



RRMD, BARC
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Government of India
Bhabha Atomic Research Centre
Research Reactor Maintenance Division

TENDER NOTICE

Tender Notice No: RRMD / TR- 1 / TN-28 /2021

Date: 13/09/2021

To,
(Company name)

Sub: Tender enquiry for supply, installation and commissioning of CCTV Camera System in Radioactive Area

Sealed tenders, in two parts in the prescribed format, are hereby invited for and on behalf of the President of India by the Head, RRMD BARC, Trombay, and Mumbai-400085 for supply, installation and commissioning of CCTV Camera System in Radioactive Area as per specifications from experienced vendors having adequate experience and capabilities to execute similar works.

i.	Name of Work	Supply, Installation and Commissioning of CCTV Camera System in Radioactive Area
ii.	Period of Completion	6 (Six) months
iii.	Quotation Submission	Submission of quotation shall be done only through registered post/speed post, through Indian postal services addressed to "AO-III, RG Office, Dhruva, BARC, Trombay, Mumbai-400085", so as to reach this office latest by 15.00 hrs on 29.09.2021 , super scribing the 'QUOTATION' and our tender Ref. No., on the envelope. Hand delivery or courier will not be accepted.
iv.	Tender document is prepared in two parts viz. Part 'A' (Technical Bid) and Part 'B' (Price Bid). Part 'A' consists of Technical Bid (Technical Specifications), Schedule 'A' (List of Materials to be Supplied by the Department) and Bill of Quantity.	
v.	Tender Part 'A' Opening date	30.09.2021
vi.	Tender Part 'B' Opening date	Will be decided after technical evaluation.

Quotations are required to be submitted in separate sealed and super-scribed envelopes containing and indicating the following.

I	First Envelope	Part 'A'
II	Second Envelope	Part 'B' (Price Bid)

All the sealed envelopes shall then be placed in another envelope, sealed & super-scribed with the name of the work, last date of tender submission and submitted through registered post/speed post to the address mentioned above.

The quotation shall be in the format of schedule 'B' of tender, and shall include the Ref. No. of this Tender enquiry, PAN no. and GSTN of the firm. The scope of work and the terms and conditions are given below.

1.0 Scope of the work:

The work involves supply, installation and commissioning of CCTV Camera System in Radioactive Area with the following:

- 1.1 Supply of Cameras, NVRs, Ethernet Switches, Cat6 Cable, Conduits and required accessories.
- 1.2 Installation of 6 nos. of cameras in potentially radioactive area and laying of Ethernet cables.
- 1.3 Integration and commissioning of CCTV System

2.0 Terms and conditions:

- 2.1 The offer should be valid for consideration for at least 45 days from due date of the offer.
- 2.2 The work shall be completed within **six months** after issue of the work order.
- 2.3 Payment would be released after satisfactory completion of the entire job only. Vendor should submit bills in triplicate along with an advance stamped receipt. Release of advance or interim payment cannot be considered.
- 2.4 **Taxes:** Income tax @ 2% and other taxes as applicable will be deducted from your bill amount. It shall be ascertained that the Invoice raised by a registered supplier of taxable goods/services along with other details specifically indicates location of supply, tax component to be separately indicated in the invoice.
- 2.5 The vendor should also clearly reply in his tender to "whether the contractor / vendor has any relative working in BARC or the contractor himself is an ex-employee of BARC or the contractor has any ex- employee of DAE on his payroll".
- 2.6 The employees deputed at site by the contractor should have a valid Police Verification Certificate.
- 2.7 Contractor should mention their valid **PAN** No. and GSTIN in the quotation, failing which the offer shall be rejected.
- 2.8 No party shall disclose any information to any third party concerning the matters under this contract generally. In particular, any information identified as "Proprietary" in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party. This clause shall apply to the sub-contractors, consultants, advisers or the employees engaged by a party with equal force.
- 2.9 The vendor or sub-vendor, consultant, adviser or the employees engaged by the contractor shall not use BARC's name for any publicity purpose through any public media like Press, Radio, TV or Internet without the prior written approval of BARC.

3.0 Safety and Security:

- 3.1 All the persons should be physically and mentally fit. The responsibility of all safety precautions related with a particular job at site primarily lies with the Contractor. The contractor & his persons shall strictly observe all security and safety regulations prevailing at the site. All the workers, supervisors & engineers of the contractor shall have proper medical certificates issued by the competent authorities.

- 3.2 The contractor or executing agency shall adopt adequate safety measures as per the Job Hazard Analysis (JHA) control measures suggested. The personal protective equipment to contract workers, supervisors & engineers shall be supplied by the contractor at his own cost.
- 3.3 All workers, supervisors & engineers of the contractor shall wear necessary protective clothing, helmets & canvas/safety shoes properly laced & follow the safety requirements strictly, while working at site.
- 3.4 Contractor personnel shall also abide by the Radiation Safety precautions as directed by the Health Physicist of the site.
- 3.5 BARC shall not be responsible for any damage, injury, death etc of any contractor's personnel under any circumstances. No compensation claim shall be admitted in this regard. All workers should be insured at the cost of the contractor.
- 3.6 All covid-19 precautions are to be strictly followed.
- 3.7 Security instructions should be strictly adhered to.
- 3.8 The employees deputed at site by the contractor should have a valid Police Verification Certificate.

4.0 Instructions to Tenders:

- 4.1 Price quoted shall be filled up in the same format given in the Schedule-B with GST if any.
- 4.2 You are requested to contact Shri Patel N. V., SO (E) on Tel no. 25596286/4323 from 10 AM to 5 PM to arrange entry permit if anyone wants to visit the BARC to assess the job clearly and specifically before making the offer.
- 4.3 The acceptance of the tenders will rest with Head, RRMD who does not bind himself to accept the lowest offer, and reserves to him the authority to reject any or all the tenders received without assigning any reason.
- 4.4 Quotation received after the due date and time shall be summarily rejected.

Thanking you,

Yours faithfully,

Sd/-
Head, RRMD, BARC
(For and on behalf of the President of India)

Enclosures: Schedule –A & B

Schedule –A

Tender Notice No: RRMD /TR-1/ TN-28 /2021 dated 13 /09 /2021

Name of Work: Supply, installation and commissioning of CCTV Camera System in Radioactive Area

Sl. No.	Description	Qty	Unit	Rate
1.	Water	As required	Litre	Free
2.	Electricity	As required	KWH	Free

Schedule – B

Tender Notice No: RRMD /TR-1/TN-28 /2021 dated 13/09 /2021

Name of Work: Supply, installation and commissioning of CCTV Camera System in Radioactive Area

Sl. No	Name of items	Qty (Q)	Supply Rate (S)	Installation Rate (I)	Item wise Supply Cost (S x Q)	Item wise Installation Cost (I x Q)
1.	Supply, installation & commissioning of outdoor IR IP PTZ 25X, IP 66 Cameras having ONVIF compatibility with accessories as per specifications in Annexure-I	6 nos.				
2.	Supply of outdoor IR IP PTZ 25X, IP 66 Cameras having ONVIF compatibility with accessories as per specifications in Annexure-I	20 nos.		----		----
3.	Supply of 8 Channel Network Video Recorder with ONVIF support as per specifications in Annexure-I	2 nos.		----		----
4.	Supply of 8-Port 10/100/1000 Mbps PoE with 2 Combo SFP ports & FO patch cords as per specifications in Annexure-I	4 nos.		----		----
5.	Supply of workstation with Client Software for camera viewing as per specifications in Annexure-I	1 nos.		----		----
6.	Supply of Cat6 Cable (Roll of 305 meter)	2 nos.		----		----
7.	Supply of 25 mm PVC conduit along with fixing accessories, laying of Cat6 cables in conduits and fixing on concrete wall.	200 meters				
8.	Integration of cameras with NVR, configuration and commissioning of complete CCTV System	1 lot	----		----	
9.	Total basic cost of supply					
10.	Total basic cost of Installation					
11.	GST on basic cost of Supply					
12.	GST on basic cost of installation					
13.	Total Cost (including all taxes & levies)					

Signature of the contractor with seal

Note: The prices shall be quoted clearly without any overwriting. Overwriting/correction are not acceptable.

Annexure-I
Technical Specifications for CCTV Camera System

For Items at Sr. No. 1 & 2 in Schedule-B: Outdoor IR IP PTZ 25X, IP66 Cameras

Parameter	Specifications / accessories
Resolution	At least 2 Mega Pixels (1920×1080)
Image Sensor	CMOS
Signal System	PAL/NTSC
Min. Illumination	Color: 0.001 lux, BW: 0 lux with IR
Shutter Time	1 to 1/100,000 second
Day & Night	Dual IR Cut Filter (with auto switching)
Wide Dynamic Range	At least 140 dB
Optical Zoom	At least 25x
Digital Zoom	At least 16x
Focal Length	Variable from 4.8mm to 120mm
Angle of View	Horizontal: More than 58° when fully zoomed out. Vertical: More than 33° when fully zoomed out.
Aperture Range	From F1.5 to F3.8
Pan Range	Panning should be there for 360°
Tilt Range	From -16° to 90° with Auto flipping
IR Illumination	At least 6 IR LEDs should be there for illumination.
IR Range	Up to 140 meter. IR irradiation angle should get adjusted with Zoom.
Video Compression	IH+265/H.265/H.264/M-JPEG
Main Video Stream	PAL: 25fps (1920×1080, 1280×720, 704×576, 640×480) NTSC: 30fps (1920×1080, 1280×720, 704×480, 640×480)
Image Setting in camera	Saturation, brightness, contrast, sharpness should be adjustable
Smart Defog	Yes
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTSP, PPPoE, NTP, UPnP, SMTP, IGMP, QoS, IPV4, MULTICAST, RTMP
System Compatibility	ONVIF (PROFILE S/T/G)
Remote Connection	At least 6 remote connections should be allowed.
Communication Interface	1 RJ45 (10 /100 Mbps)
On-board storage feature	Provision for built-in Micro SD card slot with support up to 256 GB
Operating Conditions	-40°C to 70°C (IR OFF), -40°C to 40°C (IR ON), 0-95% RH
Power Supply	DC12V±10% ; PoE feature is also required.
Protection	IP66, Lightning protection, surge protection and voltage transient protection
Heater	Yes
Mounting	Wall Mount
Accessories	Power supply module and mounting accessories

For Items at Sr. No. 3 in Schedule-B: 8 Channel NVR with ONVIF

Parameter	Specifications
Operating System	Embedded LINUX
IP Camera Inputs	8 channels
Camera Integration	ONVIF Profile S
Video output Interface	HDMI x 1 (4K max), VGA x1 (1080P)
Display Resolution	3840 x 2160, 1920 x 1080, 1280 x 720
Display Split	1x1, 2x2, 3x3
Recording Compression	H.265 smart codec / H.264 / MJPEG
Recording resolution	Up to 3840 x 2160 @ 30 fps
Bit Rate	1 to 8192 Kbps
Recording Mode	Manual; Schedule, Regular [Continuous], Motion Detection, Alarm
Alarm Input	At least 4 inputs
Alarm Output	At least 1 output
Internal Storage	2 TB Storage (provision should be there to connect 2 HDDs)
Ethernet for communication	1 x RJ-45 port (10/100/1000 Mbps)
PoE	8 Ports (IEEE802.3 at/af)
Supported protocols	IPv4, TCP/IP, HTTP, HTTPS, RTSP/RTP/RTCP, SMTP, DHCP, NTP, DNS, FTP, P2P
Network Throughput	Input and output total 128 Mbps
USB	2 ports; USB 2.0 or better
User Management	Administrator, Regular User
Power Supply	100 V AC to 240 V AC, 50 Hz/60 Hz
Power rating of PoE	Total PoE power rating should be around 120 W and 30 W for a single port.
Environmental Condition	Operating Temperature: -10°C to 55°C Storage Temperature: -20°C to 70°C Humidity: 0 to 95 %
EMI/EMC	Compliant to FCC Part 15B, EN 55032: 2015, EN 61000-3-2: 2014, EN 61000-3-3: 2013 for emissions Compliant to EN 50130-4: 2011+A1: 2014 for immunity
Accessories	mounting accessories, power cord, manual etc.

For Items at Sr. No. 4 in Schedule-B: Ethernet switch with 8-Port 10/100/1000 Mbps PoE and 2 Combo SFP ports

Parameter	Specifications
Size of the Switch	19" standard rack-mount width and 1U height
Ports	8 x 10/100/1000 BASE-T PoE ports (compliant to IEEE 802.3at) 2 x 100/1000 Mbps SFP ports (Compliant to IEEE 802.3z)

PoE Budget	More than 120 W
Full/Half-Duplex	<ul style="list-style-type: none"> • Full/half-duplex for 10/100 Mbps speeds • Full-duplex for 1000 Mbps speed
Switching Capacity	Around 20 Gbps
Power Supply	100 to 240 V AC, 50/60 Hz
Ventilation	Without fan
Environmental Condition	Operating Temperature • -5 to 50 °C Storage Temperature • -40 to 70 °C (- Operating Humidity • 10% to 90% non-condensing
Accessories	Power cord and mounting brackets

For Item at Sr. No. 5 in Schedule-B: Workstation with Client Software for Camera viewing

Parameter	Specifications / accessories
Operating System	Windows 10 or higher
Processor	Intel Core i5 10 th generation or better
RAM	8 GB DDR4
Storage	512 GB SSD
Video Output	VGA/HDMI/ DVI
Network	RJ-45 (10/100/1000 Base-T)
Client Software	ONVIF Compatible
Display	32" with full HD Resolution
Accessories	Keyboard and Mouse, Video cable and power cord

Inspection & Testing:

Inspection & testing of all items will be carried out by BARC at vendor's works for ascertaining conformity to functional & performance specifications.

Guarantee:

The material should be guaranteed against any defective design & poor workmanship for a period of 12 months from the date of receipt of material at purchaser's end.