondence on the same, shall be entertained.
- Bidder must undertake that they would carry out installation / commissioning of all equipments including third party items. Please submit self certificate to this effect from the company's authorized signatory.
- The Bid should be accompanied by technical compliance of the specifications and OEM available brochures with all technical details. In case, of non-submission of above documents or any product found to be below the tender specifications, the Bid will be summarily rejected and no correspondence on the same, shall be entertained.

### 1.1 **Eligibility criteria:**

The invitation for tenders is open to reputed computer firms in India having previous performance records of establishing and maintaining fiber optic network and wireless connectivity and also fulfilling the following:

- i) **The company should have an annual turn over of more than Rs. 2.0 (Two) crores in the following financial years:- 2004-2005, 2005-2006 and 2006-2007.**
- ii) **Experience of having successfully completed establishment of fiber backbone by laying of OFC cable using switches, connectors, transceivers, terminators / converters etc. and wireless networking during the last 5 years ending 31.12.2007, should be either of the following:**
  - a) 3 similar completed works costing not less than the amount of Rs.40lakhs for each.
  - b) 2 similar completed works costing not less than the amount of Rs.60lakhs for each.
  - c) 1 similar completed works costing not less than the amount of Rs 80lakhs.
- iii) **The company should be an ISO 9001 – 2000 certified company. A document to be provided in support of this criterion.**
- iv) The System Integrator must produce valid tender specific authorization certificate from the OEM of each of the major products quoted, e.g. Network Switches, UTM device, Internet Router, NMS, Passive Cabling & Connectors.

2. **The provision of One Resident Service Engineer along with 5 (Five) years onsite Comprehensive warranty.**

## **Bill of Material for Networking.**

### **Supply Part: (A) Passive Components**

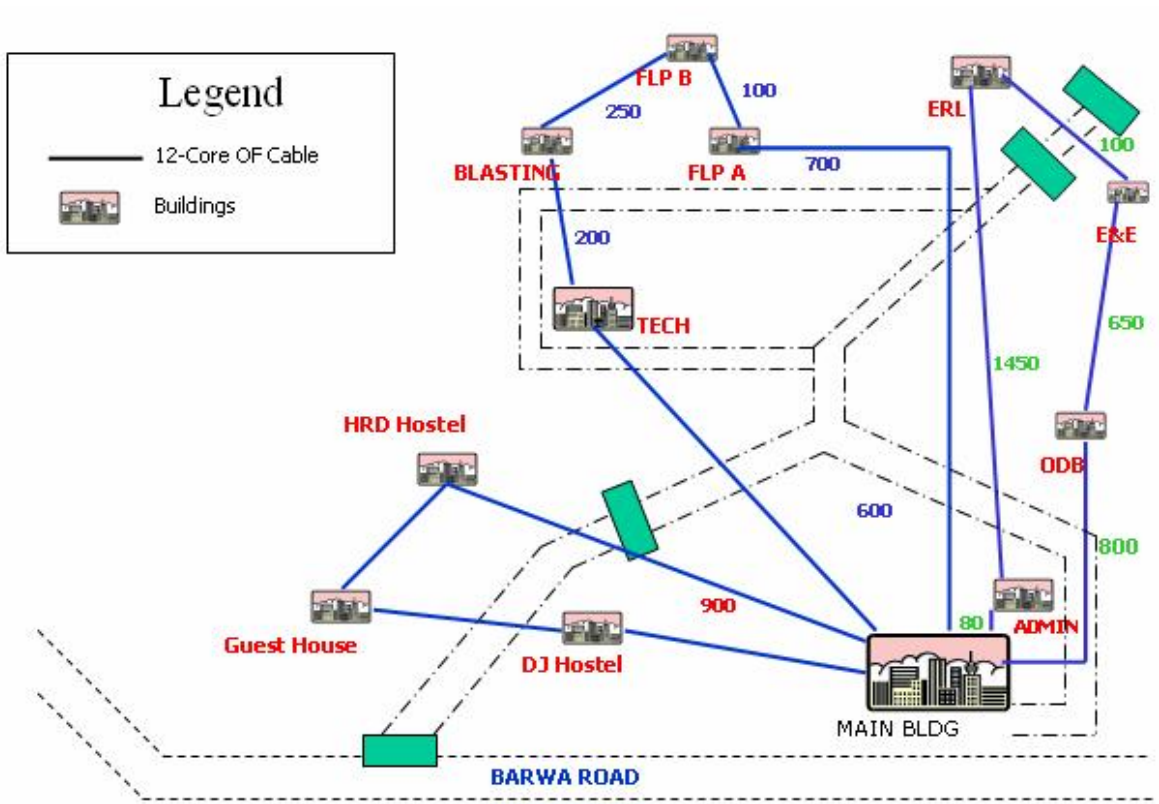
<b>Sl.No.</b>	<b>Item</b>	<b>UOM</b>	<b>Qty.</b>
1	12-core armoured Single mode OFC Cable	Mtr.	8000
2	Single Mode SC Pigtail (.5Mtr)	Nos.	384
3	24-port LIU loaded with 12-duplex SC type adapters and splice holder for 24-splices	Nos.	16
4	SC-SC/SM duplex Patch Cords Single Mode 3Mtr.	Nos.	46
5	SC-LC/SM duplex Patch cords single mode 3Mtr.	Nos.	36
6	Cat 6 Cable (Box of 305Mtrs.)	Box	74
7	Cat 6 I/O with faceplate / Gangbox	Nos.	514
8	24-port Cat 6 Patch Panel	Nos.	31
9	Cat 6 Patch Cord 2Mtr.	Nos.	514
10	Cat 6 Patch Cord 1Mtr.	Nos.	534
11	Equipment Rack 9U with 1xPower Strip and 1xShelf	Set	20
12	Networking Rack 42U 800x800 with accessories	Set	1
13	HDPE PL Pipe 32mm dia	Mtr.	8000
14	Couplers for HDPE pipe 32mm/40mm	Nos.	100

**Supply Part: (B) Active Components and Software**

Sl.No.	Item	UOM	Qty.
1	Core Switch with 32x1000Base Lx modules	Nos.	1
2	Edge Switch 48 ports with 2x1000BaseLx modules	Nos.	3
3	Edge Switch 24 ports with 2x1000BaseLx modules	Nos.	10
4	Edge Switch 48 ports with 2xGigabit Combo Ports	Nos.	7
5	Internet Router	Nos.	1
6	Firewall / UTM with IDP	Nos.	1
	IDP Subscription for 1st year	Nos.	1
	IDP Subscription for Subsequent years	Nos.	
7	Network Management System	Nos.	1
8	NMS Station	Nos.	1
9	Anti Virus Software (Enterprise Edition)	Nos.	500
	Upgrade subscription subsequent years	Nos.	0
10	Access Points (Indoor)	Nos.	10

**Installation & Commissioning Part: (A) Cable Laying, Fiber connectorisation, Testing & Commissioning**

Sl.No	Item	UO M	Qty.
1	OFC Laying Cost with Prelubricated HDPE Conduit pipes	Mtr.	8000
2	Fiber termination by splicing	Nos.	384
3	Installation and dressing of rackmount LIU	Nos.	16
4	OTDR Testing and reports	L.S.	192
5	Installation of UTP Cat 6 cable using conduit pipes / casing-caping	Mtr.	22570
6	Installation Cat 6 I/O and termination	Nos.	514
7	Installation and termination of 24-port Patch Panel	Nos.	31
8	Installation and dressing of 9U Rack	Nos.	20
9	Installation and dressing of 42U Rack	Nos.	1
10	Testing by Pentascanner for all UTP Points	Nos.	717
11	Documentation and certification of the Network	L.S.	1
12	Installation and configuration of Core switch, edge switch, Router, Firewall etc. and commissioning of entire Network	L.S.	1



CIMFR Physical Optical Fiber Cable Layout

Sl. No.02

Sl No.	File No.CIMFR/PUR-9(30)2007	Qty.
Description of Item		Qty.
1.	Flat Panel XGA Professional Plasma Display, 50" Diagonal size, Resolution – XGA, Pixels – 1920 x 1080, Aspect Ratio – 16:9, Contrast Ratio – not less than 10,000:1, Point Zoom, Video Wall Capability, 3X HDMI Input, 1080 Alis Panel	02 Nos.
2.	PDA-Connector Interface Card	02 Nos.
3.	Speaker System for 50" Plasma Displays	02 Nos.
4.	Wall Mount Kit / Latest Remote Controlled Motorized Swivel Desktop Stand	02 Nos.
5.	Interactive Electromagnetic LCD Writing Tablet 17" Diagonal LCD Screen Size, SXGA Resolution, LCD Sensor Zone, Connectivity with Meeting Board & Pad, Recording Facility	02 Nos.
6.	VGA Amplifier cum Switcher	02 Nos.
7.	Digital Professional Presenter/Visualizer CCD Camera, VGA In, VGA Out, USB PS2 Mouse, MIC RS232C Port, DVI Port, S-Video, Composite Video, Remote Control with Laser Pointer, Built-in-Memory, CF/SD Memory Card Slot, Should have good optical & Digital Zoom for magnification, Image Memory through SD Card upto 500.	02 Nos.
8.	Software for Visualizer	02 Nos.



File No. 13(1)/CIMFR/132/07-08			
Sl No.	Description of Item		Qty.
	<b>ICP ATOMIC EMISSION SPECTROMETER</b>		<b>01 set</b>
1.	General	Bench top model with power up to 1.6 KW	
	RF generator	In built solid state RF generator; Frequency: 27 MHz and above, computer controlled power.	
	Sample introduction system	Cross flow, concentric and HF resistant nebulizers. Scott and cyclonic spray chambers. Minimum three channels, variable speed built-in peristaltic pump. Should supply a flow injection system.	
	Plasma torch	Axial view. Additional demountable HF resistant torch.	
	Spectrometer	Polychromator Echelle based spectrometer. Peltier cooled system. Wavelength: <170->780 nm without any gaps or holes. Resolution minimum 0.008 nm at 200nm wavelength. Solid state detector. Simultaneous background correction. Anti-blooming protection. Higher ppm to sub ppb determination in the same run.	
	Software	Should be compatible with windows/xp. Should have non-linear /polynomial curve fitting capabilities. Computer compensation for background correction. A library for identification of spectral interferences. Simultaneous background correction. Control for gas flows and mass-flow, where applicable.	
	Accessories	Hydride vapour generation unit from principal for analysis of hydride forming elements. Supply and commission of fume hood with exhaust ducting with FRP coated fan (Indigenous). Necessary power cables, tubings, Indian plugs tops etc. and their spares. Chillers for RF generator from principals. Two stage stainless steel regulators for argon/nitrogen (3 sets) (indigenous). Dust Cover. Hard and soft copies of service, application and operational manuals. Diagnostic and troubleshooting manual (soft and hard copy).	
	Optional	Ultrasonic nebulizer for ultra trace level analysis.	
	Data Station and Printer	P4 Dual Core Processor; DVD Writer; 160GB Hard Disk; 1GB RAM; Windows XP, 19" TFT Monitor with speaker (or the other latest model preferably from IBM, HP or DELL). Colour Laser Jet Printer.	
	Safety	Built-in safety features	
	Consumables	Necessary consumables from principal for operating the instrument and for smooth operation for 5 years. Internationally traceable certified multi element (30 elements) standard solutions for calibration/validation [MERCK: 1.09498.0001]. Internationally traceable certified soil, fly ash and coal (bituminous) reference materials for trace elements.	
	Installation	The firm should successfully install and train the staff members' onsite.	
	Warranty	Comprehensive onsite warranty for 5 years full warranty. AMC for 5 years after the expiry of 5 years warranty period	
	Training	Comprehensive training to minimum two scientists at the preferable application centre of the vendor in India free of cost. Comprehensive free training (min 5 days) to two scientists at manufacture's site (including international & local travel, hospitality, training fees etc.).	
	UPS	15 KVA three phase online UPS with 60 min power back up from a reputed brand.	
The firm should address each specification listed above with supporting documents wherever needed. The firm should supply a summary table consisting of point by point justification to all the above specifications (Sl. No. 1-15).			
Note : <b>The instrument should be installed at CIMFR, Digwadih Campus, P.O.: FRI, Dhanbad (Jharkhand), India</b>			

Sl. No.	Description	Qty.
1.	<p data-bbox="326 247 1214 285"><b>MULTI CHANNEL SEISMOGRAPHS with following features :-</b></p> <ul style="list-style-type: none"> <li data-bbox="375 321 1211 352">✓ No. of Channels (for Microphone &amp; Tri-axial Geophone ) : 4 (four)</li> <li data-bbox="375 388 959 420">✓ Vibration Monitoring Range : Upto 254 mm/s</li> <li data-bbox="375 455 813 487">✓ Resolution : 0.127 mm/s or better</li> <li data-bbox="375 522 870 554">✓ Accuracy : <math>\pm 5\%</math> or 0.5 mm/s or better</li> <li data-bbox="375 590 980 621">✓ Air Overpressure Range : 88 to 148 dB or more</li> <li data-bbox="375 657 1276 688">✓ Sampling rate of 1024 to 4096 S/s or higher (independent of record time)</li> <li data-bbox="375 724 870 756">✓ Event duration record : 1-60 s or more</li> <li data-bbox="375 791 862 823">✓ Event Storage Capacity : 300 or more</li> <li data-bbox="375 858 683 890">✓ PC-interface : RS-232</li> <li data-bbox="375 926 1304 957">✓ Battery: 6V sealed with 210 hours continuous monitoring capacity or more.</li> <li data-bbox="375 993 1419 1066">✓ It should be supplied with compatible one no. of Standard Tri-axial Geophone (2 to 250 Hz frequency or better) with 6 feet or more cable.</li> <li data-bbox="375 1102 1419 1176">✓ It should be supplied with compatible one no. of Linear Microphone Assembly with 6 feet or more cable.</li> <li data-bbox="375 1211 1419 1285">✓ It should be supplied with standard accessories e.g. AC Power Charger (Indian type), RS-232 Cable, Manual, Carry Case etc.</li> <li data-bbox="375 1320 1304 1352">✓ It should be supplied with calibration certificates valid for at least one year.</li> <li data-bbox="375 1388 1235 1419">✓ Manufacturers should have good record of after sales service in India.</li> <li data-bbox="375 1455 1419 1591">✓ <b>Manufacturers should mention about their re-calibration facilities in India and abroad and total charges (Calibration Charges + Handling Charges + Taxes + Any others) for re-calibration of Seismographs every year for five years.</b></li> </ul>	02 sets

Sl. No.6

Sl No.	File No. CIMFR/PUR/14(29)2007	
	Description of Item	Qty.
1.	<p><b><u>MICROTRAP VOD METER / DATA RECORDER</u></b>            Portable 1 channel continuous explosives velocity of detonation (VOD) recorder for explosives in one or more blastholes and explosives samples Resolution = 14 bits. 1 part in 16.384. Recording speed is adjustable from 1 Hz to 2 MHz. Standard memory of 4,000,000 data points = 2 seconds recording time at a 2 MHz recording speed Reducing recording speed increases the recording time. Adjustable internal and multiple external trigger modes Pre-trigger time is adjustable form 0% to 100% of the total recording time Multiple event storage of upto 16 events in non-volatile memory. Operates from the internal rechargeable NiCad battery (up to 12 hours), or VAC Battery Charger. Parallel Port Communication Cable, USB Port communications adapter, Micro Trap VOD Operations Manual, Micro Trap Advanced Analytical Software for Window 95 and late, padded micro Trap Case. Includes a 1 year comprehensive 100% part and labour warranty.</p>	<b>01 No.</b>
2.	<b>VOD Cable (VOD Probe Cable) (1000m) – 4 boxes</b>	<b>1000m</b>



**Central Institute of Mining & Fuel Research**  
**Erstwhile Central Mining Research Institute**  
**(Council of Scientific & Industrial Research)**  
**Barwa Road Campus, Dhanbad –826015 (Jharkhand), INDIA**

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**COMMERCIAL TERMS & CONDITIONS**

**Important Notice**

The Commercial Terms & Conditions is given in five different sections, which may please read carefully before submitting the tender. Any deviation and non-compliance of the terms & conditions must be written clearly. An incomplete offer and late bids are liable to be ignored and rejected. To aid the Bidders in submitting complete offers, a Check List is included in the bid document. The bidders must fill this and submit along with their offer in their own interest to avoid rejection of their tender.

**Request For Proposal (RFP)**

**NIT No.**

**CIMFR/PUR/14(7)2007**

1. Last Date for Submission of Bid :

**07.04.2008 upto 4.00 P.M**

2. Date of Opening of Tender (only Technical Bid in case of Double Bid System) :

**08.04.2008 at 10.00 A.M**

3. Date of Opening Financial Bid wherever applicable : TENDERERS WHOSE TENDERS ARE FOUND TECHNICALLY SUITABLE

## **SECTION - I**

### **INVITATION FOR THE BIDS**

Sealed tenders are invited under **Two Bids System** 1. Technical-Commercial Bid and 2. Financial Bid for the products mentioned in our Global / Open Tender Notice required to be supplied, installed, commissioned and demonstrated at CIMFR, Dhanbad. **Technical- Commercial Bid and Financial Bid should be identical in all respects except that the Technical-Commercial Bid should have blank space at the place where prices have been indicated in the Financial Bid.**

Tenderers are requested to submit their tenders in three separate envelopes 1. EMD Envelope, 2. Technical-Commercial Bid Envelope and 3. Financial Bid Envelope duly sealed and super scribed with "Tender No. and Description of item" strictly as per our Technical specifications and Terms and Conditions.

**Technical-Commercial Bid** should consist of:

1. Technical specifications being offered by the firm of Tender Documents along with Brochures and literature giving all features.
2. Certificate of Registration of firm
- 3. Authorization Letter from the manufacturer to quote and submit tender.**
4. Certificate of valid Authorised Distributorship/Dealership/Retailer ship from the manufacturer.
5. Latest Income Tax Clearance Certificate
6. Certificate of Central Sales Tax/Local Sales Tax Registration No. Authorised Service Provider Certificate from the Manufacturer only.
- 7. Photocopy of Warranty Service Provider Agreement between the manufacturer and the Service Provider.**
8. Clients list along with addresses, Telephone Nos., Fax Nos., Contact persons. Product supplied, Qty. supplied, Performance Certificates/Bench marking of the equipments by recognized National/Institutional/ Govt. organization like Department of Electronics.
9. Last Audited Balance Sheet of the firm.
10. Maintenance Infrastructure Facilities including addresses, Telephone No. of Service Centre.
11. Photocopy duly attested of Certificate of compulsory enlistment of Indian Agents of Foreign Principals with DGS&D (**wherever required**) quoting on their behalf. Date of enlistment must be before the date of opening of tenders.
12. Details of Equipments supplied of identical or similar nature to other CSIR Labs/Institute for the preceding three years along with the prices eventually or finally paid.

### **Commercial Terms :**

- a. Percentage rate of CST/LST, Octroi, freight and forwarding charges, handling charges, loading/unloading charges, any other tax/charge as applicable should be clearly mentioned. The offers indicating "Taxes as applicable" or "Taxes inclusive" may be rejected.
- b. Validity of Quotation
- c. Delivery Period
- d. Payment Terms
- e. Warranty
- f. Training
- g. Discount
- h. Terms of Delivery
- i. Post Warranty AMC
- j. Performance Security Deposit
- k. Liquidated Damages
- l. Installation, testing and commissioning charges
- m. Percentage of Agency Commission in case of imports.
- n. Agency Commission should be included in the FOB Price and will be paid to the Indian Agents if registered with DGS&D (**wherever required**)
- o. Gateway Airport in case of shipment from abroad

p. Beneficiary Bank and SWIFT No. in case of imports

**Financial Bid** should consist of:

**Basic Price** in case of indigenous supply/FOB price in case of imports

### **Commercial Terms**

a. Percentage rate of CST/LST, Octroi, freight and forwarding charges, handling charges, loading/unloading charges, any other tax/charge as applicable should be clearly mentioned. The offers indicating "Taxes as applicable" or "Taxes inclusive" may be rejected.

b. Validity of Quotation

c. Delivery Period

d. Payment Terms

e. Warranty

f. Training

g. Discount

h. Terms of Delivery

i. Post Warranty AMC

j. Performance Security Deposit

k. Liquidated Damages

l. Installation, testing and commissioning charges

m. Percentage of Agency Commission in case of imports.

Agency Commission should be included in the FOB Price and will be paid to the Indian Agents if registered with DGS&D (**wherever required**).

n. Gateway Airport in case of shipment from abroad

o. Beneficiary Bank and SWIFT No. in case of imports

The bids complete in all respects addressed to the Director, CIMFR should reach at the following address **latest by 4.00 PM on 07.04.2008.**

### **Central Institute of Mining & Fuel Research**

**Erstwhile Central Mining Research Institute**

**(Council of Scientific & Industrial Research),**

**Barwa Road Campus, Dhanbad -826015, JHARKHAND, INDIA**

**'** : 0091-0326-220-3156, **☎**: 0326-2203156,2202429

**STD CODE: 0326**

**The Tenders (Technical Bids only wherever applicable) will be opened in this Office at 10.00 A.M hours on 08.04.2008 in the presence of Bidders (only one representative of the firm) who is willing to participate in the tender and whose EMD is in order.**

## **SECTION - II**

### **INSTRUCTION TO BIDDERS**

#### **1. Scope of Work:**

Supply installation, testing, commissioning, demonstration and training in the usage and administration of procurement of products mentioned in our Open Tender Notice.

#### **2. Bidders:**

The invitation for Bid is open to all Indian Original Equipment Manufacturers / Authorized Distributors/Authorized Dealers/Authorized Retailers/Foreign Manufacturers or suppliers directly/authorized Indian Agents. In such cases where the tenders are submitted by the Indian Agents of their Foreign Manufacturer/Supplier or directly by the Principal to CIMFR, then the tender of Foreign Manufacturer/Supplier will only be considered and CIMFR will deal directly with the Foreign Manufacturer/Supplier or otherwise as decided by Director' CIMFR.

#### **3. Cost of Bidding:**

The bidders shall bear all costs associated with the preparation and submission of its bid and CIMFR will in no case be responsible or liable for these costs regardless of the conducts and the outcome of the bidding process.

#### **4. The Bidding Documents:**

The goods and services required, bidding procedures and contract terms are prescribed in the bidding document. In addition to the invitation for the bids, the bidding document includes:

- a) Instruction to bidders
- b) Schedule of requirements
- c) Technical Specifications
- d) Terms & Conditions
- e) Bid form and price schedule

The bidder is expected to examine all instructions, forms, terms and conditions in the bidding document. Failure to furnish all information required or submission of bid not substantially responsive to the bidding documents in every respect will be at the bidder's risk and may result in rejection of its bid.

#### **5. Preparation of bids:**

The bids are to be submitted in three separate sealed envelopes

- a) Earnest Money Deposit
- b) Technical-Commercial Bid
- c) Financial Bid

#### **6. Submission of Bids :**

##### **a) Sealing and Marking of Bids**

- i) The bids shall be submitted in three separate sealed envelopes addressed to The Director, Central Institute of Mining & Fuel Research , Barwa Road, DHANBAD-826001 JHARKHAND, INDIA which shall be marked as "EMD", "Technical-Commercial Bid" and "Financial Bid" mentioning Tender Number, Description of Item and Date of Opening and all the three envelopes should be put inside the big envelope.
- ii) The Envelopes shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared late and delayed.

Telex, cable, facsimile and unsigned bids will not be considered and rejected.

## **b) Deadline for submission of Bids**

i) Bids must be received by CIMFR at the address given in Section-I not later than the time and date specified on the cover page. In the event of the specified date for the submission of bids being declared a holiday for CIMFR, the bids will be received up to the appointed time on the next working day.

ii) The Director, CIMFR may at his discretion extend the deadline for submission of bids by amending the bid documents, in which case all rights and obligations of the purchaser and bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

## **c) Late Bids**

Any bid received after the deadline for submission of bids prescribed by CIMFR will be rejected and/or returned unopened to the bidder.

## **d) Bid Opening and Evaluation**

### **Opening of Technical Bids by Purchaser**

The Purchaser will open all Technical-Commercial Bids, if the EMD, is submitted as per requirement in the presence of bidders' representatives who choose to attend, at the time, on the date and venue indicated in Section-I. The bidders' representatives present there, shall sign a register evidencing their attendance. In the event of the specified date of the bid opening being declared a holiday for the Purchaser, the bids shall be opened at the appointed time and location on the next working day.

## **e) Clarification of Bids**

i) During evaluation of the bids, the purchaser may at his discretion ask the Bidder for clarification of bids. The request for clarification and the response shall be in writing and no change in price or substance of the bid shall be sought, offered or permitted.

ii) No Bidder shall contact the Purchaser on any matter relating to its bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Purchaser, it should be done in writing.

iii) Any effort by a Bidder to influence the Purchaser in its decisions on bid evaluation, bid comparison or contract award decision may result in rejection of the Bidder's bid.

## **f) Evaluation of Technical Bid**

i) Prior to the detailed technical evaluation the purchaser will determine the substantial responsiveness of each bid to the Bidding Documents. A substantially responsive bid is one that conforms to all the terms and conditions of the Bidding Documents without material deviations.

ii) A bid determined as not substantially responsive will be rejected by the purchaser and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

iii) All the vendors will have to bring their equipment/machine for testing and technical evaluation/bench marking as and when asked for, if required. Separate communication will be sent in this regard.

The bidders short listed by the purchaser based on evaluation of their technical bids may be called for detailed discussion including presentation of their equipment system to a team selected by the purchaser for the purpose, at a specified date, time and venue, if needed.

**g) Opening of Financial Bids**

i) The purchaser will open the financial bids of only those bidders, which are found to be technically qualified to undertake the job. The time, date and venue of opening of financial bids will be intimated to these technical qualified bidders only.

ii) The Financial Bids of the technically qualified bidders shall be opened in the presence of their representatives, who are willing to participate, on the specified date, time and venue.

**h) Evaluation and Comparison of Bid**

i) The comparison shall be of all inclusive price of goods, inclusive of all costs as well as taxes paid or payable and the warranty period asked for.

ii) Arithmetical errors will be rectified on the following basis: if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity the unit price shall prevail and the total price shall be corrected. If the supplier does not accept the correction of errors, its bid will be rejected. If there is a discrepancy between words and figures, the amount in words will prevail.

iii) Bidders shall state their bid price for the payment schedule. Bids will be evaluated on the basis of this base price. Bidders are however, permitted to state an alternative payment schedule and indicate the reduction in bid price they wish to offer for such alternative payment schedule. The purchaser may consider the alternative payment schedule offered by the selected Bidder but it may not be binding on purchaser.

**i) Placement of Purchase Order**

The purchaser will place the purchase order on the successful bidder whose bid has been determined to be substantially responsive and has been determined as the best evaluated bid provided further that the bidder is determined to be qualified to perform the contract satisfactorily.

## **SECTION - III**

### **TERMS & CONDITIONS**

**1. Submission of Tenders:** Sealed tenders must be submitted in an envelope duly super scribing "Tender/File Ref.No., Description of item and Date of Opening" addressed to **The Director, Central Institute of Mining & Fuel Research, Barwa Road, Dhanbad - 826015 JHARKHAND, INDIA** in the Tender Box kept in the Office of the Stores & Purchase Officer, CIMFR, **latest by upto 4.00 PM on 07.04.2008 positively. Request for extension of submission date of tenders will not be considered.**

**2. Late/delayed tenders :** Late/delayed tenders due to any reason whatsoever will not be accepted / considered at all under any circumstance.

**3. Opening of Tenders:** The tenders received will be opened at **10.00 A.M.** on **08.04.2008** in the presence of the authorized representatives, if any, of quoting firm (one member only) at this office. **Request for extension of opening date of tenders will not be considered.**

**4. Earnest Money Deposit:** Tenderers shall have to deposit EMD of amount mentioned in our Global / Open Tender Notice in **Indian Rupees** or in equivalent amount in foreign currency in the form of Crossed Demand Draft/BG only in favour of Director, CIMFR, Dhanbad, issued by Scheduled/Nationalized Bank payable at Dhanbad, India, along with their tenders (with Technical Bid only). **The validity of the EMD submitted in the form of Bank Guarantee must be co-terminous with the validity of the offer. It must normally be valid for six months (180 days) from the date of opening of tender. Tenders received without earnest money will not be entertained/ considered at all and rejected summarily. Tenders received along with EMD in the form of Cheque/Cash will not be accepted/ considered and rejected.**

**Firms registered with DGS&D and NSIC may be exempted from payment of EMD if the product being quoted is actually manufactured by them and the product is registered with these agencies. Firms registered with these agencies selling products of other companies and not manufacturing the products being quoted by them are not allowed exemption from payment of EMD. Firms are to submit a legible photocopy duly attested, of Registration Certification of the products manufactured and registered with DGS&D and NSIC for availing EMD exemption before opening of Technical-Commercial Bids, otherwise tender submitted by them will not be considered and rejected summarily.**

**5. Forfeiture of EMD:** The earnest money deposited (EMD) will be forfeited if the vendor withdraws or amends, impairs and derogates from the tender in any respect within the period of validity of tender or fails to furnish the Performance Security Deposit as per Clause No. 6 - Performance Security Deposit mentioned below.

**6. Performance Security Deposit:** The successful tenderer will have to furnish an unconditional Performance Bank Guarantee in favour of the Director, CIMFR, Dhanbad valid up to sixty (60) days after the warranty from a Scheduled/Nationalised Bank in India for 10% of the total order value within twenty one (21) days of the placement of order for orders where full payment is to be made on Letter of Credit/Sight Draft or on delivery, failing which the purchase order/contract shall be terminated.

b. The successful tenderer will have to furnish an unconditional Performance Bank Guarantee in favour of the Director, CIMFR, Dhanbad valid up to sixty (60) days after the warranty from a Scheduled/Nationalised Bank in India for 10% of the total order value before the release of final payment where payment is to be made on satisfactory supply, installation, testing, commissioning, demonstration and final acceptance of the products.

**7. Refund of Performance Security Deposit:** The Performance Security Deposit will be returned to the successful vendor after sixty days from the date of the completion of warranty period and no interest would be paid thereon.

**8. Warranty:** Equipments should be under free ONSITE comprehensive warranty for a minimum period of three years from the date of completion of satisfactory installation, testing, commissioning, demonstration and final acceptance of the products (except for Sl. No. 1, 3 & 4 of our NIT where should be quoted to be Five (5) years. A satisfactory service during the warranty period is defined as 95% uptime. In case 95% uptime is not provided, the warranty period would be extendable by a period which is equivalent to the period during which 95% uptime was not provided. **The bidder will also ensure that the spares are available at least for three years after the warranty period for the operation and maintenance of the equipments supplied. The firms giving the warranty offer less than three years must specify the equivalent amount to be charged for additional warranty/per year which will be added to the price quoted for deciding Lowest Tender. Failing to quote the same will lead to rejection of the bid. This must be strictly complied.**

**9. Custom Duty and Excise Duty:** Our Institution is eligible for payment of concessional Custom Duty and exempted from payment of Excise duty.

a) In case, the tenderers are Indian Agents of the foreign suppliers and quoting prices on behalf of their foreign principals must enclose the proof of enlistment with DGS&D (**wherever required**). Date of enlistment must be before the date of opening of tenders. Tenders of agents not enlisted with DGS&D will be ignored and summarily rejected. The compulsory enlistment of Indian Agents of foreign principals with DGS&D is of general nature and does not confer on the Indian Agents the status of a supplier registered with DGS&D.

b) In case, the prices are quoted in foreign currency, it must be on FOB price. Indian Agency Commission/Technical Service Charges, if any, must also be shown separately and shall be payable in India in Indian Rupees only if the Indian Agent is registered with DGS&D. Kindly indicate Indian Agent's address, their kind of services and percentage Agency Commission (which will be reduced from invoice and paid in Indian Rupees Only). Also quotation should indicate whether Agency Commission is included / excluded in the FOB price.

c) In case of Domestic, the offer should contain the basic price and percentage of Excise Duty separately since we are exempted from payment of Excise Duty.

**10. Prices:** The price quoted should clearly mention whether

a) **FOR destination /Dispatching Station by registered road transport**

b) **FOR free delivery at this office Stores including Packing & Forwarding, freight, insurance charges, etc.**

c) **Where there is no mention of the above, the offers will be rejected as incomplete.**

d) **In case of Imports, the quotation should be for FOB price only.**

**11. Taxes:** The percentage rate of sales tax, resale tax, duties/levies and any other charges etc, should be clearly indicated in the tender, wherever chargeable. The packing charges must be included in the rates. **CIMFR is not authorized to issue C/D Forms.** However, the concessional rate of central sales tax is admissible to Research Institutions from certain States is also applicable to this Institute and necessary Concessional Sales Tax Certificate will be issued. The supplier should submit documentary proof while claiming octroi, naka etc. charges.

**12. Annual Maintenance Contract:** After the expiry of warranty period, ONSITE Comprehensive Maintenance Contract may be entered into for which the Annual Maintenance Contract (AMC) charges should invariably be quoted in terms of percentage (%) of cost on the exact amount inclusive of all taxes and duties of the product to be supplied.

Satisfactory services during AMC period is defined as 95% uptime. In case 95% uptime is not provided the AMC period would be extendable by a period which is equivalent to the period during which 95% uptime was not provided.

Response Time : Should be four hours

**Preventive Maintenance:** Tenderers should provide at least one preventive maintenance service every month during the AMC period.

**13. Training:** Tenderers should provide free training on the complete operation and care of the equipment and Software Packages to be supplied on mutually agreed terms.

**14. Validity of Tender:** The quotations shall be valid for a minimum period of **One Hundred Eighty (180) days from the date of opening of tenders.**

**15. Delivery:** Equipment may be delivered between 11.00 A.M. to 04.00 P.M. on all working days i.e. Monday to Friday at our Stores Section only.

**16. Payment - Indigenous Supplier:** Payment shall be made after delivery, satisfactory installation, testing, commissioning, demonstration and final acceptance of the ordered items by the user department, through an Account Payee cheque drawn on State Bank of India, Hirapur Branch, Dhanbad-826001 (Jharkhand), India within thirty (30) days from the date of submission of the bill. Bill(s) in triplicate duly pre-receipted with Rs.1/- revenue stamp will have to be presented for claiming payments.

**17. Liquidated Damages:** The LD clause of 01% per week subject to maximum 10% of the order value will be imposed on non-compliance of the order Terms & Conditions. The L.D may further be revised and enhanced as per the discretion of the Competent Authority, CIMFR on violation of the contractual terms of any form. Director, CIMFR reserves the right to go ahead with the procurement of ordered goods from any another vendor without giving any prior notice and cancel the purchase order. In such case, any additional impact on CIMFR over and above that contained in the Purchase Order shall be recovered from the successful vendor from the payment to be made by CIMFR or any of the CSIR Labs. to them towards earlier supplies, EMD or otherwise

**18 S.T. Registration No./ITCC/Distributorship/Dealership/Service Provider Certificates:**

Tenderers must attach a legible photocopy of the following documents positively along with their tenders.

- i) CST/Local Sales Tax Registration Certificate.
- ii) Latest Income Tax Clearance Certificate.
- iii) Authorised Distributorship/Authorised Dealership/Authorised Retailership/Authorised Service Provider Certificate from the manufacturers.

**19. Environmental conditions for the installation of equipments:** Tenderers should specify minimum environmental needs for installation of their Equipments such as air-conditioning specifications, power supply specifications including any special requirements like voltage regulators, etc.

**20. Software installation:** Tenderers should clearly specify the minimum hardware requirements for the installation of Software Packages positively.

21. Tenderers should note that they should offer their best products pertaining to Technical specifications given.

22. Tenderers should clearly indicate whether they are Original Equipment Manufacturers or authorised distributors/dealers/suppliers on behalf of manufacturers. Brand names & Model Nos. of all equipments and components offered should necessarily be mentioned.

23. Tenderers should furnish the experience of their organization in the area of manufacturing and/or supply of similar equipment.

**24. Tenderers should have a well established Office and Service and Support Centre in Kolkata / Dhanbad, India,** managed by qualified maintenance professionals along with documentary evidence to be attached with their tenders.

25. Tenderers should indicate the names (along with addresses, Telephone nos., Fax No., Contact person, dates of supply, etc.) of various Government, Public Sector Departments and other organizations where they have supplied and installed the similar equipments and are duly maintaining them.
26. Tenderers should furnish all details of Performance Certification/Bench marking of their Equipments by recognized National/International Institutes Govt. Organizations like D.O.E. (Dept of Electronics), etc as applicable.
27. All prices shall be quoted clearly both in figures and words duly taking into account all concessions provided by the Govt. of India as on the date of tender. In case of discrepancy in Unit and Total prices, unit price shall be taken to be final price for the purpose of calculations.
28. Tenders incorporating additional conditions are liable to be rejected.
29. Complete details including final specifications of the equipments offered/quoted should be furnished along with brochures/literature mentioning all features.
30. Tenderers should indicate whether they are the OEMs/. Authorised Distributors/Authorised Dealers/Authorised Retailer of the equipments offered and have valid license to sell Equipment.
31. Tenderers will also indemnify CIMFR against all possible damage due to any Copyright violation by them.
- 32 Only legal and authorised copy of Software Packages with all original manuals, installation and performance guide, etc. complete in all respects are required to be supplied.
33. Tenderers will replace equipments in toto, in case of any malfunctioning or other similar problems arise after supply of the equipment.
34. Equipment supplied will include all Operational and Maintenance Manuals, tutorials, reference manuals, installation and performance guide, etc. complete in all respects. Connecting cable and/or any other part/device which is essentially required for making the equipment operational is required to be supplied along with the equipment and n additional cost.
35. Printed conditions of the tenders shall not be binding on CIMFR.
36. CIMFR is an R&D organization under CSIR, Ministry of Science & Technology, Govt. of India. Therefore it is requested to **quote concessional rates applicable to the R&D organizations since the equipment is required for research purposes.**
37. Offers for stores vaguely described as "Best Indian Make", "Foreign Make" will be ignored while considering the tenders.
38. Details of Equipments supplied to CSIR Labs/Institutes: The tenderers who have supplied identical or similar equipment to other CSIR Labs/Institutions have to furnish the details of such supplies for the preceding three years along with the prices eventually or finally paid positively.
39. **Responsibility:** The responsibility lies with the successful tenderer, if any damage or loss to the property of the Institute occurs while undertaking and executing the contract.
40. **Shortage of Supplies:** Suppliers will have to make the good the shortages, if any, which is revealed after opening the packages. The Stores, which are spoiled/damaged during transit due to faulty packing will have to be replaced by the suppliers. The product should have warranty for workmanship, performance and service for a minimum period of twelve months from the date of acceptance of replacement of spares/parts during warranty period. The replacement should be done free of all costs including to and fro Air Freight, packing, forwarding and insurance charges.
41. **Defects and Liability Period:** Thirty six months from the date of virtual completion, installation and commissioning of the equipments as certified by CIMFR, Dhanbad, India.

**42. Damage and Unaccepted supply :** The material found to be damaged and declared rejected should be collected by you at your risks and costs within 21 days from the date of intimation by CIMFR, otherwise ground rent will be charged.

In addition to the Terms and Conditions mentioned above, Terms and Conditions for the items offered from abroad are as follows:

43. The detailed specifications of the material offered should be given. Relevant technical Literature and descriptive catalogue / pamphlet should also be attached with the offer.

44. **FOB Price only to be indicated.** Other charges applicable to be indicated separately.

**45. INSURANCE:** Insurance will be done by our own means for imports. Please intimate immediately after shipment about the Airway Bill No. For indigenous items the cost must include the insurance charges.

Bill of Lading, consignment etc. to The Director, CIMFR, P.O + Dist: Dhanbad, Dhanbad, Jharkhand, India.

**46. WARRANTY:** Warranty period should be for a minimum period of **three years onsite comprehensive.**

**47. COUNTRY OF ORIGIN:** Please specify Place/County of Origin and the Place/Country from where goods will be finally shipped. These particulars are very important for establishment of Letter of Credit and arranging insurance.

**48. VALIDITY PERIOD:** Your offer should be valid for at least One Hundred Eighty (180) days from the date of opening of tenders.

49. Please also indicate names and addresses of some of the Indian Organizations to whom you have supplied material, if any, under reference.

50. This Institute is eligible for payment of concessional customs duty under OGL Scheme. Actual User-Condition (Non-industrial-R&D institution).

**51. INDIAN AGENT'S COMMISSION:** If you have any Agent in India, please indicate specifically whether the amount of agency commission payable to the agent is included in the FOB Price or not. Moreover, Indian Agent should have compulsory registration with DGS&D, Govt. of India (**wherever required on case to case basis**). Please note that the tender will not be considered if the Indian Agent is not Compulsorily registered with DGS&D, Govt. of India and Agency Commission will not be paid to the Indian Agent unless a legible photocopy of DGS&D Registration Certificate duly attested is submitted to this office. The Indian Agents Commission will be paid in Indian Rupees only within thirty days from the date of commissioning and final acceptance of the whole system by CIMFR, Dhanbad-828 108, India. The role played by the Indian Agents in rendering assistance to your customers may also be specified.

**52. FREIGHT:** The mode of dispatch should be Ocean Freight/Air Freight preferably by Air India Flight and on To-Pay basis only. Please indicate the approximate Air Freight Charges for Kolkata Air Port, India. The consignments are required to be shipped by Air India (Freight to pay) up to Kolkata Airport, India. All the documents are to be made in favour of Director, CIMFR, Dhanbad-826 001, India and forwarded to our Banker.

For speedy clearance, please specify our Purchase Order Reference No. and date on the top of the parcel as well as on the Airway bill without fail. Address all the consignments to Director, CIMFR, Dhanbad-826 001, India and not to Bank. The ordered materials are being imported under Open General License.

The following documents may be sent to us directly while dispatch.

Invoice in quadruplicate with deduction of Agency Commission, if any, Packing List, Delivery Challan, Country of Origin Certificate, Literature, if any, should be enclosed.

### 53. PAYMENT TERMS :

**Term I** - In case of indigenous orders, the payment will be on credit basis i.e. 100% after receipt of material in good condition, installation, testing, commissioning, satisfactory demonstration, final acceptance of the whole system and on submission of unconditional Performance Bank Guarantee for 10% of the total order value valid till 60 days after the warranty period from a Indian Scheduled Bank duly recognized by RBI.

**Term II** - In case of import orders, 80 percent value of goods will be paid through an Irrevocable Letter of Credit on submission of shipping documents. Balance 20 percent value of goods will be paid through L/C excluding Indian Agency Commission, if any, after installation, testing, commissioning, satisfactory demonstration, final acceptance of the whole system and on submission of unconditional Performance Bank Guarantee for 10% of the total order value valid till 60 days after the warranty period from a Foreign Bank duly endorsed by Nationalized Bank in India.

**Term III** - 100% payment after satisfactory installation & commissioning of the equipment if it is to be supplied for the first time in India or otherwise if the party does not have successful installation in India, against submission of unconditional Performance Bank Guarantee for 10% of the total order value within twenty one (21) days of the placement of Purchase Order valid till 60 days after the warranty period from a Foreign Bank duly endorsed by Nationalized Bank in India. Director, CIMFR reserves the right to change the payment terms at his discretion from case to case basis depending on the merit of the case.

54. The tenders are liable to be cancelled if any of the conditions noted herein are not complied with. Hypothetical, ambiguous and conditional tenders will not be entertained at all and rejected summarily.

**55. Goods should not be dispatched until firm Purchase Order is received by the successful vendor.**

56. Director, CIMFR reserves the right to delete or alter the item given in the enclosed annexure depending on prevailing requirements.

57. Director, CIMFR reserves the right to accept or reject any tender in completely or in part thereof without assigning any reason.

### 58. Arbitration :

Except where otherwise provided in the Contract, all questions and disputes relating to the meaning of the specifications, instructions and terms & conditions herein before mentioned and as to the quality of the materials, as to any question, claim, right, matter or thing whatsoever, in any way arising out of or relating to the Contract. Specifications, estimates, instructions, orders

or these conditions or otherwise concerning the works, or the execution of the same whether arising during the process of the work or after the completion or abandonment thereof shall be **referred to the sole arbitration of a person nominated by the Director General, Council of Scientific & Industrial Research, New Delhi**, and if he is unable or unwilling to act to the sole arbitration of some other person appointed by him willing to act as such arbitrator. The submission shall be deemed to be submission to Arbitration under the meaning of the India Arbitration & Conciliation, 1996 or any satisfactory modification or reenactment thereof for the time being in force conclusive and binding on all parties of the Contract. **The venue of the arbitration will be Dhanbad only.**

**In the case of a dispute between the purchaser and a foreign supplier, the dispute shall be settled by arbitration in accordance with provision of clause above. But if this not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission of International Trade Law) Arbitration Rules. The venue of the arbitration shall be the place from where the order is issued.**

## **SECTION - IV**

### **FORMATS FOR BID SUBMISSION** **Checklist for Bid Submission**

The following check-list must be filled in and submitted with the bid document:

#### **Technical Bid:**

1.	Has the tender document issued to you?	Yes / No
2.	Have you attached the technical bid form?	Yes / No
3.	Have you attached a copy of the last audited balance sheet of your firm?	Yes / No
4.	Have you attached proof of the manufacturer's authorization?	Yes / No
5.	Have you attached the details of the income tax registration and latest income tax clearance certificate?	Yes / No
6.	Have you attached the statement of deviations from the technical Specifications in the format?	Yes / No
7.	Have you provided details of your maintenance infrastructure facilities including addresses of the service centers in the format	Yes / No
8.	Have you attached the technical details of the goods and services offered as a part of this bid document?	Yes / No
9.	Have you attached the copies of relevant work orders executed during the last three years?	Yes / No
10.	<b>Have you attached the details of identical or similar equipments supplied to other CSIR Labs/Institutes for the preceding three years together with prices eventually or finally paid?</b>	Yes / No
11.	<b>Have you attached photocopy duly attested of Certificate of compulsory Enlistment of Indian Agents of foreign principals with DGS&amp;D if quoting on their behalf? Date of enlistment must be before the date of opening of tenders.</b>	Yes / No
12.	Have you attached Service Provider Certificate issued by the Manufacturer?	Yes / No

## Financial Bid:

1.	Have you attached the Financial Bid?	Yes / No
2.	Have you attached the price schedule for the goods/services offered in the Format?	Yes / No
3.	Have you attached the statement of deviations from the Financial terms and conditions in the format?	Yes / No

Please arrange your tender document for each part as given below:

### **Earnest Money Deposit :**

#### **TECHNICAL BID:**

##### **Technical Bid Form**

Copy of the Last Audited Balance Sheet of the company

Income Tax Registration Certificate/PAN No.and latest Income Tax Clearance Certificate

Proof of Manufacturer's authorization

Photocopy of Warranty Service Provider Agreement between the manufacturer and the Service Provider.

Statement of Deviation from the technical specifications

Details of service centers at Dhanbad

Photocopy duly attested of Certificate of compulsory enlistment of Indian Agents of foreign principals with DGS&D if quoting on their behalf. Date of enlistment must be before the date of opening of tenders?

Copies of relevant work orders

Details of supplies of identical or similar equipment made to other CSIR Labs/Institutions for the preceding three years together with price eventually or finally paid.

#### **FINANCIAL BID:**

##### **Financial Bid Form**

Estimated quantity and Financial Bid Analysis

Statement of Deviations from Financial terms and conditions

# Technical Bid Form

(To be submitted on the firm's Letter Head and signed by an authorized person)

To ,

The Director  
Central Institute of Mining & Fuel Research  
P.O. DHANBAD Barwa Road,  
DHANBAD – 826015, Jharkhand,INDIA

**Ref: Tender No.CIMFR/PUR/14(7)2007 date: 07.03.2008.**

Sir,

Having examined the bidding documents, the receipt of which is hereby duly acknowledged, we, the undersigned offer to supply and deliver goods as per the schedule of requirements and in conformity with the said bidding documents. We undertake, if our bid is accepted, to deliver the goods in accordance with the delivery schedule specified in the bidding documents.

If our bid is accepted, we will submit a unconditional performance bank guarantee for the sum equivalent to 10% of the Contract Price i.e. Total Order Value for the due performance of the Contract, in the form prescribed by the Central Institute of Mining & Fuel Research, Dhanbad.

We agree to abide by this bid for a period of One Hundred Twenty days after the date fixed for opening and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

We declare that we are the manufacturers/authorized agents/distributor of

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that we/our principals are equipped with adequate machinery for production, quality control and testing of offered products manufactured/developed and used by us.

2. We hereby offer to supply the Goods/Services at the price at the rates mentioned in the Financial Bid.
3. We enclose herewith the complete Technical Bid as required by you. This includes:

## Technical Bid Form

Copy of the last audited balance sheet of the company  
Proof of Manufacturers authorization.  
Technical details of the goods and services offered.  
Statement of deviation from the technical specifications  
Details of local service centers  
Product catalogues/user manual/other informative material about our products and Services.

Details of supplies of identical or similar equipment to other CSIR Labs/Institutes for the preceding three years together with prices eventually or finally paid.

Photocopy duly attested of Certificate of compulsory enlistment of Indian Agents of Foreign principals with DGS&D if quoting on their behalf. Date of enlistment (It must be before the date of opening of tenders).

4. We have carefully read and understood the terms and conditions of the bid document and the conditions of the contract applicable to the bid document and we do hereby undertake to supply as per these terms and conditions.

5. Certificate that the bidder is:

A Sole proprietorship firm and the person signing the bid document is the sole proprietor/constituted attorney of the sole proprietor, or

A partnership firm, and the person signing bid document is a partner of the firm and he has authority to refer to arbitration disputes concerning the business of the partnership by virtue of the partnership agreement/by virtue of general power of attorney, or

A company and the person signing the document is the constituted attorney.

**(NOTE: Delete whatever is not applicable. All correction/deletions should invariable by duly attested by the person authorized to sign the bid document)**

6. We do hereby undertake take, until a formal work order is prepared and executed, this bid, together with your written acceptance thereof and placement of letter of intent awarding the work order, shall constitute a binding contract between us.

Dated this day 2004 Signature of Bidder

**Details of enclosures.**

**Full Address** \_\_\_\_\_

**Telephone No.** \_\_\_\_\_

**Telegraphic Address:** \_\_\_\_\_

**Fax No** \_\_\_\_\_

**E-Mail** \_\_\_\_\_

**COMPANY SEAL**

**STATEMENT OF DEVIATIONS FROM TECHNICAL SPECIFICATIONS AND  
SCHEDULE OF REQUIREMENTS**

Following are the Technical deviations and variations from the Technical specifications and Schedule of Requirements. These deviations and variations are exhaustive. Except these deviations and variations, the entire work shall be performed as per your specifications and documents.

SI No.	Item	Statement of Deviations / Variations

Signature of the Bidder

Name:

Date:

Place:

Address:

Company Seal

**MAINTENANCE INFRASTRUCTURE FACILITIES INCLUDING ADDRESSES OF  
THE LOCAL SERVICES CENTRES**

<b>LOCATION</b>	<b>ADDRESS OF SERVICE CENTRE</b>	<b>NAME OF THE CONTACT PERSON WITH TEL. No. Fax No. and Email</b>	<b>Total No. of qualified service engineers</b>	<b>Remarks</b>

**Signature of the Bidder**

**Name:**

**Date:**

**Place:**

**Address:**

**Company Seal**

## **Financial Bid Form**

(On the Letter Head of the firm submitting the Bid Document)

To  
The Director  
Central Institute of Mining & Fuel Research  
P.O.DHANBAD, DISTT: DHANBAD  
PIN - 826015, Jharkhand, INDIA

**Ref: Tender No.CIMFR/PUR/14(7)2007 dated 07.03.2008**

Sir,

Having examined the bidding documents and having submitted the technical bid for the same, we, the undersigned, hereby submit the Financial Bid for supply of goods and services as per the schedule of requirements and in conformity with the said bidding documents.

We hereby offer to supply the Goods/Services at the prices and rates mentioned in the Financial Bid.

We do hereby undertake that, in the event of acceptance of our bid, the supply of Goods/Services shall be made as stipulated in the schedule to the Bid document and that we shall perform all the incidental services.

The prices quoted are inclusive of all charges including installation and commissioning charges in the Central Institute of Mining & Fuel Research Institute, Dhanbad.

We enclose herewith the complete Financial Bid as required by you. This includes:

Financial Bid Letter

Price Schedule

Statement of deviations from Financial terms and conditions.

We agree to abide by our offer for a period of One Hundred Twenty (120) days from the date fixed for opening of the bid documents and that we shall remain bound by a communication of acceptance within that time.

We have carefully read and understood the terms and condition of the bid document and we do hereby undertake to supply as per these terms and conditions. The Financial Deviation are only those mentioned in the statement of deviation from financial terms and conditions.

Certified that the bidder is:

A sole proprietorship firm and the person signing the bid document is the sole proprietor/constituted attorney of sole proprietor.

Or

A partnership firm and the person signing the bid document is a partner of the firm and he has authority to refer to arbitration disputes concerning the business of the partnership by virtue of the partnership agreement/by virtue of general power of attorney.

Or

A company and signing the bid document is the constituted attorney.

(Note: Delete whatever is not applicable. All corrections/deletions should invariably be duly attested by the person authorized to sign the bid document).

We do hereby undertake, that until a formal work order is prepared and executed, this bid, together with your written acceptance thereof and placement of letter of intent awarding the work order, shall constitute a binding contract between us.

Dated this day of \_\_\_\_\_ 2007 Signature of Bidder

Details of enclosures

Full Address:  
Telephone No.  
Telegraphic Address:  
E-mail:

COMPANY SEAL

**PRICE SCHEDULE - Estimated Quantity and Financial Bid Analysis**

SI No	Item Name	Qty.	Manufacturer	Model Name & Version	Compliance to suggested Technical Specification	Operating System Environment	Unit Cost Rs.	Total cost (inclusive of all other charges)

1. Attach sheet giving detailed Technical Specification and deviations for the suggested systems.

**NOTE**

- (i) For Financial bid comparison total Value in Col. No. 9 shall be the basis.
- (ii) Unit value quoted in actual quantity of work shall form the basis.
- (iii) The Bid should have Col. 3 x Col. 8 = Col.9. Any error in the Table of any bidder is liable to be out rightly rejected.
- (iv) The price quoted should be inclusive of all charges including all applicable taxes, Octroi, freight and handling charges, and all other miscellaneous expenses.
- (v) In case of discrepancy between unit price and total price, the unit price will prevail.
- (vi) Annual Maintenance Charges after warranty period should be quoted separately.

Signature of the bidder

Name :

Place :

Date :

Address :

Company Seal

### **STATEMENT OF FINANCIAL DEVIATIONS**

Following are the financial deviations and variation(s) from the exceptions to the specifications and documents for the Bid document. These deviation(s) and variation(s) are exhaustive.

Except these deviation(s) and variation(s), the entire work shall be performed as per your specifications and documents.

<b>SI No.</b>	<b>Section No.</b>	<b>Clause No.</b>	<b>Statement of Deviations / Variations</b>

S. No. Section No. Clause No. Statement of deviation(s) and variation(s)

Signature of the bidder

Name:

Place:

Date:

Address:

Company Seal

**BID SECURITY FORM**

WHEREAS .....  
(hereinafter called "the Bidder") has submitted its bid dated .....  
.....(Date of submission of bid) for the supply of .....  
.....(Name and/or description of the goods)  
(Hereinafter called "the bid").

KNOW ALL PEOPLE by these presents that WE  
.....(Name of bank) of  
..... (Name of country), having our registered office at  
(address & phone & fax no. of bank) (hereinafter called "the bank"), are bound unto  
..... (Name of Purchaser) (hereinafter called "the  
Purchaser") in the sum of ..... For which  
payment well and truly to be made to the said purchaser, the Bank binds itself, its  
successors, and assigns by these presents, Sealed with the common Seal of the said Bank  
this ..... Day of ..... 200.....

THE CONDITIONS of this obligation are:

1. If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form; or
2. If the Bidder, having been notified of the acceptance of its bid by the Purchaser  
During the period of bid validity:
  - a) Fails or refuses to execute the Contract Form if required; or
  - b) Fails or refuses to furnish the performance security, in accordance with Instruction to Bidders.

We undertake to pay the purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is owing to it, owing to the occurrence or one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee shall remain in force up to and including 180 (One Hundred Eighty) days after the period of the bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

**PERFORMANCE SECURITY FORM**

To: \_\_\_\_\_ (Name of Purchaser)  
WHEREAS \_\_\_\_\_ (Name of Supplier) hereinafter called "the Supplier" has undertaken, in pursuance of Contract No. \_\_\_\_\_ dated \_\_\_\_\_ 2007 to supply \_\_\_\_\_ (Description of Goods and Services) hereinafter called "the Order" AND WHEREAS it has been stipulated by you in the said order that the Supplier shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the order.

AND WHEREAS we have agreed to give the Supplier a Guarantee:  
THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of \_\_\_\_\_ (Amount of the Guarantee in Words and Figures) and we undertake to pay you, upon your first written demand declaring the sum or sums within the limit of \_\_\_\_\_ (Amount Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the \_\_\_\_\_ day of \_\_\_\_\_ 2007

**Signature and Seal of Guarantors**

Date

**Address**

All correspondence with reference to this guarantee shall be made at the following address:

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
(Name & address of the lab)

\*\*\*\*\*  
\*\*\*\*\*THE END\*\*\*\*\*  
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