

Tender Reference No.AO/3-18/2019-2020/3058

Date: 17 March, 2021


TENDER (E - PROCUREMENT MODE)

for

Supply, fabrication, inspection, testing and commissioning of Yard Fire hydrant pipeline with Hydrants.




Manora Peak, Nainital-263001, Uttarakhand, India
Tel +91 05942-235136, 270700 | Fax +91 05942-233439 | directoraries@aries.res.in | www.aries.res.in


Registrar
ARIES, Manora Peak
Nainital.

INDEX

| Title | Page No |
|--------------------------------------------------------------------|----------------|
| A. Background | 3 |
| B. Details | 3 |
| C. Time Schedule | 3 |
| D. Subject and Brief Scope of Work | 3 |
| E. Product Utilization | 3 |
| F. Contact information & contact person for technical queries | 4 |
| G. Contact information & contact person for administrative queries | 4 |
| H. Instructions for Online Bid Submission | 4 |
| I. Searching for Tender Document | 5 |
| J. Preparation of Bids | 5 |
| K. Submission of Bids | 6-7 |
| L. Assistance to Bidders :- | 7 |
| M. Technical bid | 7 |
| N. General instructions for price bid | 8 |
| O. Award of Contract | 8 |
| P. Earnest Money Deposit | 8 |
| Q. Other terms and conditions of the tender | 8-9 |
| R. Preference to 'MSME' | 10 |
| S. Public Procurement (Preference to Make in India) | 10 |
| T. Check list of document (Technical Bid) Annexure-I | 11 |
| U. Technical Specification and compliance statement Annexure-II | 12-17 |
| V. Tender Acceptance Letter, Annexure-III | 18 |
| W. Undertaking regarding Blacklisting IV | 19 |
| X. Declaration, Annexure-V | 20 |
| Y. Format for Self-Certificate for Local Content , Annexure-VI | 21 |
| Z. Bank Guarantee Format for Performance Security, Annexure-VII | 22 |
| AA. Bid Securing Declaration (Annexure-VIII) | 23 |
| BB. Financial Bid (BOQ) | 24 |


Registrar
ARIES, Manora Peak
Nainital

A. Background :

Aryabhatta Research Institute of observational sciences (acronym for ARIES; <http://www.aries.res.in>) is an autonomous research institute under the Department of Science and Technology (DST), Government of India. ARIES is on a hilly terrain called Manora Peak, near the beautiful lake city of Nainital located in the Devbhumi of Uttarakhand State in the Central Gangetic Himalayan region. The institute is carrying out fundamental research in the various fields of Atmospheric Science, Astronomy & Astrophysics and Solar physics.

B. Details:

Name of the Purchaser:

The Director,

Aryabhatta Research Institute of Observational Sciences (ARIES),
Under Department of Science Technology (DST), Govt. of India
Manora Peak, Nainital -263 001, Uttarakhand

C. Time Schedule:

Tender documents may be downloaded from ARIES Website: <http://www.aries.res.in> (for reference only) and CPPP Site <http://eprocure.gov.in/eprocure/app> as per the schedule given in **CRITICAL DATE SHEET** as under: -

| | |
|-------------------------------------------------------|--------------------------------------------------------------------------|
| Date of publishing on CPP Portal | 17-03-2021 |
| Document Download Start Date & Time | 17-03-2021(14:00 hrs.) |
| Clarification Start Date & Time | 17-03-2021(15:00 hrs.) |
| Bid Submission Start Date & Time | 17-03-2021(18:00 hrs.) |
| Document Download End Date & Time | 08-04-2021 (10:00 hrs.) |
| Clarification End Date & Time | 08-04-2021 (10:00 hrs.) |
| Bid Submission End Date & Time | 08-04-2020 (10:00 hrs.) |
| Bid Opening Date & Time for opening of technical bids | 09-04-2021 (10:00 hrs.) |
| Venue, Date and Time for opening of Financial bid | Will be intimated through online CPPP to Technically Qualified Tenderer. |
| Earnest Money Deposit (EMD) | Bid Security Declaration as per Annexure- VIII |

D. Subject and Brief Scope of Work:

Supply, fabrication, inspection, testing and commissioning of Yard Fire hydrant pipeline with Hydrants per the list in **Annexure-II** at ARIES, Nainital, Uttarakhand

E. Product Utilization :

The product is being purchased for research purposes. The components are required to satisfy all specifications mentioned in this document.

F. Contact information & contact person for administrative queries:

Mr. Ravinder Kumar, Registrar
Aryabhata Research Institute of Observational Sciences,
Department of Science Technology, Govt. of India
Manora Peak, Nainital - 263 001, Uttarakhand, India
Tel: +91-(5942) – 270729 **Website:** <http://www.aries.res.in>

G. Contact information & contact person for technical queries about the items:

Mr. Abhijit Misra
Aryabhata Research Institute of Observational Sciences,
Department of Science Technology, Govt. of India
Manora Peak, Nainital - 263 001, Uttarakhand, India
Tel: +91-(5942) – 270801 **Website:** <http://www.aries.res.in>

H. Instructions for Online Bid Submission:

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at:
<https://eprocure.gov.in/eprocure/app>.

REGISTRATION:

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link “Online bidder Enrollment” on the CPP Portal which is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

I. SEARCHING FOR TENDER DOCUMENTS:-

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / email in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

J. PREPARATION OF BIDS:-

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

Note:

My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.

K. SUBMISSION OF BIDS:-

- 1) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as “offline” to pay the tender fee / EMD as applicable and enter details of the instrument.
- 4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- 5) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- 6) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 7) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 8) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

- 9) Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 10) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

L. ASSISTANCE TO BIDDERS :-


- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

M. Technical Bid : To qualify in the Technical bid the firm should have the minimum eligibility criteria as under and the firm in this regard must submit the following documents in support of their eligibility criteria – Check list of document (Technical Bid)

- a. Specify your firm/company is a manufacturer/ authorized dealer/ distributor/ Agency(Attach attested copy)
- b. Bidder security as specified in the NIT; (Technical Bid);
- c. Copy of PAN Card/GST Registration.
- d. Check list of document (Annexure-I)
- e. Copy of Income Tax Return Filed Acknowledgements for last Three years.
- f. Technical Specification/datasheet/brochure & Compliance statement Form (Annexure- II)
- g. Tender Acceptance letter (Technical Bid) Annexure-III
- h. Delivery schedule.
- i. Warranty details.
- j. The bidders should not have been suspended or blacklisted by any Govt. Organization (An undertaking to this effect must be submitted by the bidder that the firm has not been suspended or blacklisted by any Govt. Organization on company letter Head. (IV)
- k. Declaration as per **Annexure-V**
- l. Self-Certificate for Local Content Annexure-VI

Note:

- a) No Price information shall be mentioned in Technical Bid otherwise the entire bid shall be rejected


Registrar
ARIES, Manora Peak
Nainital



N. General instruction for price bid :

- 1) The Prices quoted should be inclusive of all taxes or duties etc. at destination site (ARIES, Nainital). ARIES, Nainital is registered with DSIR, Govt. of India and is exempted from Custom / GST in case of procurement of scientific instrument Exemption Certificate to this effect will be issued by ARIES, Manora Peak, Nainital, If required. The rates shall be of firm and final. Nothing extra shall be paid on any account.
- 2) **Custom Duty/GST:** ARIES will provide necessary certificate as ARIES is registered with DSIR for the purpose of availing custom duty/GST exemption in terms of Government Notification No. 51/96-Customs dated 23rd July, 1996, Notification No. 28/2003- Customs dt.01.03.2003, Notification No. 43/2017-Customs dated. 30.06.2017 & Notification No. 47/2017-Integrated Tax (Rate) Dt.14-11-2017, Notification No.10/2018-Integrated Tax (Rate) dt. 25.01.2018, Notification No. 45/2017-Central tax (Rate) DT 14.11.2017 and Notification No. 45/2017- Union Territory Tax (Rate) Dt. 14.11.2017 & Notification No. 9/2018-Central Tax (Rate) dated. 25.01.2018, Notification No. 9/2018- Union Territory tax (Rate) dated. 25.01.2018, as amended from time to time for research purposes only, to avail the exemption, ARIES shall provide the above certificate along with the supply order. Subject to above, indicate applicable duty.
- 3) **L1 will be decided on the basis of price of item.**
- 4) **Taxes/Other Charges:** GST charges should clearly be mentioned in price bid.

O. Award of Contract:

Contract will be awarded to successful bidder and a copy of the award of the contract will be uploaded in CPPP Portal after finalizing the tender.

P. Details of Bid Security/Earnest Money Deposit

- a. **Exemption for Bid Security:** Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprise (MSMEs) or are registered with the Central Purchase Organization or Concerned Ministry or Department or Startups as recognized by Department of Industrial Policy and Promotion are exempted from BID SECURITY. Such bidder needs to submit relevant certificate issued by competent authority along with technical bid of tender.
- b. The Bidders will be defined his exemption certificate which is relevant to our Tender category for EMD exemption, If the bidder will not provide the relevant category of certificate then exemption will not be applicable.

C. Bid Security Declaration Annexure-VIII

Q. Other terms and conditions of the tender:

- a. **Delivery:** Within 45 Days from the date of received of the Purchase Order.
- b. **Insurance:** Transit insurance covering all risk for all the items is to be arranged by the supplier.
- c. **Validity:** The bid should be valid for acceptance up to a period of 120 Days. The Bidders should be ready to extend the validity, if required without any additional financial implications.
- d. **Warranty/Guarantee:** -The offer should have warranty or guarantee period for the machinery/equipment for One year.
- e. **Transportation of Goods:** The Supplier will arrange transportation by his own arrangement.

Registrar
ARIES, Manora Peak
Nainital


f. Terms of Payment:-

1. No advance payment against pro forma invoice will be made.
 2. 97% after receipt, testing and approval of materials normally within 30 days and 3% after submitting performance security in the form of Bank Guarantee of 3% of the total value of item or else 3% amount will be released beyond 2 months after completion of warranty period. Performance bank Guarantee will be released beyond 2 months after the completion of warranty period.
- g.** Liquidated damage as decided by ARIES will be charged, if the item(s) is/are not delivered within the stipulated time frame.
- h.** ARIES reserves the right to levy a penalty for delay in delivery of material. This penalty shall be @ of 0.5 % of Purchase Order value per week of delay in deliveries/ execution of the order successfully, subject to maximum of 10% of the order value. Part of the week shall be considered as full week. ARIES will cancel the order in case the delay is more than 5 weeks with forfeiture of EMD/Security Deposit.
- i.** Any disputes, legal action/matters, arising out of/ resulting from/related or incident to the tender /quotation/Purchase order/invoices/delivery/payments shall be subject to exclusive jurisdiction of Nainital -263001. Laws of India shall govern this tender as well as any or all transactions /documents/deeds/actions/PO arising out of/ resulting from this tender.
- j.** The Bank/RTGS details must be submitted along with the quotation/Tenders on the letter head.
- k. Language of the Bid Proposal:** The Language of the bid proposal as prepared by the Bidders should be in English and all further correspondence with the office and all the documents pertaining to the bid proposal shall be in English& Hindi.
- l. REJECTION OF STORES:**
Rejected stores will remain at the ARIES store at the Contractor's risk and responsibility, if instructions for their taking away are not received from the Contractor within a period of 14 days from the date of receipt of the advice or rejection, the Purchaser has discretion to dispose the items.
- m.** Prices should be quoted on F.O.R. ARIES, Nainital basis only.
- n.** The number of quantity mentioned in **Annexure-II** may be increased or decreased as per requirement/raining meter.
- o. Institute's Rights:** Director, ARIES reserves the right to accept or reject any or all the bids without assigning any reason thereof.
- p. Force Majeure:** If the performance of the obligation of either party is rendered commercially impossible by any of the events hereinafter mentioned the same party shall notice of 15 days from the date of such an event in writing to the others party.
- a) Government Regulation. b) Legislation. c) Natural disasters. d) Strike e) Lock out f) Act of God.
- q. Important Note:** Amendment, Corrigendum if any to this tender document, will be hosted only on ARIES WEBSITE and CPP Portal and no separate press notification will be issued. Bidders are advised to visit our website and CPP Portal regularly to know such details.



Manora Peak, Nainital-263001, Uttarakhand, India

Tel +91 05942-235136, 270700 | Fax +91 05942-233439 | directoraries@aries.res.in | www.aries.res.in


Registrar
ARIES, Manora Peak
Nainital

R. PREFERENCE TO “MSME”:

ARIES complies with Public Procurement Policy **Micro and Small Enterprises (MSEs) Order, 2012** as notified under **section 11** of MSME Act, 2006. Purchase preference shall be given to MSEs in all procurements undertaken by ARIES in the manner specified as below:

- In case of splitable or dividable, etc., MSMEs quoting price within price band L-1 + 15%, when L1 is from someone other than MSMEs, shall be allowed to supply at least 20% of tendered value at L-1 subject to lowering of price by MSMEs to L-1.
- In case of non-splitable or non-dividable etc., MSEs quoting price within price band L-1 + 15% may be awarded for full/complete supply of total tendered value to MSME, considering spirit of policy for enhancing the Govt. Procurement from MSME.

S. Preference to “Make In India”

ARIES complies with Public Procurement Policy (Make in India) vide order No.P-45021/2/2017-PP (BE-II) dated 16 Sept 2020 and Vide order No. P-45020/102/2019-BE-II-Part (1) (E-50310) Dated:04-03-2021, issued by Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Govt. of India. Purchase preference shall be given to local suppliers in all procurements undertaken by ARIES in the manner specified in the above-mentioned O.M. Further, the guidelines mentioned below shall be followed:


Verification of Local Content-

- a. This ‘Class -I local supplier’/ ‘Class-II local supplier’ at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for ‘Class-I local supplier’/ ‘Class-II local supplier’ as the case may be. They shall also give details of the location(s) at which the local value addition is made.

Definitions:

‘Local content’ means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

- ‘Class –I local supplier’ means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50%, as defined under this order.
- ‘Class–II local supplier’ means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 20% but less than 50%.
- ‘Non -local supplier’ means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than 20%.


Registrar
ARIES, Manora Peak
Nainital.

Annexure-I

T. Check list of document (Technical Bid)

| Sr.No | Check list of documents/ undertakings | compliance Yes/No. | Reference, Page No |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|
| 1 | Name of the firm/company/proprietary concern registered | | |
| 2 | Address of registered office | | |
| 3 | Address of the office : | | |
| 4 | Telephone Nos./Fax/E-mail | | |
| 5 | Specify your firm/company is a manufacturer/ authorized dealer/ distributor/ Agency(Attach attested copy) | | |
| 6 | MSME/NISC registered firms are exempted from paying the EMD(Attach attested copy) | | |
| 7 | Bid Security Declaration as per Annexure- VIII | | |
| 8 | PAN Card No. (Attach attested copy) | | |
| 9 | GST Reg. No. (Attach attested copy) | | |
| 10 | Copy of Income Tax Return Filed Acknowledgements for last Three years. | | |
| 11 | Original Technical Catalogue of the quoted model (enclose) | | |
| 12 | Accepted for all terms & conditions as per tender document | | |
| 13 | Technical specification and compliance statement as per the tender document in Annexure-II. | | |
| 14 | Tender Acceptance Letter as per the tender document in Annexure-III. | | |
| 15 | The bidders should not have been suspended or blacklisted by any Govt. Organization (An undertaking to this effect must be submitted by the bidder that the firm has not been suspended or blacklisted by any Govt. Organization on company letter Head. (IV) | | |
| 16 | Declaration Certificate as per the tender document in Annexure-V. | | |
| 17 | Procurement (Preference of Make in India) Verification of Local Content self- certification as the case may be. Refer clause 'S', Annexure-VI | | |

(Signature of Authorized Person)

Name:

Designation:

Name of Firm/Company/Agency:

Signature
Registrar
ARIES, Manora Peak
Nainital

Manora Peak, Nainital-263001, Uttarakhand, India

Tel +91 05942-235136, 270700 | Fax +91 05942-233439 | directoraries@aries.res.in | www.aries.res.in

Annexure-II

U. Technical Specification and compliance statement

DETAILED SCOPE OF WORK

The scope of work of the Bidder covers engineering, supply, fabrication, inspection, shop testing, packing, supply, transportation to site, receipt at site, storage at site, site handling, installation/erection as per approved drawings, painting, testing, commissioning, performance guarantee and handing over to client at site of Yard Fire hydrant pipeline with Hydrants as follows

- Network Yard pipe line
- Hydrant System
- Interconnection with existing fire pipe lines
- Isolation valves

Fire water supply system shall be completed in all respects and any equipment or material not specifically mentioned below, but required for safe, efficient & smooth operation and guaranteed performance of the plant shall be included under the scope of work of the Contractor.

1. TECHNICAL SPECIFICATION FOR YARD PIPING SYSTEM

Pipe specification

Mild steel/Carbon steel pipelines shall be used in general for fire water hydrant yard piping system

Black pipe (dn15 to dn 50)

| S.N. | DESCRIPTION | SPECIFICATION |
|------|-------------------|---------------|
| 1- | End Connection | Bevels End |
| 2- | Class | Sch 80 |
| 3- | Standard | API 5L |
| 4- | Manufactured Type | Seamless |

Pipeline thickness to be followed

| S.N. | DESCRIPTION | Thickness |
|------|--------------------------------------|-----------------------|
| 1- | DN 15 to DN 50 | Sch 80 |
| 2- | DN 65 to DN 150 | IS:1239 (Heavy Grade) |
| 3- | DN 200 | 6.3mm |
| 4- | DN 250 | 6.3mm |
| 5- | DN 300 | 7.1 mm |
| 6- | DN 350 | 8.0 mm |
| 7- | DN 400 | 8.8mm |
| 8- | Pipe >DN450 Shall be spirally welded | |
| 9- | DN 600 | 8.8mm |
| 10- | DN 500 | 8.8mm |

Dimensional tolerance and end finishes

Tolerance on outside diameter of the pipe and specified thickness shall conform to the limits laid down in respective standards. Finished pipe shall not deviate from straightness by more than 0.2% of the total length.

Pipes to be butt welded shall be supplied with ends bevelled to an angle of 30 degrees (+ 5 degree – 0 degree) measured from a line drawn perpendicular to the axis of the pipe. The root face shall be 1.6 ± 0.8 mm.

2. TECHNICAL SPECIFICATIONS FOR PIPE FABRICATION AND ERECTION WORK

The term pipes work referred herein generally covers erection of pipes, fittings (such as bends, tees, reducers, plugs, nipples, sockets, unions, flanges, crosses etc.), valves of various types and functions (such as butterfly, safety relief valves, pressure reducing valves, etc.) hoses, hose couplings hose clamps, hose nozzles, fire hydrant assemblies, pipe supports, corrosion protection etc.

The pipes work shall be manufactured, assembled and tested as per the latest standards, codes and recommendations of the Bureau of Indian Standards, ANSI, ASTM, AWWA, or other equivalent international standards. Pipe work shall be completed in all respects including all accessories essential for proper installation, operation and maintenance, even though such items are not specifically mentioned in the specification.

Piping system shall be with high degree of reliability so that the systems perform the duty of fluid handling without any failure under all conditions of plant operation. Piping layout must follow good engineering practice. Proper attention shall be given considering thermal expansion to obtain full functional requirement of the piping system with a layout which provides sufficient clearance for other equipment and operating personnel, easy access for operation and maintenance, convenient supporting points and neat appearance.

Provision shall be made for support of piping which may be disconnected during maintenance work. All large pipes and all long pipes shall have at least two supports each arranged in such a way that any length of piping or valve may be removed without any additional supports being required.
RCC pedestal pipe supports shall be capable of supporting the pipelines under all conditions of operation.

Civil pedestal span length for pipes running

| S.N. | Pipe Size | Span |
|------|---------------|----------|
| 1- | DN50 to DN250 | 5 m |
| 2- | Pipe>DN250 | 6m (Max) |

Segment isolation valve to be considered for close loop of each building. Pipe Support shall be considered minimum 300mm above from the ground level and 500 to 700 mm to be considered for ground level variation. The site temp. varies between +30deg C to -4deg C.

3. METHOD OF QUALITY CONTROL IN WELDED JOINTS

Following steps shall be taken by the Contractor, besides controlling quality in general, to make effective control in carrying out welded joints.

- Welding procedures shall be prepared in line with IS: 7307 (Part – I) –1974, reaffirmed in 1991 and tests shall be carried out to quality procedures. Number of procedures will depend on variables like positions of welding, thickness range etc. Once a welding procedure is qualified, strict adherence to it shall be made during actual welding.
- Welding consumables shall be of approved type. Such consumables are, however, subject to qualifying initial check tests as per IS: 814-1991.
- The Contractor shall strictly follow approved welding procedures during actual welding. Besides, the following stages of inspection shall also be carried out:
- Weld edge preparation before welding, proper fit up, position of welding, cleaning of slag between the passes, proper weld profile etc., shall be checked visually amongst others.
- Dye penetrant testing of welds shall be done for root and final welding for 100% of weld joints.

f)- Non-destructive tests of weld of welded joints shall be carried out as per approved procedures/ drawings.

Preparation of Joints

The Contractor shall prepare the edge correctly to the shape, size and dimensions of the vee-grooves as per ANSI B-16.25 .

The welding surfaces shall be smooth, uniform and free from fins, tears, notches or any other defect which may adversely affect welding and shall be free from loose scale, slag, rust, grease, paint, moisture or any other foreign material. The clean surface shall be extended to about 10mm beyond the welding faces to avoid contamination of the weld metal with foreign material and to avoid unsound weld deposit.

Assembly, Alignment & Welding

The general direction of welding shall be towards the free end of the joint, but in a long joint as in shell fabrication, back-step technique shall be used to reduce distortion.

To minimize internal locked up stresses due to welding, the vertical joints for the shell shall be welded and completed to a circular course and then the horizontal circumferential seam welded. However, before the welding of horizontal seam started, the complete circular course shall be aligned and adjusted for their correct axes.

Alternatively, the Contractor shall complete each course in all respect on ground and then the pre-assembled course shall be listed and placed in position. In such a sequence and planning, the same principle of balancing of weld about the neutral axis shall be followed and the method of fabrication of each course shall be similar to fabrication of penstock pipes of transmission/ industrial pipelines of bigger diameter.

Pipe and attachment shall be aligned properly by accurate and permanent methods prior to welding. If tack welds are used, the tack shall be either fused into the first layer or weld or else chipped out.

4. TOLERANCE

Deviations for assembly of welded joints may be permitted to the following extent:

| SN | | Tolerance | |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------|
| | Source Butt Joints | | |
| 1- | Gap between the end of plates | +2.0mm -1.0mm | +/-1.0mm |
| | Stepping of one plate over the other | 1.0mm | 2.0mm |
| 2- | Single vee Groove Joints | | |
| | Bevel Angle | +/-5 degree | +/-5degree |
| | Stepping of one plate over the other | 2.0mm | 2.0mm |
| 3- | Lap Joint | | |
| | Overlap | 5.0mm | 5.0mm |
| | Gap between the surface | 2.0mm | 1.0mm |
| 4- | Tee Filler Joint | | |
| | Gap between the edges of the web and the surface of the flange | 2.0mm | 2.0mm |
| 5- | Hydrostatic Testing: The whole piping system shall be hydro test for 150% of maximum expected operating pressure as per relevant standards. After hydro testing of pipeline, all joints shall be coated /painted only after rectification of defects, if any. | | |

5. TESTS ON WELDED JOINTS

(a) Visual examination

The Contractor shall carryout all tests as specified hereinafter to satisfy the purchaser about the acceptability of the welded joints, as directed by the Purchaser.

The Contractor shall examine the following during the Visual examination:

- 1) Check the correctness of shape and size of the welded joints
- 2) Incomplete penetration of weld metal
- 3) Influx
- 4) Burns
- 5) Under cuts
- 6) Un-welded crates
- 7) Cracks in welded spots and heat affected zones
- 8) Porosity in welds and spot welds
- 9) Compression in welded joints as a result of electrode impact while carrying out contact welding.
- 10) Displacement of welded element.

(b) Liquid Dye-penetrant Test

Liquid dye-penetrant tests shall be carried out at root level and filler level in accordance with IS: 3658-1981, reaffirmed in 1991 for surface/ sub-surface defects.

(c) Hydrostatic Testing

The whole piping system shall be hydro test for 150% of maximum expected operating pressure as per relevant standards. After hydro testing of pipeline, all joints shall be coated / painted only after rectification of defects, if any.

6. PIPE FITTINGS, COMPANION FLANGES, BOLTS, NUTS & GASKETS

The pipe fittings shall be generally comply with IS: 1239. SORF Flanges shall be provided for all the valves and they shall be of mild steel and conform to the relevant table of IS: 6392. Bolts and nuts conforming to IS:1363 shall be provided for the companion flanges. Rubber gaskets conforming to IS:638 shall be provided for the companion flanges. CAF gaskets conforming to IS: 2712-1979 (R.A.1994) shall be provided.

7. PIPE PROTECTION

All pipes above ground and in exposed locations shall be painted as follows

8. PAINTING OF PIPING

All yard piping and equipment shall be painted with approved paints. Supply of paints is also in the scope of the contractor only. Painting operation shall generally be in line with IS 1477 and color of finish paint shall be fire red shade no. 536 of IS 5 and the thickness required is 150 microns DFT of total with epoxy mastic prime 120 microns and epoxy PU coating of 30microns.

9. SURFACE PREPARATION

Under ground pipes/ road crossing

The pipes (buried) should be initially brushed to remove all foreign matter and apply the primer over the pipe. Primer is allowed to dry until the solvent evaporates and surface becomes tacky. The tape 6 mm thick and 150/250mm wide shall then be wound in a spiral fashion and bonded completely to pipe by thermo fusion process. The overlap is to be maintained at 15mm.

Civil work pertaining to underground buried pipelines such as excavation, laying, back filling, compacting, laying of encasing pipes below roads shall also be in the scope of the bidder as a part of pipe laying. In case of pipes crossing road, RCC Hume pipes (NP3 class) with encasement to be provided below the roads and the same is also included in the scope of the contractor.

10. PIPE SUPPORTS

Concrete blocks are to be made for supporting the ring main to be laid along the wall. Supports for above ground pipes of 65mm dia and above shall be fabricated by structural steel of suitable sections with suitable fasteners. The supports shall be painted with coats as mentioned in the data sheets. Suitable type hangers shall support pipes below 50 mm dia with clamps, anchor fasteners and suspended rods etc.

11. VALVES

Butterfly valves

Butterfly valves shall be as per BS 5155 & provided for pipes 50mm dia and above on downstream (delivery side) of the pumps. The valves shall be CI construction, seat shall be black nitrile rubber with in situ molding. The valves shall be PN 1.2 rating.

Hose reel

Hose reel shall be swinging type for 180 deg with mounting base plate. Hose reel shall consist with 19mm dia high-pressure rubber braided hose of 30M length with gunmetal nozzles. Hose reel water shall be tapped off from the wet riser with Ball valve. The hose reel shall be installed in fire hose duct inside/outside the building.

Hydrant valve

The Hydrant valve shall be gunmetal single headed type conforming to IS: 5290 complete with hand wheel, quick coupling, spring and blank cap. 2 Nos. of RRL type hose pipe of 63mm dia and 15M length as per IS: 636 with 63mm dia instantaneous type SS heavy duty couplings & SS Branch pipe and nozzle to be provided. Fire hoses and branch pipes shall be mounted inside the fire shaft with suitable supports.

12. FIRE HOSE

Fire hoses shall be Reinforced Rubber Lined (RRL) type as per IS: 636 & 63mm dia and 15M long. Hoses shall be bounded by G.I. wire to heavy-duty instantaneous gunmetal couplings as per IS 903.

13. BRANCH PIPE & NOZZLE

Branch pipe shall be gunmetal, 63mm dia with Nozzle of 19mm dia made as per IS: 903 and suitable fitted with hoses as specified elsewhere in this specifications.

14. HOSE CABINET

Hose cabinet shall be fabricated by CRC sheet 18swg and size shall be 750mm x 600mm x 250mm. Hose cabinet shall have glass fronted door fitted with 4mm thick clear glass & powder coated finish of red outside & inside both. Cabinet shall be suitable for stand mounting / wall mounted as specified in Schedule and shall have built in breakable glass type feature to keep key.

15. FOUR WAY FIRE BRIGADE INLET CONNECTION (FBIC)

FBIC shall be as per IS 5131 & gunmetal four away connecting head with 4 x 63mm dia instantaneous type inlets with built in check valve and 150mm dia outlet connection to the fire main grid with 150mm dia Butterfly valve and non – return valve. The fire brigade inlet shall be feed water in to the system as well as to the fire water tank.

16. DRAIN VALVES

Gun metal Gate / Ball valve of 15 / 25 / 40 / 50mm dia as per IS: 778 with fittings as required for instruments / draining any water in the system / Risers in low points.

1. GM Triple Purpose Nozzle 63 mm dia
2. GM Fog Nozzle 63mm dia
3. GM Revolving Branch Pipe 63mm dia
4. Draw out Connection 100mm dia in C.I body with G.M working part.

17. Remarks

**** The bidder should visit the actual site before applying for this tender.**

The following table needs to be filled to indicate if above points and notes are agreed or not.

| Sr.No | Yes/No | Comments |
|-------|--------|----------|
| 1. | | |
| 2. | | |
| 3. | | |
| 4. | | |
| 5. | | |
| 6. | | |
| 7. | | |
| 8. | | |
| 9. | | |
| 10. | | |
| 11. | | |
| 12. | | |
| 13. | | |
| 14. | | |
| 15. | | |
| 16. | | |
| 17. | | |
| 18. | | |


(Signature of Authorized Person)

Name:

Designation:

Name of Firm/Company/Agency:

Contact Details


Registrar
ARIES, Manora Peak
Nainital



Annexure-III

V. TENDER ACCEPTANCE LETTER

(To be given on Company Letter Head)

Date:

To,

**The Director,
ARIES, Manora Peak,
Nainital -263001**

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: _____

Name of Tender / Work: -

Dear Sir,

1. I/ We have submitted online tender document(s) for the above mentioned
'Tender/Work' from the web site(s) namely:

as per your advertisement, given in the above mentioned website(s).

2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. _____ to _____ (including all documents like annexure(s), schedule(s), etc. ..), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your department/ organizations too have also been taken into consideration, while submitting this acceptance letter.

4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.

5. I / We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking.

6. I / We certify that all information furnished by the our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

Annexure-IV

W. UNDERTAKING REGARDING BLACKLISTING

(To be given on Company Letter Head)

Date:

To,

The Director,
ARIES, Manora Peak,
Nainital -263001

Sub: Undertaking Regarding Blacklisting.


Tender Reference No: _____

Name of Tender / Work: -

We hereby confirm and declare that we, M/s _____, is not blacklisted/
De-registered/ debarred by any Government department/Public Sector Undertaking/ Private Sector/
or any other agency for which we have Executed/ Undertaken the works/ Services.

For -----Authorised Signatory

Date:


Registrar
ARIES, Manora Peak
Nainital.



Annexure-V

X. DECLARATION

(To be given on Company Letter Head)

From:-

M/s.....

.....

To

The Director,
ARIES, Nainital-263 001.
Uttarakhand.

1. I, Shri _____ of Proprietor/Director authorized signatory of the agency/Firm, mentioned above, is competent to sign this declaration and execute this tender document;
2. I have carefully read and understood all the terms and conditions of the tender and undertake to abide by them;
3. The information / documents furnished along with the above application are true and authentic to the best of my knowledge and belief. I / we, am / are well aware of the fact that furnishing of any false information / fabricated document would lead to rejection of my tender at any stage besides liabilities towards prosecution under appropriate law.
4. I/We further undertake that none of the Proprietor/Partners/Directors of the Agency/agency was or is Proprietor or Partner or Director of any Agency with whom the Government have banned /suspended business dealings. I/We further undertake to report to the Director, ARIES , Nainital immediately after we are informed but in any case not later 15 days, if any Agency in which Proprietor/Partners/Directors are Proprietor or Partner or Director of such an Agency, which is banned/suspended in future during the currency of the Contract with you.

Yours faithfully,

(Signature of the Bidder)

Date:

Place:

Seal of the Agency

Name:

Designation

Address:


Registrar
ARIES, Manora Peak
Nainital

Annexure- VI

Y. Format for Self-Certificate for Local Content
(TO BE SUBMITTED AS A PART OF TECHNICAL BID)

To

The Director
Aryabhata Research Institute of observational sciences (ARIES),
Manora Peak, Tallital Sub PO,
Nainital 263001, Uttarakhand, INDIA

Sub: Self-Certificate for Local Content

Tender Ref. No. _____

Tender ID: _____

* I / We(Name of the Bidder) hereby confirm in respect of quoted item(s) that Local Content is equal to or more than 50% and come under 'Class-I Local Supplier' Category. As being 'Class-I Local Supplier', we are eligible for Purchase Preference under 'Make in India' Policy Vide Govt order No.P-45021/2/2017-PP (BE-II) dated 16 Sept 2020 and Vide order No. P-45020/102/2019-BE-II-Part (1) (E-50310) Dated:04-03-2021.

OR

** I / We(Name of the Bidder) hereby confirm in respect of quoted item(s) that Local Content is equal to or more than 20% but less than 50% and come under 'Class -II Local Supplier' Category.

OR

*** I / We(Name of the Bidder) hereby confirm in respect of quoted item(s) that Local Content is less than 20% and come under 'Non-local supplier' Category.

The details of the location(s) at which the local value addition made is/are as under:

- 1.....
- 2.....
- 3.....

*Applicable for 'Class-I Local Supplier' Category

** Applicable for 'Class-II Local Supplier' Category

*** Applicable for 'Non-local supplier' Category

Yours faithfully,


(Signature & Seal of the Authorized Signatory of Bidder)

Name and Designation of Authorized Signatory:

Name of Firm/Company:

Place:

Date:


Registrar
ARIES, Manora Peak
Nainital



Annexure- VII

Z. BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY

To,

The Director
Aryabhatta Research Institute of observational sciences (ARIES),
Manora Peak, Tallital Sub PO,
Nainital 263001, Uttarakhand, INDIA

WHEREAS
(name and address of the supplier) (hereinafter called "the supplier") has
undertaken, in pursuance of contract no..... dated
.....to supply (description of goods and services) (herein after called "the
contract").

AND WHEREAS it has been stipulated by you in the said contract that the
supplier shall furnish you with a bank guarantee by a scheduled commercial
recognized by you for the sum specified therein as security for compliance with
its obligations in accordance with the contract;

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW 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 supplier to be in default under the contract and without
cavil or argument, any sum or sums within the limits of (amount of guarantee) as
aforesaid, without your needing to prove or to show grounds or reasons for your
demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the
supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms
of the contract to be performed there under or of any of the contract documents
which may be made between you and the supplier shall in any way release us
from any liability under this guarantee and we hereby waive notice of any such
change, addition or modification.

This guarantee shall be valid until the day of, 20.....

(Signature of the authorized officer of the Bank)

.....
Name and designation of the officer

.....
Seal, name & address of the Bank and address of the Branch


Registrar

ARIES, Manora Peak

Manora Peak, Nainital-263001, Uttarakhand, India

Tel +91 05942-235136, 270700 | Fax +91 05942-233439 | directoraries@aries.res.in | www.aries.res.in

Annexure-VIII

AA. Bid Securing Declaration Form

(To be given on Company Letter Head)

Tender Ref No. _____ Date: _____

To,

The Director,
ARIES, Manora Peak,
Nainital -263001

I/We. The undersigned, declare that:

I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because of

- withdrawal/modification/amendment, impairment or derogation from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or
- having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i) fail or reuse to execute the contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the receipt of your notification of the name of the successful Bidder. In case, the successful vendor withdraw or modify their bids during period of validity etc, they will be suspended for the one year.

Signed: (put signature of person whose name and capacity are shown)
in the capacity of (insert legal capacity of person signing the Bid Securing Declaration)

Name: (insert complete name of person signing the Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of (insert complete name of Bidder)

Dated on _____ day of _____ (insert date of signing)

Corporate Seal (where appropriate)

(Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)




Registrar

ARIES, Manora Peak
Nainital.

Item Rate BoQ

Tender Inviting Authority: Aryabhata Research Institute of Observational (ARIES), Manora Peak, Nainital

Name of Work: Supply, fabrication, inspection, testing and commissioning of Yard Fire hydrant pipeline with Hydrants and other items at ARIES, Nainital, Uttarakhand

Contract No: 05942270801, 05942270725, 05942270723

Name of the
Bidder/ Bidding
Firm /
Company :

PRICE SCHEDULE

[This BOQ template must not be modified/rephrased by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this reason. Bidders are allowed to enter the Bidder Name and Values only.]

| NUMBER # | TEXT # | TEXT # | NUMBER # | TEXT # | NUMBER # | NUMBER # | NUMBER # | NUMBER # | NUMBER # | NUMBER # | TEXT # |
|----------------------|-------------------------------------------------------------------------------|------------------|----------|--------|-------------------------------------------------------------|----------|-------------------------------|--------------------------------------|-------------------------|-----------------------|--------|
| Sl. No. | Item Description | Item Code / Make | Quantity | Units | BASIC RATE In Figures To be entered by the Bidder in Rs. P. | GST | Any Other Taxes/Duties/Levies | TOTAL AMOUNT Without Taxes in Rs. P. | TOTAL AMOUNT With Taxes | TOTAL AMOUNT In Words | TEXT # |
| 1 | 2 | 3 | 4 | 5 | 13 | 15 | 17 | 53 | 54 | 55 | |
| 1 | Fire Hydrant pipe line & including all required items as per tender document. | Item 1 | 170 | Meter | | | | 0.00 | 0.00 | INR Zero Only | |
| Total in Figures | | | | | | | | 0.00 | 0.00 | INR Zero Only | |
| Quoted Rate in Words | | | | | | | | | | | |
| INR Zero Only | | | | | | | | | | | |

INR Zero Only

Qr

Registrar
ARIES, Manora Peak
Nainital.

