



भाकृअनुप-राष्ट्रीय उच्च सुरक्षा पशुरोग संस्थान  
ICAR-National Institute of High Security Animal Diseases

(एवियन इन्फ्लूएंजा ओ.आई.ई. संदर्भ प्रयोगशाला)

(OIE Reference Laboratory for Avian Influenza)

आनंद नगर, भोपाल - ४६२०२२ (म.प्र.), भारत

Anand Nagar, Bhopal - 462022 (M.P.), India



EPABX Tel. No. 0755-2757542, 2750647, FAX: 0755-2758842, Website: [www.nihsad.nic.in](http://www.nihsad.nic.in)

**F. No. 9-135/17-18/NIHSAD (P&S)**

**Dated: - 16.12.2017**

**E-TENDER NOTICE (SECOND CALL)**

Online Bids are invited from reputed & interested firms for the work of Replacement of Chilled Water Pipeline in AC Plant. A demand Draft/FDR of Rs. 45, 000/- (Rupees Forty Five Thousand Only) as earnest money deposit (EMD) is to be made in favour of ICAR Unit, NIHSAD, Bhopal and may be addressed to Director, ICAR-NIHSAD, Bhopal.

Details of Tender Deposits: -	
Cost of Tender Form	Rs. 1000/- (Rupees One Thousand Only) (in shape of DD Only in favour of ICAR Unit, NIHSAD, Bhopal)
Earnest Money Deposit	Rs. 45000/- (Rupees Forty Five Thousand Only) (DD/FDR)
Security Deposit	10% of the total value of the contract (DD/FDR)

**Tender Schedule (Critical date sheet)**

Tender id	
Tender No.	No. 9-135/17-18/NIHSAD (P&S)
Name of Organization	ICAR-National Institute of High Security Animal Diseases, Bhopal - 462022
Date and Time for issue/Publishing	16.12.2017 at 6:00 PM
Document Download/Sale Start Date and Time	18.12.2017 at 11:00 AM
Document Download/Sale End Date and Time	11.01.2018 at 5:00 PM
Pre Bid Meeting Date & Time	27.12.2017 at 11:30 AM
Bid Submission Start Date and Time	18.12.2017 at 12:00 Noon
Bid Submission End Date and Time	11.01.2018 at 5:00 PM
Technical Bid Opening Date and Time	15.01.2018 at 11:30 AM
Price Bid Opening Start Date and Time	Will be intimated after scrutiny of technical bid
Address for Communication	Director, ICAR-NIHSAD, Anand Nagar, Bhopal – 462022 (M.P.) Website: - <a href="http://www.nihsad.nic.in">www.nihsad.nic.in</a>

On-line bids are invited under two-bid system (containing technical bid & financial bid) through e-procurement system of CPPP from registered/well-established /reputed firms.

**The instructions for uploading the tender/quotation may be obtained from the website of CPP portal i.e. <http://eprocure.gov.in>.**

In case, holiday is declared by the Government on the day of opening bids, the bids will be opened on the next working day at the same time. The Director, NIHSAD reserves the right to accept or reject any or all the tenders without assigning any reasons.

**Please note that only online bids submitted through CPP Portal will be accepted. Technical Bid and Financial Bid (BOQ) should be uploaded separately.**

**Adm. Officer  
ICAR-NIHSAD, Bhopal**



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ICAR-National Institute of High Security Animal Diseases

(एवियन इन्फ्लूएंजा ओ.आई.ई. संदर्भ प्रयोगशाला)  
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आनंद नगर, भोपाल - ४६२०२२ (म.प्र.), भारत  
Anand Nagar, Bhopal - 462022 (M.P.), India



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**F. No. 9-135/17-18/NIHSAD (P&S)**

**Dated: - 16.11.2017**

INVITATION TO ONLINE TENDER AND INSTRUCTIONS CONTAINING TERMS AND CONDITIONS FOR THE WORK OF REPLACEMENT OF CHILLED WATER PIPELINE IN AC PLANT.

From: - Director,  
ICAR-National Institute of High Security Animal Diseases,  
Anand Nagar,  
Bhopal – 462022 (M.P.)

To

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

Dear Sir(s),

Online Tender is hereby invited on behalf of the Director, ICAR-NIHSAD, Bhopal for the WORK OF REPLACEMENT OF CHILLED WATER PIPELINE IN AC PLANT.

1. The terms and conditions of the contract are those contained in the general conditions of contract applicable to the contracts placed by the ICAR-NIHSAD as detailed in the tender forms and its schedules. Please submit your rates in the tenders form through E-procurement if you are in a position to do that work/job for the work of Replacement of Chilled Water Pipeline in AC Plant with the requirements stated in the Part II (Scope of Work).
2. Earnest money of Rs. 45, 000/- and Rs. 1,000/- as cost of Tender form must be deposited in the form of demand draft/FDR to ICAR Unit, NIHSAD, Bhopal **in person to Director, ICAR-NIHSAD, Bhopal on or before the last date/time of submission.** The particulars of the earnest money deposited must also be submitted (DD/FDR) failing which the bids will not be accepted. Conditional bids shall not be considered. No overwriting or cutting is permitted in the tender documents. Such bids will be rejected outright.

3. The tenderer is being permitted to give tenders in consideration of the stipulations on his part that after submitting his tenders, he will not resile from his offer or modify the terms and conditions thereof. If the tenderer fails to observe and comply with the foregoing stipulations, the aforesaid amount of EMD will be forfeited by the NIHSAD. In the event of the offer made by the tenderer not being accepted, the amount of earnest money deposited by the tenderer will be refunded to him after he has applied for the same, in the manner prescribed by the ICAR-NIHSAD, Bhopal. An undertaking as per **Annexure - I**, is also required to be submitted by the tendering firm.
4. The schedules of the tender form should be uploaded/downloaded through E-Procurement (<http://eprocure.gov.in/CPPP>). In the event of the space provided on the schedule form being insufficient for the required purposes, additional pages may be added. Each additional page must be numbered consecutively and be signed in full by the tenderer. In such cases, reference to the additional pages must be made in the tender form. If any modification of the schedule is considered necessary it should be communicated by means of a separate letter alongwith the tenders.
5. The tenders are liable to be ignored if complete information as required is not given therein or if the particulars asked for in the schedules to the tenders are not fully filled in. Individual signing the tenders or other documents connected with the contract may specify whether he signs it in the capacity of (i) a sole proprietor of the firm or constituted attorney of such sole proprietor, or (ii) a partner of the firm if it be partnership in which case he must have authority to refer to arbitration dispute concerning the partnership whether by virtue of the partnership agreement or power of attorney or (iii) constituted attorney of the firm if it is a company.
6. If a tenderer does not accept the offer, after issue of letter of award by ICAR-NIHSAD within 15 (Fifteen) days, the offer made shall be deemed to be withdrawn without any notice & earnest money forfeited.
7. In case of partnership firms, where no authority has been given to any partner to execute the contract/agreement concerning the business of the partnership, the tenders and all other related documents must be signed by every partner of the firm. A person signing the tender form or any other documents forming part of the contract on behalf of another shall be deemed to warrant that he has authority to bind such other and if, on enquiry it appears that the persons so signing had no authority to do so, the ICAR-NIHSAD shall without prejudice to other civil and criminal remedies, cancel the contract and hold the signatory liable for all costs and damages. Each page of the tender and the schedules to the tender and annexure(s), if

any, should be signed by the tenderer and should be uploaded alongwith technical bid.

8. Online tenders are invited under two-bids systems through e-procurement system. **EMD must be deposited with Director, ICAR-NIHSAD during working hours i.e. 10:00AM to 5:00 PM on all working days (except Saturday, Sunday and Gazetted Holidays) before the last date/time for submission of bids, failing which bids will not be accepted. EMD must be in the form of Demand draft/FDR in favour of ICAR Unit, NIHSAD, Bhopal.** Details of EMD as per Annexure – II is required to be submitted by the bidder.
9. Tenders will be opened online by the authorized officer(s) on 15.01.2018 at 11:30 AM. Bidders have two options to participate in tendering process at the time of opening of Bids. Bidders can come at the place of opening of bids (electronically) as done in the conventional tender process or he can visualize the process online without physically being present at ICAR-NIHSAD.
10. The financial bid (BOQ) will be opened for the technically qualified tenderers only. The date of opening of financial bid would be intimated to technically qualified tenderes through E-Procurement system.
11. Tenderer is at liberty to be present or to authorize a representative to be present at the time of opening of the tenders. The name and address of the representative who would be attending the opening of the tenders on your behalf should be indicated in your tender. Name and address of permanent representative of the tenderer, if any, may also be indicated.
12. An amount equivalent to 10% of the total contract value of contract is to be deposited by the selected agency/successful tenderer as Performance Security Deposit only after receiving a communication from the NIHSAD. In the event of non-deposition of the same, the earnest money will be forfeited.
13. No interest on security deposit and earnest money deposit shall be paid by the NIHSAD to the tenderer.
14. The bid validity period is **180 days** from the date of opening of technical bid.
15. The GST or any other tax which is as per the rules of the Government shall be deducted at source from monthly bills of the successful tenderer, as per rules/instructions made applicable from time to time by government.
16. Decision of Director, ICAR-NIHSAD shall be final for any aspect of the work and binding on all parties. Disputes arising, if any, on the work will be settled at his level by mutual consultation and in case of failure of settlement, dispute shall be referred to the sole arbitrator to be appointed by

the Director, ICAR-NIHSAD. The decision of the sole arbitrator so appointed shall be final and binding on the parties. Arbitration proceeding shall be governed by the Arbitration & Conciliation Act, 196 as amended from time to time.

17. Acceptance by the Director, ICAR-NIHSAD will be communicated by fax/express letter or any other form of communication. Formal letter of acceptance and work order of the tenderer will be forwarded as soon as possible, but the earlier instructions in the fax/express letter etc. should be acted upon immediately.
18. The Director, ICAR-NIHSAD does not pledge itself to accept the lowest or any tenders and also reserve to itself right of accepting the tenders whole or in part keeping in view valid reasons Conditional tenders will not be accepted.
19. The Director, ICAR-NIHSAD in its capacity, reserves the right to modify any of the terms and conditions of the work for the work of Replacement of Chilled Water Pipeline in AC Plant of this document, at its discretion, in the interest of the job/work.
20. Successful Bidder/tenderer will have to enter into a detailed contract agreement with ICAR-NIHSAD on non-judicial stamp paper of Rs. 500/- (Five Hundred Only) for work.
21. The following documents/vouchers are required to be uploaded with the technical bid **Part – II (Work Specification):** -
  - a. Scanned copy of DD/FDR of earnest money deposit (EMD) and tender cost form.
  - b. Scanned copy of valid registration certificate issued by National and Small Industries Corporation (NSIC), if applicable.
  - c. Scanned copies of GST registration certificates.
  - d. Scanned copy of experience in supply, installation, testing ,commissioning of chilled water pipe line in AC Plant with at least 2 works worth at least Rs 3.0 lakhs each executed in last 5 years in GOVT/PSU/Autonomous bodies (scanned copies of work contract and certificate of satisfaction from at least 2 clients must be enclosed).
  - e. Scanned copy of an average minimum annual turnover of **Rs. 10.00 lacs** during last three years (enclosed).
  - f. Scanned copy of undertaking for minimum 1 year comprehensive warranty of the Chilled Water Pipeline alongwith all accessories from the date of installation & commissioning.
  - g. Scanned copies of PAN Number.
  - h. Scanned copies of MSME/NSIC (in related service/business), if applicable. The MSME/NSIC firms are exempted from tender cost as well as EMD

subject to submission of their valid registration certificate.

- i. An undertaking as per attached Format (**Annexure – III**) duly attested by Notary on a non-judicial stamp paper of value of Rs. 500/- (Rupees Five Hundred Only) regarding their non-blacklisting by any of the Government Departments, Public Sector Undertakings and/or by Central Vigilance commission during the last three years. **Original undertaking should be submitted alongwith EMD.**

Only those firms who qualify in the technical bid will be considered for financial bid.

**Financial bid (BOQ) should be uploaded separately.**

Yours Sincerely,

**Adm. Officer**

For and on behalf of the Director  
National Institute of High Security Animal Diseases  
Anand Nagar, Bhopal – 462 021 (M.P.)

**E-TENDER DOCUMENT**

**FOR**

**REPLACEMENT OF CHILLED WATER PIPELINE IN AC  
PLANT**

**(IN TWO BIDS)**



**ICAR-NATIONAL INSTITUTE OF HIGH SECURITY ANIMAL DISEASES  
(OIE REFERENCE LABORATORY FOR AVIAN INFLUENZA)  
ANAND NAGAR, BHOPAL – 462022 (M.P.), INDIA  
EPABX TEL. NO. 0755-2757542, 2750647, FAX NO. 0755-2758842**

**Website: - [www.nihsad.nic.in](http://www.nihsad.nic.in)**





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F. No. 9-135/17-18/NIHSAD (P&S)

Dated: - 16.11.2017

## E-TENDER DOCUMENT

FOR

**REPLACEMENT OF CHILLED WATER PIPELINE IN AC  
PLANT**

**(IN TWO BIDS)**

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Adm. Officer

## SECTION – 1

### GENERAL INSTRUCTIONS

1. **GENERAL**

The work is to be executed for the benefit of ICAR-National Institute of High Security Animal Diseases, Anand Nagar, Bhopal – 462022 (M.P.).

2. **SITE VISIT**

The tenderer is advised in his own interest to visit/examine the site of work before submission of his tender. He may obtain all relevant information on or before pre bid meeting that may be necessary for preparation of the bid.

3. **TENDER DOCUMENT**

- i. The tenderer requiring further information or clarification on the E-Tender document may contact the O.C (Engg.), NIHSAD, up to the closing date, during office hours only.
- ii. The tenderer must fill and submit the E-Tender copy without making any additions or alteration in the e-tender document. Incomplete e-tenders and those submitted not as per the instructions are liable to be rejected.
- iii. The E-Tender document alongwith all terms & conditions may be downloaded from CPP Portal (<http://eprocure.gov.in>) and submitted alongwith DD amounting to Rs. 1,000/- (Tender Cost) in favour of **ICAR Unit, NIHSAD, Bhopal** apart from EMD.

4. **MANNER OF SUBMISSION OF E-TENDER**

- i. The E-Tender shall be submitted through CPP Only.

5. **SIGNING OF DOCUMENT**

All pages of e-tender document including various annexures shall be signed and stamped at the lower right hand corner and wherever required by the tenderer.

6. **EARNEST MONEY DEPOSIT (EMD)**

- i. The tenderer shall pay Earnest Money Deposit alongwith the tender, the sum as indicated in the section –III, in the form of Demand Draft/FDR/Banker’s Cheque payable to “**ICAR Unit, NIHSAD, Bhopal**”.
- ii. The Earnest money of the tenderer shall be forfeited by ICAR-NIHSAD without prejudice to any other rights or remedies –
  - a) If the tenderer withdraws his tender during the period of tender validity specified in the tender document.
  - b) If, after acceptance of his tender, the tenderer fails to take up the job.
  - c) If, the tenderer fails to sign the contract in accordance with the terms and conditions of the contract.

- d) If, after acceptance of his tender, the tenderer fails to furnish the Security Deposit.
- e) If, after acceptance of his tender, the tenderer fails to commence the work within 15 (Fifteen) days after receipt of work order to that effect.
- iii. The tenders received without the EMD in the prescribed form shall be rejected.
- 7. **PERIOD OF VALIDITY OF E-TENDER**  
The tender shall remain valid for **180 days** after the date of opening prescribed by ICAR-NIHSAD, Bhopal.
- 8. **CARE IN SUBMISSION OF TENDER**
  - i. Before submitting his tender, the tenderer shall be deemed to have satisfied himself by actual inspection of the site and locality regarding the site condition, working hours, availability of material, stacking space for materials, Approach roads, available working area, working conditions of the Institute, Etc., that are likely to be encountered during the execution of works, and he shall be deemed to have taken all these factors into account while quoting his rates. The rate quoted by him shall be deemed to be all inclusive for completion of work as per Scope of work.
  - ii. The tender document shall not contain any interlunation, erasures or overwriting except as necessary to correct the errors made by the tenderer in which case such correction shall be initiated by the tenderer alongwith his company's stamp.
  - iii. The tender duly filled in all respects must be received by the Director, ICAR-NIHSAD, Bhopal not later than stipulated time and date as mentioned in Section-III/Tender Notice (Critical date sheet).
- 9. **OMMISSION AND DISCREPANCIES**  
Should the tenderer finds discrepancies in, or omissions from the drawings or any of the tender documents or should be in doubt as to their meaning, he should at once notify the authority inviting the tenders, who may send a written instruction to all the tenderers. It shall be understood that every endeavor has been made to avoid any error which can materially affect the basis of the tender and the successful tenderer shall take upon himself and provide for the risk of any error which may subsequently be discovered and shall make no subsequent claim on account.
- 10. **OPENING OF THE E-TENDER**  
At the advertised time and date, the tenders received shall be opened through CPPP (<http://eprocure.gov.in>), in the presence of the intended tenderers, in the committee room of ICAR-NIHSAD. If the advertised date is declared a holiday, the tenders will be opened on the next working day at the same time.

11. **CANVASSING**

Any effort by the tenderer to influence the representatives of NIHSAD in making the decision in respect of tender evaluation or award of contract will result in rejection of the tender.

12. **RIGHT OF ICAR-NIHSAD TO DEAL WITH TENDERS**

The Director, ICAR-NIHSAD, Bhopal, reserves the right to accept or reject any tender or all the tenders at any time prior to award of contract without assigning any reasons whatsoever and no correspondence shall be entertained in this regard. ICAR-NIHSAD also retains its right of providing work preference to public sector undertakings as admissible under Government's present policy.

13. **MISLEADING INFORMATION**

If the tenderer/tenderers deliberately gives/give any wrong information or suppresses/any material facts or makes/make false representations in this tender or creates/create circumstances for the acceptance of his/their tender, ICAR-NIHSAD reserves the right to reject such tender at any stage or cancel the order even after acceptance of the tender at the risk and cost of the tenderer/tenderers.

14. **AWARD OF WORK**

i. ICAR-NIHSAD will notify the successful tenderer through CPP and also in writing by a letter, or Fax/e-mail to be confirmed that his tender has been accepted.

15. **SECURITY DEPOSIT**

i. The successful tenderer has to pay 10% of the tendered amount as security deposit in the form of crossed Bank draft payable to "ICAR Unit, NIHSAD, Bhopal" before undertaking the work/job.

ii. **Security deposit shall be refunded after 2 months from the date of completion of warranty period as per scope of work.**

16. **COMPLETION OF JOB**

i. All the jobs as per the enclosed annexure shall be completed within the stipulated time period as prescribed by ICAR-NIHSAD against each job, penalty shall be charged as per rule mentioned in the "Conditions of contract".

17. **OTHER INFORMATION**

i. Non-compliance with any of the conditions set forth here above is liable to result in the tender being rejected.

ii. The tender documents are not transferable.

## SECTION – II

### GENERAL CONDITIONS OF CONTRACT

#### **CLAUSE 1: EXECUTION OF CONTRACT DOCUMENT**

- 1.1 The tenderer whose tender is accepted shall be required to appear at the office of the “NIHSAD, Bhopal” in person to execute the contract documents within fifteen days from the date of receipt of work order.
- 1.2 Every contract shall be completed in respect of the documents it shall constitute. Not less than 3 copies of the contract documents shall be signed by the competent authority and one copy given to the contractor. The agreement will be drawn on stamp paper of value Rs. 500/-. The contractor has to submit the stamp paper at his cost.
- 1.3 The tenderer shall quote his rates complying with the instructions contained in the tender documents and must tender for all items in the tender schedule by quoting his/her rate for the same. The items shown in the tender schedule are given as a guide and are approximate only and are subject to variation according to the needs of ICAR-NIHSAD, Bhopal. The ICAR-NIHSAD does not also guarantee work under each item of the schedule. No correspondence shall be entertained in this regard.
- 1.4 The tenderer shall keep the offer open for a minimum period of **180 days** from the date of opening of tender or the period extended further by mutual consent from time to time.
- 1.5 Works are required to be completed strictly within the time and date stipulated in the tender document.
- 1.6 The tenderer shall not take the advantage of any misinterpretation of the conditions due to typing or any other error/errors and if there is any doubt, he shall bring such error/errors to the notice of ICAR-NIHSAD, Bhopal without delay.

#### **CLAUSE 2: COMMENCEMENT OF WORK**

The contractor shall commence the works on site within a period of 7 days from the date of issue of letter of work award. Thereafter the contractor shall proceed with the works with due expedition to complete the works within the stipulated time period.

### **CLAUSE 3: TENDERED RATES**

- 3.1 The Tendered rates shall be inclusive of all taxes and cesses, and also inclusive of tax leviable in respect of work contract under provision of Govt. of M.P. sales tax act.
- 3.2 The rates quoted by the contractor must be inclusive of all applicable taxes. No extra payment on this account will be made to contractor. The quoted rates must be valid for one year from the date of opening of tender.
- 3.3 The contractor must visit the site and study the working conditions, site conditions, and the quantum of work involved before quoting the rates for lump-sum items. No claim of the contractor shall be entertained in under estimation of Lump-sum items.

### **CLAUSE 4: EARNEST MONEY DEPOSIT**

- 4.1 Earnest Money alongwith the tender should be in the shape of Demand Draft/FDR/Banker's Cheque payable to **ICAR Unit, NIHSAD, Bhopal**. The tenderer who does not deposit the EMD or who deposit EMD less than the prescribed amount shall be rejected.
- 4.2 The Earnest money of the Unsuccessful tenderers will be refunded after deciding about acceptance or otherwise of the tender, or Expiry of the period of tender validity, No Interest will be payable on EMD.
- 4.3 The Earnest money of the tenderer shall be forfeited to ICAR-NIHSAD without prejudice to any other rights or remedies –
  - a) If the tenderer withdraws his tender during the period of tender validity specified in the tender document.
  - b) If, after acceptance of his tender, the tenderer fails to take up the job.
  - c) If, the successful tenderer fails to sign the contract in accordance with the terms and conditions of the contract.
  - d) If, after acceptance of his tender, the successful tenderer fails to furnish the balance of Security deposit.
  - e) If, after acceptance of his tender, the successful tenderer fails to commence the work within seven days from the date of receipt of work order to that effect.

### **CLAUSE 5: SECURITY DEPOSIT (SD)**

- 5.1 The successful tenderer has to deposit an amount equal to 10% of the tendered value, in form of Demand Draft/FDR/Banker's Cheque drawn in favour of **“ICAR Unit, NIHSAD, Bhopal”**, towards security deposit.
- 5.2 The Earnest Money of the successful tenderer shall be refunded after deposition of Security Deposit.

- 5.3 If any time before the security deposit or any part thereof is refunded to the contractor, it shall appear to the NIHSAD authority or his subordinate in charge of the work, that any work, has been executed with unsound, imperfect or unskillful workmanship or with materials of inferior quality, or that any materials or articles provided by him for the execution of the work are unsound, or of quality inferior to that contracted for, or are otherwise not in accordance with the contract it shall be lawful for the NIHSAD authority to intimate this fact in writing to the contractor and then notwithstanding the fact that the work, materials or articles complained of may have been inadvertently passed, certified and paid for, the contractor shall be bound forthwith to rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require, or if so required, shall remove the materials or articles so specified and provided & other proper and suitable material or articles at his own charges and cost, and in the event of his failing to do so within a period to be specified by the NIHSAD authority in the written intimation aforesaid, the contractor shall be liable to pay compensation at the rate of one percent on the amount of the estimate for every day not exceeding ten days during which the failure so continues and in the case of any such failure the NIHSAD authority may rectify or and remove, re-execute the work or remove and replace the materials or articles complained of as the case may be at the risk and expense in all respects of the contractor. Should the NIHSAD authority consider that any such inferior work or materials as described above may be accepted or made use of it shall be within his discretion to accept the same at such reduced rates as he may fix therefore.
- 5.4 If the contractor fails to rectify the defects after receiving the written instructions from ICAR-NIHSAD, such works shall be done departmentally, and the expenditure shall be deducted from the security deposit of the contractor.

#### **CLAUSE6: LABOUR ACT**

- 6.1 No contractor shall Employ any person who is under the age of 18 years, Director, ICAR-NIHSAD is authorized to remove from work any person who is below 18 years.

- 6.2 The contractor shall pay fair and reasonable wages to the workmen employed by him. In the event of any dispute arising between the contractor and his workmen on the ground that the wages paid are not fair and reasonable, the dispute shall be referred without any delay to the Director, NIHSAD, Bhopal. The decision of the Director, NIHSAD shall be conclusive and binding on the contractor.
- 6.3 All facilities provided in the contract labour act should be provided (Regulation and Abolition Act 1971).
- 6.4 The contractor shall pay fair and reasonable wages as per the minimum wages act (Govt. of India/Govt. of M.P., whichever is higher) prevailing in the locality.
- 6.5 The contractor shall duly comply all provisions of contract labour act (Regulation and Abolition) 1979 and M.P. Contract Labour (Regulation and Abolition) rules 1971, as amended from time to time and all other relevant status and statutory provision concerning payment of wages particular to the workmen employed on the site.

#### **CLAUSE 7: SAFETY OF THE WORKERS**

- 7.1 The contractor shall be responsible for and shall pay any compensation to his workmen under the Workmen's compensation act 1923 (VIII of 1923) (hereafter call the said act) for injuries caused to the workmen.
- 7.2 The contractor shall be responsible for and shall pay the expenses or providing any medical aid to any workman who may suffer bodily injury as a result of an accident.
- 7.3 The contractor shall provide all necessary personal safety equipment and first aid apparatus available for the use of workers employed on the site and shall maintain the same in condition suitable for immediate use at any time and shall comply with following regulations in connection therewith.
- a) The workers shall be required to use the equipment so provided by the contractor and the contractor shall take adequate steps to ensure proper use of the equipment by those concerned.
  - b) When work is carried on in proximity to any place where there is risk or drawing all necessary equipment shall be provided and kept ready for use and all necessary steps shall be taken for prompt rescue of any person in danger.
  - c) Adequate provisions shall be made for first aid treatment of all injuries likely to be sustained during the course of work.



### **CLAUSE 8: MODE OF PAYMENT**

- 8.1 The payment will be made only after successful completion of the entire job. The contractor should submit the first and final bill within 15 days after completion of the work and same will be paid within a month if it is in order.
- 8.2 **Part payment or Running bill is not accepted.** No correspondence shall be entertained in this regard.
- 8.3 On completion of the work the contractor shall be furnished with a certificate by the Concerned Engg./T.O. in-charge of the work of such satisfactory completion. But no such certificate shall be given nor shall the works be considered to be complete until the contractor shall have removed all the rubbish, surplus material, all scaffolding, etc. from the premises. The bill forwarded by the contractor shall be considered for payment only after obtaining the certificate as described above.
- 8.4 All payments for the work will be made through RTGS.
- 8.5 Regarding all payments, inquiry shall be made only to the Director or A.O., ICAR-NIHSAD, Bhopal.

### **CLAUSE 9: TECHNICAL SPECIFICATION**

- 9.1 The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner, and both as regards material and every other respect in strict accordance with specifications as mentioned in the tender document against each job.
- 9.2 Every effort has been made to give detailed specifications for each and every item in the schedule; however, wherever specifications mentioned by ICAR-NIHSAD are not sufficient, the works should be carried out as per CPWD technical specification and works manual with latest correction slip.
- 9.3 In general, all the works should be carried out conforming to ISI test standards and specifications. All the materials used in construction shall conform to the requirement of latest IS specifications.
- 9.4 The Director, ICAR-NIHSAD shall have power to make any alterations in or additions to the original specifications, drawings, designs, and instructions that may appear to him to be necessary or advisable during the progress of the work and the contractor shall be bound to carry out the work in accordance with any instructions in this connection which may be given to him in writing signed by the Director and such alteration shall not invalidate the contract. Payment of such additional works which are not included in the quantities and rates of original tender schedule shall be made on the basis of CPWD Bhopal schedule rates and procedures. Where, however, the work is to be executed according to the designs, drawing and Specifications recommended by the contractor and accepted by the competent authority of ICAR-NIHSAD, the alterations above referred to shall be within the scope of such designs, drawings and

- specifications appended to the tender.
- 9.5 The successful tenderer should make own arrangement to obtain all materials required for the work like cement, sand, water, electricity, etc.
  - 9.6 Samples of all vital materials like Granite, Plywood, Tiles, Locking systems, Glass, Bricks, Taps, etc, are to be approved by the Concerned Eng./Technical Officer, ICAR-NIHSAD, Bhopal. The tenderer has to bear the cost of samples.
  - 9.7 In all cement involved works 53 grade cement (Ambuja / Birla / L&T) to be used.

#### **CLAUSE 10: UNSATISFACTORY AND DEFECTIVE WORKS**

- 10.1 Defective work is liable to be rejected at any stage. The contractor on no account can refuse to rectify the defects merely on reasons that the further work has been carried out. No extra payment shall be made for rectification.
- 10.2 If the progress of any particular portion of the work is unsatisfactory, the concerned Engg./T.O. In-charge shall notwithstanding that the general progress of the work, be entitled to take action after giving the contractor 10 days notice in writing. The contractor will have no claim for compensation, for any loss sustained by him owing to such action.

#### **CLAUSE 11: INCOMETAX & WORK CONTRACT TAX DEDUCTION**

- 11.1 TDS (Tax Deducted at Source) will be as per prevailing rules and regulations of Income Tax Department.

#### **CLAUSE 12: DEDUCTION FOR ELECTRICITY WATER CHARGES**

- 12.1 The contractor has to make his own arrangements for water and electricity. Use of BMC water from any source in the campus is strictly prohibited. If any contractor is found using BMC water and electricity from any point in ICAR-NIHSAD Campus, Water & Electricity charges as decided by the Engineer-in-charge shall be deducted from the bill of the contractor. The decision of the Director is final and binding on the contractor.
- 12.2 If well water and electricity is required to be used from the ICAR-NIHSAD campus, then the contractor has to ask for the same in writing, for which the charges as per the relevant CPWD rules and regulations shall be deducted from the bill of the contractor ( i.e. 1 % for water in all water-cement items, and 1 % for the items wherever Electricity is consumed/ utilized).

### **CLAUSE 13: DAMAGES TO GOVT. PROPERTY**

- 13.1 Compensation for all damages done intentionally or unintentionally by contractor's labour whether in or beyond the limits of Govt. property including any damage caused by spreading of fire, shall be estimated by the concerned in-charge subject to the decision of the Director, ICAR-NIHSAD, Bhopal on appeal shall be final and the contractor shall bound to pay the amount of the assessed compensation on demand, failing which, the same will be recovered from the bill of the contractor.
- 13.2 The contractor shall be responsible for making good the damages done to the existing property or work during construction by his men.

### **CLAUSE 14: SUPERVISION AND INSPECTION OF WORKS AND QUALITY CONTROL**

#### **(A) SUPERVISION**

The contractor shall either himself supervise the execution of the works or shall appoint the competent engineer approved by the Director, to act on his behalf. If in the opinion of the O.C. (Engg.) or concerned in-charge, the contractor has himself no sufficient knowledge and experience of receiving instructions or cannot give his full attention to the works, the contractor shall at his own expenses, employ as his accredited agent a qualified Engineer approved by the Director. If the contractor fails to appoint a suitable agent, the O.C. (Engg.) or concerned in-charge will suspend the works until a suitable agent is appointed and the contractor shall be responsible for the delay so caused to the works and the contractor shall not be entitled for any compensation on this behalf.

#### **(B) INSPECTION**

The contractor shall inform the concerned in-charge in writing when any portion of the work is ready for inspection giving him sufficient notice to enable him to inspect the same without affecting the further progress of the work. The work shall not be considered to have been completed in accordance with the terms of contract until the concerned in-charge shall have certified in writing to that effect. Approval of materials of workmanship of approval of part of the work during the progress of execution shall not bind the concerned in-charge or in any way affect him even to reject the work which is alleged to be completed and suspend the issue of his certificate of completion until such alternations and modifications or reconstruction's have been effected at the cost of the contractor as shall enable him to certify that the work has been

completed to his satisfactions. The contractor shall provide at his cost necessary ladders and such arrangements as to provide necessary facilities and assistance for proper inspection of all parts of the work at his own cost.

#### **CLAUSE 15: MODE OF MEASUREMENT**

- (a) All measurements will be recorded in MKS / SI units, with accuracy up to plus or minus one centimeter. CPWD method of measurement shall be adopted for taking measurements.
- (b) Measurement of each and every item will be recorded on the day of its actual execution. The measurements shall be recorded in the presence of the contractor or his authorized agent. The measurements recorded by the site engineer shall be final and binding on the contractor in case they remain absent during the measurement. No correspondence shall be entertained in this regard.
- (c) Measurements area of granite, tiles, marble, Aluminum sections, etc shall be taken on clear cut exposed areas only.
- (d) In addition to above, the normal CPWD mode of measurement will be adopted wherever ICAR-NIHSAD, terms and conditions on this account are not sufficient.
- (e) Where for proper measurements of the work, it is necessary to have an initial set of levels or other measurements taken, the same recorded as in the authorized field book, measurement book of Government by the Director or his authorized representative will be signed by the contractor who will be entitled to have a true copy of the same made at his cost. Any failure in the part of the contractor to get such levels etc. recorded before starting the work will render him liable to accept the decision of the Director as to the basis of taking measurements. Likewise the contractor will not cover any work which will render its subsequent measurement difficult or impossible without first getting the same jointly measured by him and authorized representative of the O.C. (Engg.). The record of such measurements on the Government side will be signed by the Contractor and he will be entitled to have a true copy of the same at his cost.

#### **CLAUSE 16: SAMPLES AND TESTING OF MATERIALS**

16.1 All Material to be used on the work shall be got approved in advance from the concerned in-charge and shall pass the test or analysis required by him which will be;

- (a) As specified in the specification for the items.
- (b) I.S.I, specifications for the items.
- (c) Such recognized specifications acceptable to concerned in-charge as

equivalent thereto or in absence of such authorized specification. Such requirement test and/or analysis as may be specified by the concerned in-charge in order of precedence given above.

- (d) The contractor shall at his risk and cost make all arrangements /or shall provide for all such facilities as the concerned in-charge may require for collecting, preparing required number of samples for tests or analysis at such time and to such places as may be directed by Engineer and bear all such charges. Such samples shall also be deposited with the concerned in-charge.
- (e) The contractor shall, if and when required, submit at his cost the samples of the materials to be tested or analyzed and if so directed, shall not make use of incorporate in the works any material to be represented by the samples until the required test or analysis have been made and the materials finally accepted by the concerned in-charge.
- (f) The contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measure required to be taken on account of and as a result of testing of the materials.
- (g) In case of materials procured by the contractor, testing as required by the codes and specifications shall be arranged by him at his own cost. Testing shall be done in the presence of authorized representative of the O.C. (Engg.) at the nearest approved laboratory. In addition, testing other than as required by specification is ordered the testing charges, shall be borne by the Department, if she the last results are satisfactory and by the contractor if the same are not satisfactory.

#### **CLAUSE 17: CLAIMS**

- 17.1 No extra work shall be done without the written permission of Director. No claim of extra work shall be paid separately.
- 17.2 Claims for any extra work shall be registered **within 30 days of occurrence** of the event along with first and final bill. No separate bill shall ever be made for any additional or extra works done. ICAR-NIHSAD shall not be responsible if the contractor executes any extra work without written order.

#### **CLAUSE 18: HANDING OVER OF WORK:**

- 18.1 All the works and materials before final taking over by Government, will be the entire liability of the contractor for guarding, maintaining and making good any damages of any magnitude, interim payments made for such work will not alter this position. The handing over by the contractor and taking over by the concerned in-charge will be always in writing of which copies will go to concerned in-charge and the contractor, it is however understood that before taking over such work Govt. will not put into regular use of distinct

from casual or incidental one, except as specifically mentioned elsewhere in this contract or as mutually agreed to.

**CLAUSE 19: OTHER CONDITIONS**

- 19.1 No work shall be done on Sunday and other holidays without the prior permission in writing of the O.C. (Engg.).
- 19.2 Any contractor who does not accept these conditions shall not be allowed to tender for works.
- 19.3 The contractor shall not sublet or assign his contract to others.
- 19.4 Except where otherwise specified in the contract the decision of the Director, ICAR-NIHSAD, Bhopal, shall be final and binding on all parties of the contract upon all questions relating to the meaning of the specifications, designs, drawings, etc, or as to any other question, claim, right, matter, or thing whatsoever, in any way arising out of, or relating to the contract, design, drawing, specifications, etc, or otherwise concerning the works, or the execution, or failure to execute the same, whether arising, during the progress of the work, or after the completion, or abandonment thereof.
- 19.5 If the contractor stops the work in between due to his personal reasons, financial grounds, etc, for more than ten days after the commencement of works, the competent authority of ICAR-NIHSAD shall issue a notice to the contractor to this effect. The contractor has to execute the works within seven days from the date of receipt of the notice, failing which the contract will be terminated, and incomplete works will be executed by some other party at the risk and cost of the contractor. The decision of the Director, ICAR-NIHSAD, Bhopal, will be final in this regard without prejudice to any other rights or remedies whatsoever.

**ANNEXURE -1****AN UNDERTAKING TO BE SIGNED BY THE CONTRACTORS****TO****THE DIRECTOR  
ICAR-NATIONAL INSTITUTE OF HIGH SECURITY ANIMAL DISEASES  
KOKTA ROAD, ANAND NAGAR,  
BHOPAL – 462022 (M.P.).**

Dear Sir,

1. Having examined the tender document thoroughly including instructions to Tenderers, conditions of Contract, Technical specifications, mode of Payment, Schedule of Contract, Quantities, Drawings, other schedules and Annexure, etc, (everything mentioned in the tender document), for execution of above mentioned jobs, We the undersigned offer to execute and complete the above works, if we are awarded the job.
2. We undertake, if our Tender is accepted, to commence the works within seven days of issue of acceptance letter to commence and to complete the whole works comprised in the contract within the stipulated time period as mentioned in the Tender document.
3. If our tender is accepted, we will furnish the Security Deposit as per the terms and conditions mentioned in the Tender Document.
4. Unless and until an agreement is prepared and executed, the Tender together with your written acceptance thereof, shall constitute a binding Contract between us, but without prejudice to your right to withdraw such acceptance.
5. We understand that you are not bound to accept the lowest or any tender you may receive.
6. We hereby agree and accept all the terms and conditions mentioned in the tender document. We also agree to abide by and fulfill all the terms and provisions of the conditions of the contract, and in default thereof to and pay to ICAR-NIHSAD the sums of money mentioned in the said conditions.

**Seal:****(Signature of the Tenderer)****Date:**

**ANNEXURE - II**

**DETAILS OF EARNEST MONEY DEPOSIT (EMD)**

1. JOB: Replacement of Chilled Water Pipeline in AC Plant.

Amount : Rs. 45, 000/-

Demand Draft/FDR No./Banker's Cheque No. ....  
.....

Date of Drawn: -.....

Name of the Bank: .....

Any Other Details: .....

Date: -

SEAL:-

**(SIGNATURE OF THE TENDERER)**



**ANNEXURE – III**

**UNDERTAKING**

I/We have read and understood General Terms and Conditions contained in the ICAR-NIHSAD’s application form for contract. I/We do hereby declare that all the details provided in this application form are true to the best of my/our knowledge and belief and any misrepresentation of facts will render me/us liable to any action as may be deemed fit by ICAR-National Institute of High Security Animal Diseases, Bhopal.

I/We do hereby also accept ICAR-NIHSAD have the right to accept or reject this application and not to issue invitation to Tender to me/us.

I/We undertake to communicate promptly to ICAR-NIHSAD any changes in the condition or working of the firm. It is certified that we have not been blacklisted by any organization of Government of India including Central Vigilance commission (CVC) in the last three years. The undersigned is fully authorized to sign and submit this application form on behalf of the organization, he/she represent. We authorize ICAR-NIHSAD to approach individuals, employees, firms and corporations to verify our competence and general reputation.

Signature: - .....

Name: - .....

Designation: - .....

Address: - .....

Place: - .....

Dated: - .....



भाकृअनुप-राष्ट्रीय उच्च सुरक्षा पशुरोग संस्थान  
ICAR-National Institute of High Security Animal Diseases

(एवियन इन्फ्लूएंजा ओ.आई.ई. संदर्भ प्रयोगशाला)  
(OIE Reference Laboratory for Avian Influenza)

आनंद नगर, भोपाल - ४६२०२२ (म.प्र.), भारत  
Anand Nagar, Bhopal - 462022 (M.P.), India



EPABX Tel. No. 0755-2757542, 2750647, FAX: 0755-2758842, Website: www.nihsad.nic.in

### SECTION – III



## TENDER SCHEDULE

### IMPORTANT DATES AND INSTRUCTIONS

Sr. No.	Details of Schedule	Date, Time, Information
1.	Downloading of tender document	18.12.2017 to 11.01.2018
2.	Acceptance of e-tenders	11.01.2018 upto 5:00 PM
3.	Pre Bid Conference	27.12.2017 at 11:30 AM
4.	Opening of e-tenders (Technical)	15.01.2018 at 11:30 AM
5.	Validity of tender	<b>180 days</b>
6.	Earnest Money deposit	<b>Rs. 45, 000/-</b> in the name of <b>ICAR Unit, NIHSAD, Bhopal</b> in shape of DD/FDR/Banker's Cheque.



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भाकृअनुप-राष्ट्रीय उच्च सुरक्षा पशुरोग संस्थान  
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## **IMPORTANT DATES AND INSTRUCTIONS**

- (1) The scope of present work is “**Replacement of Chilled Water Pipeline in AC Plant at ICAR-NIHSAD, Bhopal.**”
- (2) The work will be awarded on the basis of technical suitability & lowest evaluated & substantially responsive bid.
- (3) E-Tender Document shall be downloaded from Institute website [www.nisad.nic.in](http://www.nisad.nic.in) & <http://eprocure.gov.in/cppp> (CPP Portal) and submitted through CPP alongwith DD amounting to **Rs. 1,000/- (Tender Cost)** in favour of **ICAR Unit, NIHSAD, Bhopal** apart from EMD.
- (4) The e-tender shall be submitted as per schedule/critical date sheet.
- (5) The tenderer shall pay along with the tender the sum of **Rs. 45,000/- (Rupees Forty Five Thousand Only)**, towards Earnest Money deposit in the form of Demand draft/FDR/Banker's Cheque drawn in favour of " **ICAR Unit, NIHSAD, Bhopal**".
- (6) The e-tender duly filled in all respects must only be received through online (CPP).
- (7) The work shall be completed as soon as possible but within the time period stipulated in the work order.

### **TDS AND WCT**

Tax deducted at source will be as per prevailing rules of Govt., of India

### **OTHER DEDUCTIONS**

1% Water charges and 1% Electricity charges shall be deducted from the bill of the contractor based on the discretion of Director of ICAR-NIHSAD.



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## **PART - II**



## **WORK** **SPECIFICATION/TECHNICAL** **SPECIFICATION**



## Technical specification/Scope of Work

### **Name of Work: REPLACEMENT OF THE CHILLED WATER PIPELINE IN AC PLANT**

Online bids are invited under two bid systems through E-procurement system from reputed/well established firms agencies for **REPLACEMENT OF THE CHILLED WATER PIPELINE IN AC PLANT** on work contract basis BSL-3 containment laboratory and animal facility as per the following. The existing chilled water pipeline of Central AC plant room installed and commissioned in 1998 has undergone wear and tear and needs its replacement for smooth functioning of Bio-containment facility

#### **1. CRITERIA OF ELIGIBILITY:**

- a. Experience in supply, installation, testing ,commissioning of chilled water pipe line in AC Plant with at least 2 works worth at least Rs 3.0 lakhs each executed in last 5 years in GOVT/PSU/Autonomous bodies (scanned copies of work contract and certificate of satisfaction from at least 2 clients must be enclosed).
- b. The firm shall have an average annual turnover of **Rs.10 lakhs during** last three years.
- c. A minimum of 1 year comprehensive warranty (onsite) of the Chilled Water Pipeline alongwith all accessories from the date of installation & commissioning.

#### **2. SCOPE OF WORK**

- a. Dismantling and safe removal of existing chilled water pipeline & other system complete in all respect.
- b. Supply, installation, testing and commissioning of new chilled water pipeline system as complete in all respect with all materials and labors etc including dismantling and repairing of civil parts if any.
- c. **This is shut down job, maximum shut down time within 15 days.**

### 3. Materials for Chiller water line specification

S.No.	Item	Size	Make	Qty
1	Chilled water Line Pipe- M.S. class C	Dia-200 mm	As per IS 3589	54 m (24 m will be provided by NIHSAD)
2	Chiller line Pipe(Pump connection)- M.S. class C	Dia-100 mm	AS per IS 1239	34 m
3	Butterfly valve (Wafer type) with flange	Dia-200 mm	<ul style="list-style-type: none"> <li>• Pressure rating – PN16</li> <li>• Valve Design - EN 593 (BS 5155), API 609, MSS SP 67, ISO 5752</li> <li>• Pressure Testing - EN 12266/ API 598</li> <li>• Body - Cast Iron EN 1561 (BS 1452) Gr. 200, Gr. 250</li> <li>• Body liner – Nitrile/EPDM</li> <li>• Disc - Cast Iron EN 1561 (BS 1452) Gr. 250, CF8M</li> <li>• Shaft - BS 970 - 080M40</li> </ul>	2 No.
4	Butterfly valve (Wafer type) with flange	Dia-100 mm	<ul style="list-style-type: none"> <li>• Pressure rating – PN16</li> <li>• Valve Design - EN 593 (BS 5155), API 609, MSS SP 67, ISO 5752</li> <li>• Pressure Testing - EN 12266/ API 598</li> <li>• Body - Cast Iron EN 1561 (BS 1452) Gr. 200, Gr. 250</li> <li>• Body liner – Nitrile/EPDM</li> <li>• Disc - Cast Iron EN 1561 (BS 1452) Gr. 250, CF8M</li> <li>• Shaft - BS 970 - 080M40</li> </ul>	12 No.
5	NRV (Dual Plate Check Valve Wafer Type) with Flange	Dia-100 mm	<ul style="list-style-type: none"> <li>• Rating – ANSI Class 125-12</li> <li>• Body seat – SS 410</li> <li>• Plate seat – SS 316</li> <li>• Design Standard – API 594</li> </ul>	6 No.
6	Bend	Dia-200 mm	Suitable for MS “C” Class pipe	4 No.
7	Flanged Balancing Valves with Flange	Dia-100 mm	<ul style="list-style-type: none"> <li>• Pressure rating – PN16</li> <li>• Design Standard – DIN 3202/BS 7350/BS EN 593</li> </ul>	3 No.

			<ul style="list-style-type: none"> <li>• Body – CI 260 (GG 25)/DI</li> <li>• Bonet – CI 260 (GG 25)/DI (IS 1865 Gr. 450/10)</li> <li>• Hand wheel – Ci 220/WCB/M.S.</li> <li>• Stem – SS 410/431</li> <li>• Lower Disc – SS 410</li> <li>• Upper Disc – SS 410</li> <li>• Steam seal – EPDM</li> <li>• Seat seal - EPDM</li> </ul>	
8	Pressure gauges (with siphon cock)		<b>Pressure range – 0 to 10 kg/cm<sup>2</sup></b>	12 No.
9	Straight type industrial thermometers		Range - -30 to 50 <sup>0</sup> C & -20 to 120 <sup>0</sup> F Red alcohol or mercury	6 No.
10	Flow Switch		<ul style="list-style-type: none"> <li>• Body – Brass</li> <li>• Base plate – Stainless steel</li> <li>• Paddle – Stainless Steel</li> <li>• Cover – ABS</li> <li>• Contact type – SPDT</li> <li>• Contact Rating – 10 Amps, 230V AC, 50 Hz, 1Ph</li> <li>• Max. operating pressure – 16 bar</li> <li>• Protection – IP 54</li> </ul>	3 No.
11	MS Socket for pressure Gauges	3/8 inch		12 No.
12	MS Socket for thermometer	3/8 inch		6 No.
13	MS Socket for water flow switch	1 inch		3 No.
14	Flange and dead end flange	Inner Dia-200 mm		4 No.
15	Flange for pump connection	Inner Dia-80 mm		3 No.
16	Flange for pump connection	Inner dia 100mm		3 nos
17	Bend	Dia-100 mm		6 No.
18	MS Socket for Antifreeze	1/2 inch		3 No.
19	MS Socket for thermostat	1 inch		3 No.
20	Air vent line	Dia-25 mm	M.S. “C” Class	22 m
21	Gate valve	Dia-25 mm	BIS	04 nos
22	Drain pipe line	Dia-50 mm	M.S. “C” Class	15 m
23	Y strainer with flange	Dia-100 mm	<ul style="list-style-type: none"> <li>• Body – Cast Iron CI-260/I.S. 2062</li> <li>• Filter Element – stainless</li> </ul>	03 No.

			steel SS 304 • Pressure rating – 14 to 21 kg/cm <sup>2</sup>	
24	Reducer	To reduce from 100mm to 80mm	For connection between pipe and pump	03

5. Materials required for Insulation of chiller water pipe lines for qty mention in Sr. No. 1, 2 & 22.

S.No	Item Description
1	Black Japan paint.
2	Thermocol section.
3	Armaflex pipe seal.
4	Murgajali.
5	Plaster.
6	Cement primer.
7	Paint.

### **Insulation Specifications**

#### **SCOPE**

The scope of this section comprises the supply & fixing of insulation conforming to these specification & in accordance with requirement of schedule of quantities.

Chilled water piping Insulation 5 Deg Celsius

Inside the plant: thickness & specs with Armaflex Arma-Chek GC

Condition: Ambient Temp 28.3 Deg C, 90% RH

Insulation Materials Technical Specifications:

Outer sheet specification-Arma-Chek GC

Recommended Adhesive-Armaflex Pipe Seal

Summary of pipe Thermal insulation thickness chart & Application.

Insulation material technical specification-Armaflex Class O Nitrile

Insulation material shall be Closed Cell Elastomeric Nitrile Rubber

The Insulation shall have Fire performance such that it passes Class I as per BS476 part 7 for surface spread of flame, also pass fire propagation requirement as per BS476 part 6 to meet the Class O fire category requirement as per 1991 building regulation (England & Wales) and the Building Standard (Scotland) Regulations 1990

Material shall be FM (Factory mutual), USA approved. Unlike other generic materials it should be self extinguishing, does not drip & does not spread flames.



Moisture diffusion resistance factor or 'u' value shall be minimum 7000 for the insulation materials without any out covering

Specification for Manufacturer bonded treated woven glass fiber for outer covering of insulation materials

Temperature Range; 0 Deg C to 105 Deg C Overall (irrespective of the base product)

Color: black

Treatment shall be treated water based acrylic binder to give crisp & non peeling property to the fabric, to help in easy installation minimize fiber erosion good aesthetics & resistance to abrasion, fibre spillage/Thread raveling should be minimum.

Density: 200+/-20 gsm

Tensile Strength: 275+/-25 kg /50 mm (minimum)

Thickness: 0.18 mm/7 mill

Type: Solvent based acrylic adhesive

Peel strength: 1000 gm/25 mm (minimum)-(Adhesive to steel)

**Note:-**

- i. Out of above quantity of 24 m pipe at S.No-1 will be provided by NIHSAD, all other materials are in bidder scope**
- ii. All Nuts, Bolts, washers, gaskets, U clamps wooden supports etc to be used in construction of chiller/condenser line will be under the bidder scope**
- iii. For any item if no make is mentioned then the make shall be as per EPI/EIL/M/s Spectral services approved make**

**6. GENERAL SPECIFICATIONS**

**i. Water piping**

- a.** The pipes fittings and valves shall be of approved make indicated in the tender document. Chilled Water pipes shall be of M.S. class C.
- b.** Drain water pipes shall be of M.S. class C.

**ii. Pipe Fittings**

- a.** The fittings for the pipes should be of good quality conforming to **Bureau of Indian Standard** and for piping with welded joints shall be of good weld able quality. Also the fittings shall be suitable for same pressure ratings as for the piping system
- b.** The dead ends shall be formed with flanged joints shall have 6 mm thick blank between flange pair of 150 mm and over wherever future expansion is to be done otherwise 8mm thick blank end to be welded to pipes up to 250 mm.

**iii. Flanges**

All flanges should be of mild steel as per Bureau of Indian Standard. Flanged

thickness shall be suit class II pressure 3 mm thick gasket shall be used in between flanges. Flanged pair shall be used on all such equipment where ever it is required.

**i. Butterfly valves**

Butterfly valves shall be of PN16 rating for pipe dia 100 mm and 200 mm preferably with fixed linear design to suit duty and flanges.

**ii. Non-return valve**

The Dual plate check valves shall be used for horizontal /vertical run of pipes and shall conform to PN 16 ratings. The valve design shall conform API594 and tested as per ANSI SERIES. The valves shall have cast iron body, and SS410 Plates, SS410 Shafts and nitrile seat. All valves shall be supplied with factory test reports and the manufacturer must have test facilities at their works.

**iii. Y-STRAINER**

The Y strainer shall be fabricated out of CAST IRON .Flanges as per BS10 shall be provided at inlet and outlet of connections .The body shall be pressure tested at 14 kg/cm<sup>2</sup> and shall be hot dip galvanized .Permanent magnet shall be provided in the body of the strainer to arrest MS particles .Filter element shall be of non magnetic 20 gauge SS sheet with 3mm perforation.

**iv The pipe support spacing shall be as follows.**

Dia of pipe	Maximum spacing between supports
Up to 25mm	1.5 meters
30 mm to 50 mm	2 meters
65 to 80 mm	2.5 meters
100 mm to above	3.0 meters

Wherever insulated pipes are running it should be supported in such a way that no under pressure is exerted on the insulated pipe.

**v. TESTING OF PIPE SYSTEM**

All tools tackles labors etc shall be arranged by contractor.

All pipes shall be tested hydraulically at 2 times the maximum operating pressure for a period of 24 hours .All leaks occurring during testing shall be rectified .After repairs of leak it shall be tested again at the same pressure.

In case of piping is tested in parts these sections shall be securely sealed and capped during testing.

**vi. AIR – VENTS**

Air vents for purging of air trapped in piping system shall be provided at the highest point with globe valve of the same size as indicated below:-

Pipe size	valve size
Above 100 to 300 mm	25 mm Dia

**vii. PRESSURE GAUGES**

Bourdon type pressure gauge of 150 mm dia of suitable range shall be made of SS grade SS304.

The dial plate shall be powder coated .All pressure gauges shall be complete with SS siphon.

**viii. INDUSTRIAL TYPE THERMOMETER**

Direct reading V form type thermometer alcohol filled of suitable range at chiller inlet and outlet in separate wells of brass/ gun metal. The v form thermometer shall be made of aluminum die casting with golden color anodizing. The thermometer shall be complete with brass well and the calibration temp shall be Deg C and Deg F.

**ix. INSULATION FOR CHILLED WATER LINE**

- a. Clean the surface with wire brush and make it free with rust and make it free from dirt oil grease and other foreign material.
- b. Press the insulation section tightly over the entire surface to make stronger bond between pipe and insulation.
- c. Apply sealant in the joining section apply vapor barrier on the outer surface of insulation material.
- d. Wrap the surface with chicken wire mesh and finish the surface by sand cement plaster having mixing ratio of sand and cement as 4:1.

**x. GENERAL CONDITIONS**

- a. All the erection materials, such as supports, flanges, gaskets, nut bolts, bends, tees reducers, consumables, insulation etc in required quantities included in the scope of installation even though not specified in scheduled of quantities. Bidders may be advised to visit the site before quoting.
- b. The work shall be carried out in the best workman like manner in conformity with this specifications.
- c. All piping systems shall comply with latest editions of the following regulations wherever applicable.
- d. All piping shall be internally cleaned and flushed by the supplier after erection.
- g. For hydrostatic testing and water flushing ,the supplier shall furnish necessary pumps equipment instruments and piping etc
- f. Color code shall be used to identify pipe material.
- g. The supplier shall be responsible for the quality of welding done by them and shall conduct tests to determine the welding procedure by him.
- h. All piping shall be suspended, guided and anchored with due regard to general requirements and to avoid interference with other pipes hangers electrical conduits and their supports. It is the responsibility to the piping supplier to avoid all interference while locating hangers and supports.
- i. Whenever welding is done for pipes of smaller size special care should be

exercised to avoid clogging of flow area with welding material.

- j. The welding is to be done by IBR qualified welder only.
- k. The manufacturer certificate for pipes to be submitted.
- l. All pipes shall be securely supported, suspended on stands, hangers, clamps etc as required using the existing one's else the contractor shall design all brackets, saddles, anchors, clamps etc. All pipes, supports shall be of steel, coated with two coats of anti corrosive paint and finally finished with paints.



भाकृअनुप-राष्ट्रीय उच्च सुरक्षा पशुरोग संस्थान  
ICAR-National Institute of High Security Animal Diseases

(एवियन इन्फ्लुएंजा ओ.आई.ई. संदर्भ प्रयोगशाला)  
(OIE Reference Laboratory for Avian Influenza)

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## **PART - III**



## **FINANCIAL BID/BOQ**

**Financial Bid (BOQ) should be filled & uploaded separately**

To

**The Director,**  
NIHSAD,  
Bhopal – 462021 (M.P.)

Sir,

I/We submit our tender with respect to financial bid for Replacement of Chilled Water Pipeline in AC Plant at NIHSAD, Bhopal and my/our rate is as follows which may be read with reference to Schedule – II: -

<b>Financial Bid (BOQ)</b> <b>(For reference purpose only and not to be filled with technical bid)</b>				
Tender Inviting Authority: Director, ICAR-NIHSAD, Bhopal Name of Work: Replacement of Chilled Water Pipeline in AC Plant Contract No: 9-135/17-18/NIHSAD (P&S)				
Name of the Bidder/ Bidding Firm / Company :				
<b>PRICE SCHEDULE</b>				
NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	BASIC RATE In Figures To be entered by the Bidder in Rs. P	TOTAL AMOUNT in Rs. P	TOTAL AMOUNT In Words
1	2	7	8	10
1	Work			
1.01	Replacement of Chilled Water Pipeline in AC Plant		0.00	INR Zero Only
1.02	Applicable GST % (Amount in Rs.)		0.00	INR Zero Only
Total in Figures			0.00	INR Zero Only
Quoted Rate in Words		INR Zero Only		

I/We agree to forfeiture of the EMD deposited by me/us in connection with tender if we fail to comply with any of the terms and conditions in whole or in part as paid down in the tender documents. We have carefully read the terms and conditions of the tender and agree to abide by these in letter and spirit.

In other terms and conditions that the tender would like to specify, it will form a part of the schedule.

**Signature**  
**Name and address of the firm with phone number**