

INSTITUTE FOR PLASMA RESEARCH

(An Autonomous Institute under
Department of Atomic Energy, Government of India)
Near Indira Bridge; Bhat; Gandhinagar-382428; Gujarat; India

Phone: 079 23962000

Fax: 079 23962277

TENDER NOTICE No. IPR/TPT/TN/PUR/F/16-17/21 DATED 27-01-2017

Sealed tenders are invited in **TWO PARTS** from the eligible vendors for the following item.

Sr. No	Tender Notice No.	Item	Qty.	Due Date & Time for		Tender Fee	Earnest Money Deposit (EMD)
				Submission of tender	Opening of tender		
1.	IPR/TPT/TN/PUR/F/16-17/21 (TWO PART TENDER)	Design, Fabrication, Pre-dispatch Inspection, Factory Acceptance Tests, Supply and Final Acceptance Tests of Bellow Sealed Control Valve	7 Nos.	5th April, 2017 by 13.00 Hrs. I.S.T.	5th April, 2017 by 14.30 Hrs. I.S.T.	Rs. 700.00 or USD 11.00 or EURO 10.00	Rs. 5,00,000.00 or USD 7252.00 or Euro 6762.00
		Design, Fabrication, Pre-dispatch Inspection, Factory Acceptance Tests, Supply and Final Acceptance Tests of Bellow Sealed ON/OFF Valve at IPR	17 Nos.				

1. For further details, please visit IPR Website : <http://www.ipr.res.in/documents/tenders.html>.
2. Interested parties may download the tender documents & submit their quotation, if they fulfil the eligibility criteria
3. Tender documents will also be issued from this office upto **07-02-2017**. Interested parties may approach us with tender fee.

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Near Indira Bridge; Bhat; Gandhinagar-382428; Gujarat; India

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E-mail : bkbsrao@ipr.res.in, alpesh@ipr.res.in

TWO-PART TENDER

Tender No. IPR/TPT/TN/PUR/F/16-17/21

BID DUE DATE 5th April, 2017@ 13:00 Hrs IST

Date of Opening 5th April, 2017 @ 14:30 Hrs IST

M/s _____

Dear Sirs,

Sub: Design, Fabrication, Pre-dispatch Inspection, Factory Acceptance Tests, Supply and Final Acceptance Tests of Bellow Sealed Control Valve and Bellow Sealed ON/OFF Valve at IPR

This document contains Invitation to tender, tendering conditions, contracting conditions and specifications of stores required by us. The tenders in respect of this case are to be submitted in TWO-PARTS. If you are interested to quote, please go through the contents particularly the tendering conditions and ensure that your quotation reaches us on or before the due date indicated above.

Yours faithfully,

BKBS Rao
Purchase Officer-II

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Email: bkbsrao@ipr.res.in, alpesh@ipr.res.in

Instructions to Tenderers indicating the Tender Number, Last Date and Time for Receipt of Tender, place at which the Tender can be submitted and the Date/Time and Venue in which Tenders will be opened.

Tender No. IPR/TPT/TN/PUR/F/16-17/21 dated 27-01-2017

I	Last Date for reaching both Part - I (Technical & Commercial) and Part - II (Price) of the Tender in Sealed envelopes to Institute for Plasma Research to reach on or before the last date & time.	13:00 Hours (IST) on 5th April, 2017
II	Due Date and Time for Opening of Part-I of the Tender i.e. Techno Commercial Part	14:30 Hours (IST) on 5th April, 2017
III	Venue for Opening the Tender	Institute for Plasma Research Nr. Indira Bridge Bhat, Gandhinagar-382428 Gujarat

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INSTRUCTION SHEET

TENDER NOTICE No. IPR/TPT/TN/PUR/F/16-17/21 DATED 27-01-2017

Purchase of Design, Fabrication, Pre-dispatch Inspection, Factory Acceptance Tests, Supply and Final Acceptance Tests of Bellow Sealed Control Valve and Bellow Sealed ON/OFF Valve at IPR

1. This is a TWO PART Tender. Bidder should submit the bid in Two Parts,
 - (i) **PART – I** : Technical Bid & Commercial Terms and Conditions **Except price.**
 - (ii) **PART – II** : Price Bid (**Price Alone**)Bidders shall submit the bid in duplicate.
2. **PRICE BID FORMAT** : Bidder shall quote price on the Price Bid Format given in Section-E of tender documents.
3. Full details and specifications of the items and general instructions to be followed regarding submission of tenders are indicated in the tender documents.
4. **Proof for fulfillment of eligibility criteria mentioned above should be submitted along with the tender. If the tender is submitted without valid documents, Purchaser shall not consider your offer. Tenders received without proof of eligibility criteria will be rejected.**
5. While requesting for Tender Documents, such request shall indicate **the “REQUEST FOR TENDER DOCUMENTS AGAINST TENDER NOTICE NO. IPR/TPT/TN/PUR/F/16-17/21 DATED 27-01-2017.”**
6. **Tender Fee: The tender fee (non refundable) of USD 11.00 (US Dollar Eleven only) OR EURO 10.00 (EURO Ten only) OR Indian Rs. 700.00 (Indian Rupees Seven Hundred only) should be made in the form of DEMAND DRAFT drawn in favour of Institute for Plasma Research and payable at Ahmedabad, Gujarat (India). Vendor’s name and tender number shall be indicated on the reverse side of the Demand Draft.**
7. **DD should not be prior dated to the date of advertisement. Separate request letter and separate Demand Draft shall be sent for each tender.**
8. **Those who use the downloaded tender documents from IPR Website may submit the prescribed Tender Fee keeping in a separate envelope along with the tender. This envelope should be marked as “TENDER FEE”.**
9. No request for the extension of due date will be considered.
10. Late/Delayed offers will not be accepted.

11. **Due date for submission of Tender: Tender in a sealed envelope (Part-I, Technical Bid, Commercial Terms & Conditions and Tender Fee & EMD in one envelope and Part-II Price-Bid in another envelope) superscribing the envelope with the above tender no., date, due date and brief description of tendered item should be submitted by 13.00 Hrs. IST on 5th April, 2017 to the Purchase Officer, IPR at the following address**

Purchase Officer
Institute for Plasma Research
Near Indira Bridge, Bhat
Gandhinagar – 382428.
Gujarat, INDIA.

Part-I (Techno-Commercial Bid :- Except Price) will be opened on the same day at 14:30 Hrs. I. S. T. in the presence of attending tenderers.

Part-II (Price Bid) : Date of opening of Price Bid of eligible Bidder/s will be intimated to them later on.

12. In the event of any date indicated above is declared as a Holiday, the next working day shall become operative for the respective purpose mentioned herein.
13. IPR will not be responsible for any delay/loss of Tender or documents in transit.
14. Bidders should furnish/enclose full technical details/literature, delivery period and confirm the terms and conditions attached with the tender.
- 15. Bids received without the prescribed Tender Fee and EMD will be rejected.**
16. Bidder will submit technical bid, commercial bid and all supporting documents pertaining to this tender in English.
17. **Specifications :** Technical Specifications & drawings are given in Section-C.
18. **Rejection of bid:**
Non compliance of tender specifications and/or tender documents including terms and conditions will lead to rejection of quotations received.
19. All communications related to this tender must be sent to,
Purchase officer,
Institute for Plasma Research
Near Indira Bridge, Bhat
Gandhinagar – 382428.
Gujarat, INDIA.
Phone: 079 23962022
Fax : 079 23962277
e-mail : bkbsrao@ipr.res.in/alpesh@ipr.res.in/pinto@ipr.res.in
20. The Director, IPR reserves the right to accept or reject any offer in full or part thereof without assigning any reason thereof.

ELIGIBILITY CRITERIA

(The bidder is required to submit all supporting documents as proof for the compliance of the following criteria. The attachments must be serially labelled with the number as given in the table below. Bids received without valid documents and/or incomplete and irrelevant documents are likely to be rejected summarily)

Sr. No.	Essential Eligibility compliance	Evidence for submission	Attachment Sr. No. of proofs and evidence
1.	OEM/Bidder should have minimum 5 years of experience in the field of valves for gaseous helium application.	OEM/Bidder should submit proof for experience alongwith the quotation.	
2.	OEM/Bidder should have an average annual turnover of not less than INR 6.0 crore or equivalent foreign currency over past 3 financial years (2013-14, 2014-15, 2015-16).	OEM/Bidder should submit the audited annual balance sheet along with profit and loss account for the last 3 financial years along with the quotation.	
3.	OEM/Bidder should have supplied similar type of bellow sealed globe valves for gaseous helium application with a single order value of INR 1,00,00,000/- or equivalent foreign currency in India or abroad.	OEM/Bidder should submit the copy of purchase order with technical specifications of the valves and commissioning report along with the quotation.	
4.	Bidder should be a manufacturer or authorized dealer/distributor/agent of the manufacturer. If authorized dealer / distributor / agent, the vendor should submit the valid authorization certificate / letter from their Principal.	Authorized dealer/ distributor/ agent) should submit the latest and valid authorization certificate from their principal. Manufacturer (OEM) should submit the valid documents proclaiming they are manufacturer of the valves.	

Note: Original documents shall be produced for verifications, if required.

The response to tender without submission of proof of above points will summarily be rejected without further communication.

NOTE: Issue of tender documents does not mean that a vendor is qualified to submit tenders. IPR's decision to consider as to whether a vendor has met with the eligibility criteria is final.

TWO PART TENDER

SECTION - A

INVITATION TO TENDER AND TENDERING CONDITIONS

Part I – Techno – Commercial

All commercial & Technical aspects to be given in Part-I

Part – II – Only Price to be given

1.0 INVITATION TO TENDER

1.1 IPR, Invites sealed tenders in duplicate for supply of plant, machinery, equipment, component to the specifications detailed in Section 'C' to this tender document. The conditions of contract which will govern the contract pursuant to the tender are as contained in form no. IPR-FP-12 which is Section 'B' of this tender document. If you are in a position to quote for supply in accordance with the technical specifications indicated in Section 'C' to this tender document and as per conditions in this section and Section 'B' please submit your offer in a manner and method specified below:

1.2 MANNER AND METHOD FOR SUBMISSION OF TENDERS

1.2.1 All tenderers in response to this invitation shall be submitted in Two Parts in ENGLISH as under and in the different envelopes:

1.2.1.1 **Part-I (Techno-Commercial):** This part of the tender shall include/contain all technical details, technical specifications, drawings and also the commercial terms and conditions of contract for the supplies to be made and the services to be rendered EXCLUDING ANY PRICE DETAILS THEREOF.

1.2.1.2 **Part-II (Price):** This part should contain only the prices of the stores offered for supply and the charges for the services to be rendered.

1.2.2 **Part-I (Techno-Commercial)** should contain/include only technical specifications, technical details, literature, reference to earlier supplies of similar equipment without enclosing the purchase order copies, drawings, quantity, time required for submission and approval of drawings, manufacturing and delivery schedule, inspection/testing procedure, itemized list of spares and quantity (without price) recommended by the tenderer for purchase, term of price, mode and terms of payment, mode of despatch, the quantum/percentage of statutory levies payable by the Purchaser as extra and all related commercial terms and conditions for the supplies and for the services like erection and commissioning to be rendered by the tenderers. This part of the tender, i.e. Part-I (Techno-Commercial) shall be enclosed separately in an envelope duly sealed and superscribed with the Purchaser's tender number and the last date and time specified for receipt and opening indicated in the instruction sheet of this tender document. The tenderer shall take special care NOT TO MIX UP the price of the stores in this part of the tender.

1.2.3 **Part-II (Price)** shall include/contain only price, price break-up, freight/safe delivery charges, charges for training of the Purchaser's engineers wherever applicable, lumpsum charges for erection and commissioning work or per diem

charges for the supervision of erection and commissioning work as is envisaged in the Purchaser's tender document, testing charges, third party inspection charges etc. This part of the tender, i.e. Part-II (Price) shall be enclosed separately in an envelope and shall be sent duly sealed and superscribed with the Purchaser's tender number and the last date and time specified for receipt and opening of the tenders as indicated in the instruction sheet of this tender document.

1.2.4 The tender will co-relate the prices in Part-II of the tender with the description of the stores indicated in Part-I (Techno-Commercial) by allotting a running serial number in order to enable the Purchaser to identify the prices with the relative items in Part-I (Techno-Commercial).

1.2.5 Part-I (Techno-commercial) and Part-II (Price) should be enclosed in a common envelope. This envelope containing both Part-I (Techno-commercial) and Part-II (Price) should again be sealed and superscribed with the Purchaser's tender number and the last date and time specified for receipt and opening indicated in the instruction sheet of this tender document and should reach the Purchase Officer on or before the time and date specified for its receipt. If the tenderer fail or omit to furnish/reach anyone part of the tender, i.e. either Part-I or Part-II within the initial due date and time specified for its receipt in the instruction sheet of this tender document, such tenders will be treated as incomplete and are liable for rejection.

1.2.6 If tenderer includes prices of any nature in Part-I (Techno-commercial) of the tender such offers are liable for rejection without any notice to the tenderers.

1.2.7 The tenderers shall ensure that the rates quoted by them are given both in figures and words failing which the tenders are liable to be rejected.

1.2.8 LATE/DELAYED TENDERS

1.2.8.1 If the envelope containing Part-I (Techno-commercial) and Part-II (Price) does not reach the Purchase Officer, IPR on or before the due date and time specified for its receipt, such tenders will be treated as Delayed/Late tenders and will neither be opened nor considered by the Purchaser and will be summarily rejected. The tenderers should therefore take care and ensure that both Part-I and Part-II of their tenders reach the Purchase Officer, IPR on or before the due date and time specified for their receipt to avoid the rejection of the tenders.

1.3 OPENING OF TENDERS

1.3.1 Unless otherwise pre-opened or postponed with advance intimation to the tenderers, tender will be opened in two stages on the date and time indicated in the instructions sheet of this tender document.

1.3.2 Part-I (Techno-commercial) of the tender will be opened at the first stage on the due date and time indicated for opening in the instruction sheet of this tender document while the Part-II (Price) will be opened at the second stage after completion of the evaluation of the Techno-Commercial Part (Part-I) of the tender.

1.3.3 While all the tenderers who submit tenders within the due date and time specified for its receipt will be permitted to participate in the opening of Part-I (Techno-Commercial) of the tender on the due date and time indicated in the instruction sheet of this tender document, opening of the Part-II (Price) of the tender can be attended to only by such of those tenderers whose Part-II (Price) of the tenders are found to be technical suitable/acceptable to the Purchaser and to whom intimation thereof is given by the Purchaser by Email/letter.

1.3.4 The tenderers whose Techno-commercial part (Part-I) are found suitable/acceptable to the Purchaser, will be given seven days advance intimation by the Purchaser to enable such tenderers to depute their representative to participate in the opening of the Part-II (Price) of the tender. The technically unqualified tenderers will neither be given any intimation about the due date and time of opening of Part-II (Price) of the tender nor will they be permitted to participate in the opening of the same. **Part-II (Price) of the technically disqualified tenderers will not be opened.**

1.3.5 DATE FOR OPENING OF PART-II (PRICE):

After completion of technical evaluation, Part-II (Price) of only technically qualified tenderers shall be opened. The due date and time of opening of Part-II (Price) shall be intimated only to the technically qualified tenderers. Whose Part-I offers have been found suitable will only be permitted to participate in the opening of the Part-II (Price) of the tender.

1.3.6 AUTHORITY LETTER

1.3.6.1 The tenderers who wish to participate in the opening of the tenders may depute their representatives to IPR on the respective due date and time as indicated in the instruction sheet of this tender document with an authority letter addressed to the Purchase Officer which should be produced to the officers who are opening the tenders, on demand to prove the bonafide of the representative who participates in the opening of the tender. In case the representative of the tenderer fails to produce such an authority letter on behalf of the tenderer, he will be debarred from participating in the opening of the tenders.

1.3.6.2 The tenderers representative, who reaches the venue of the tender opening late, i.e. after the starting time specified for opening of the tenders, may not be allowed to take part in the tender opening. It should be noted that only one representative of each tenderer will be permitted to participate in the tender opening.

1.4 HOLIDAYS

1.4.1 If the date (s) specified for receipt and opening of the tenders is/are declared as holidays abruptly by the competent authority due to any administrative reasons, then the due date(s) for receipt/opening of tenders will get postponed automatically to the next working day. As for instance, if the due date for receipt of tender falls on 3rd of a particular month and its opening on 4th day of the month and if the 3rd day of the month is declared as a holiday, then the due date for receipt of tenders will stand automatically postponed to 4th day of the month while its opening will be on the 5th day of the month.

1.5 TECHNICAL CLARIFICATIONS

1.5.1 After opening of Part-I (Techno-commercial) of the tender, if it becomes necessary for IPR to seek clarifications from the tenderers, the same will be sought for from the tenderers. In such an event the tenderer shall furnish:

1.5.1.1 Any technical and commercial questions, information, clarifications etc. that may be required pertaining to this tender may be obtained from the Purchase officer. Bidder will send the request for such clarifications to the Purchase Officer minimum 10 working days prior to the due date to submit the bid.

1.5.2 Irrespective of the circumstances whether technical clarifications have been sought for or not from any other tenderers, the tenderers will be free to ask technical clarification concerning the scope details of the tender etc. if they so consider it necessary.

1.5.3 Copies of correspondence sent to the Purchase Officer, IPR relating to price and other related commercial terms and conditions should not be endorsed to the technical authorities.

1.6 VALIDITY OF OFFERS

1.6.1 Offers shall be kept valid for acceptance for a period of 120 (One Hundred Twenty) days from the date of actual opening of Part-II (Price) of the tender. Offers with shorter validity period will be liable for rejection.

1.7 CATALOGUES/TECHNICAL LITERATURE

1.7.1 All necessary catalogues/drawings technical literature data as are considered essential for full and correct evaluation of the offers shall invariably accompany the Part-I (Techno-commercial) of the tender.

1.8 TERMS AND CONDITIONS OF THE CONTRACT

1.8.1 It must be clearly understood that any contract concluded pursuant to this invitation to tender shall be governed by the General Conditions of the Contract as contained in form no IPR-FP-12 which is Section 'B' of this tender document. Tenderers must therefore take special care to go through these general conditions of contract and in exceptional cases if any deviations are proposed, these must be clearly indicated in the Part-I (Techno-commercial) of the tender as a separate annexure instead of merely enclosing their printed conditions of sale. Tenders made subject to counter conditions of far too many deviations from the general conditions of contract i.e. Section 'B' of this tender document are liable to be ignored. It should also be realized that failure to bring out deviations from the General Conditions of Contract contained in Section 'B' of this tender document will imply that the tenderer is willing to execute the contract as per the Purchaser's terms and conditions of contract.

1.9 PRICE

1.9.1 The prices quoted must be FIRM and preference will be given to such tenders. In exceptional cases (e.g. items involving substantial use of raw materials susceptible to sharp fluctuation in prices) if prices are quoted subject to variation it shall be on

the basis of a standard Price Variation Formula. The basis for calculation shall be very clearly stated. Here again preference will be given to the tenders with a specific ceiling on escalation.

1.9.2 Prices quoted shall be in the currency of the country of origin and the offers linking the quoted currency with some other currency are liable to be ignored.

1.9.3 Prices quoted must be on the following basis:

1.9.3.1 F.O.B. / F. C. A. Port of Shipment (i.e. Free on Board the Vessel at the nearest Port of Shipment – packing, inland freight, charges towards loading the consignments on the vessel, documentation etc. included) Name of the Port (Sea/Air) proposed for shipment shall be clearly indicated.

1.10 SPARES AND ACCESSORIES

1.10.1 Tenders for Plant /machinery/equipment/component shall also indicate prices for essential accessories, optional accessories and spares necessary for satisfactory operation of the plant/machinery/equipment.

1.10.1.1 For a period of two years

1.10.2 Prices for accessories and spares shall be itemized. Tenders where only lumpsum prices are indicated are liable to be ignored. Particular care must be taken to list out each item of spare and quantity recommended and also the individual price for these items. These details should be included only in Part-II (Price) of the tender. However, a list of spares and accessories without the price should be included in Part – I (Techno-commercial) of the tender.

1.11 QUANTITY

1.11.1 The Purchaser reserves the right to accept tenders for any quantity of his choice and the tenderers shall be bound to accept a contract for any quantity. The Purchaser also reserves the right to accept or reject lowest or any tender in full or part without assigning any reasons.

1.12 AUTHORITY OF AGENTS

1.12.1 In case where a tender is submitted by an Indian Agent on behalf of his foreign principal, such tender should be supported with a 'Letter of Authority' from such Principal that the Indian Agent has been authorized to submit the tender on behalf of the principal. Tenders not accompanied by such a Letter of Authority are liable to be ignored. However, acceptance of offer will be communicated only to the foreign principals directly. The Foreign Principal shall ensure that he submits offer only through one single Indian Agent.

1.13 AGENCY COMMISSION

1.13.1 Commission payable to the Tenderer's Agents in India, if any, shall be included in the price. Name and address of the Agents and the percentage of commission payable to them and included in the price shall be clearly indicated. The commission will be paid directly to the Indian Agents in equivalent Indian Currency. The Foreign Principal shall ensure that he submits offers only through one single Indian Agents.

1.14 STATUS OF INDIVIDUAL SIGNING THE OFFER

1.14.1 Individuals signing the tender form and other connected documents must specify the capacity in which they sign, like,

1.14.1.1 Whether signing as a 'sole Proprietor' of the firm or his attorney.

1.14.1.2 Whether signing as a 'Partner' of the firm or his attorney.

1.14.1.3 Whether signing for the firm 'As Agent'

1.15 TRAINING

1.15.1 The contractor shall, in special cases, if required by IPR, provide facilities for the practical training of the Purchaser's engineers and technical personnel from India and for their active employment process of plant/machinery/equipment/instrument through the manufacturing period of the contract/stores. Such training would normally be required only in case of special plant/machinery/equipment/instrument and particularly manufactured equipment. In such an event, the Purchaser shall bear travelling and billeting expenses of the trainees and the contractor will be required only to bear the cost of the training program. Wherever, himself would recommend such training, he should furnish the cost of such training and indicates clearly the number of trainees and the duration of the training that he would recommend.

1.16 SUBMISSION OF DRAWINGS

1.16.1 The tenderer shall furnish all drawings pertaining to the plant/machinery/equipment/component to the Purchaser along with the tender for correct understanding and appreciation of the tender in duplicate. Besides, tenderers should also furnish general arrangement, schematic and such other drawings prescribed by the Purchaser within 4 weeks from the date of receipt of a Purchase Order for approval. Such drawing should be furnished along with Part – I (Techno-Commercial) of the tender. Tenderer's drawing will form part of the Purchase Order/Contract only after these are approved by the Purchaser.

1.17 SUB-CONTRACTING/SUBLETTING

1.17.1 The tenderer in the event of his tender being accepted by the Purchaser shall not assign/sublet or delegate the contract or any part thereof without the prior written consent of the Purchaser which consent shall not be unreasonably withheld, but the tenderer may without the Purchaser's consent purchase such parts, accessories, raw materials, etc. from any of the leading and reputed manufacturers in case he does not normally manufacture such items. However the contractor shall be solely responsible for the satisfactory execution of the contract irrespective of the fact whether a part or a portion of a contract has been assigned or sublet by him to a sub-contractor even when such sub-contracting has been done with the prior written consent of the Purchaser.

1.18 SHOP / FACTORY EVALUATION, QUALITY SURVEILLANCE/ INSPECTION AND SUBMISSION OF PROGRESS REPORTS.

1.18.1 The Purchaser or his technical authorities may at his option and prior evaluation of the tender depute his inspector or any quality surveillance of his choice to the

factory/workshop of the tenderer to assess and establish the manufacturing Capability etc., of the tenderer. Similarly, the Purchaser may also depute his Inspector/Quality Surveillance agency of his choice for inspection of the plant/machinery/equipment/component during the various stages of manufacture. In such an event the tenderer/contractor shall

- 1.18.1.1 Allow reasonable facility and free access to his factory/works/records to the Inspector for the purpose of inspection or for ascertaining the progress of manufacture and delivery.
- 1.18.1.2 Provide the drawings, tooling, gauges, instruments etc. required for carrying out the inspection work.
- 1.18.1.3 Produce an inspection plan to the Purchaser's satisfaction notifying him when checkpoints on the plan are imminent.
- 1.18.1.4 Not supply or deliver the plant/equipment/machinery/component unless and until a Shipping Release or an authorization for despatch is obtained in a format provided by the Purchaser. Failure to comply with this instruction will not only result in with holding of the payment to the contractor/supplier but also hold the tenderer/contractor liable for payment of compensation to the Purchaser due to delay in clearance of the equipment/plant/machinery/component from the carriers.

1.19 **ERECTION AND COMMISSIONING**

- 1.19.1 Tenderers must clearly and separately furnish in their offers the terms of supervision of erection and commissioning particularly in respect of plant/machinery/equipment.
- 1.19.2 In respect of Contractors involving installation and commissioning by the overseas supplier where identifiably charges for the same has been quoted by the tenderer, he shall bear the income tax liability as per the rates prevailing at the time of undertaking the job in accordance with the income tax act in force in India, which at present is 20% on the installation and commissioning charges.

1.20 **INSTRUCTION MANUAL**

- 1.20.1 In respect of plant/machinery/equipment/instruments/apparatus, where instruction/ operation manual is normally necessary to enable the user to put the plant/machinery/equipment/instrument/apparatus to proper use, the Contractor shall furnish such an instruction/operation manual specific to the stores being supplied along with the plant/machinery/equipment /instrument/ apparatus. The Contractor shall clearly specify in the offer about his readiness to supply instruction/operation manual.

1.21 **PACKING**

- 1.21.1 Tenderers shall note that packing for shipment shall be in accordance with the instructions outlined in this tender document and each package shall be limited to the size and weights that are permissible under the existing Air and Sea limitations. Even when no packing specification is included in the invitation to tender, it will be Supplier's responsibility to provide appropriate packing depending upon the nature of the supply and the transportation and handling hazards.

1.21.2 The equipment shall be so packed and protected as not to suffer deterioration damage or breakage during shipment and storage in a tropical climate.

1.21.3 Each package shall be properly labelled to indicate the type and quantity of material it contains, the purchase order number, its dimensions and weight and any other necessary data to identify the equipment and relate it to contract.

1.22 DEVIATIONS TO PURCHASER'S SPECIFICATIONS AND CONDITIONS OF CONTRACT

1.22.1 If any deviation or substitution from the technical specifications contained in Section "C" to this tender document is involved, such details should be clearly indicated in Part-I (Techno-Commercial) and should be added as an annexure to Part-I (Techno-commercial) of the tender as otherwise it shall be an admission on the part of the tenderer that he will supply the equipment as specified by the Purchaser. Similarly, deviations to the Purchaser's General Conditions of Contract/Special Conditions of Contract contained in Section "B" of this tender document shall be indicated by the tenderer in another annexure to Part-I (Techno-commercial) of the tenderer.

1.22.2 Part-II (Price) should be furnished in accordance with the format provided by the Purchaser at Section "E" of this tender document.

1.23 DELIVERY

1.23.1 Tenderers should strictly adhere to the delivery schedule mentioned in the offer.

1.24 ACCEPTANCE OF TENDERS

1.24.1 Acceptance of tenders by the Purchaser will be sent by fax, E-mail, letter etc. within the validity of the tender and such a fax, email, letter etc. would then be followed by a formal purchase order/contract. The tenderer whose offer is accepted will proceed with the execution of the contract on the basis of such advance acceptance of tenders without waiting for a formal purchase order/contract and will be responsible to seek and obtain whatever clarifications that are necessary from the Purchaser to proceed with the manufacture without waiting for a formal purchase order/contract and delivery period will be reckoned from the date of the Letter/ /Fax of Intent.

1.25 RESULT OF THE TENDERS

1.25.1 Unsuccessful tenderers will not be informed of the result of their tenders.

1.26 SETTLEMENT OF COMMERCIAL TERMS AND CONDITIONS OF CONTRACT

1.26.1 In case the commercial terms and conditions of sale/contract stipulated in Part - I (Techno-commercial) of the tender submitted by the tenderer are at variance with the Purchaser's General Conditions of all Contracts/Special Conditions of Contract stipulated in Section "B" of this tender document, the Purchase Officer will settle the commercial terms and conditions of contract with the tenderers chosen for award of the contract by holding discussions with them OR by sending Fax/Letter/E-mail etc. In case the concerned tenderer to whom an intimation thereof is given does not respond/fail to respond to communication sent by the Purchaser within the date specified, his tender is liable for rejection and no complaints whatsoever will be entertained from the tenderer for rejection of this tender. The tenderers should not discuss with the technical authorities/user department any of the commercial terms

and conditions of contract and any agreement/understanding reached between the tenderer and the technical authorities will not be valid and binding.

1.27 OFFERS BY FAX, TELEX, CABLE, TELEGRAM & E-MAIL

1.27.1 Offers sent/submitted by fax, telex, cable, telegram and e-mail will not be considered at all and are liable for rejection without any notice to the Tenderers.

ADDITIONAL TENDERING CONDITIONS.

1. Installation and commissioning

- a) Wherever, the purchaser's invitation to tender calls for installation and commissioning or supervision of installation and commissioning of the instrument/equipment by the tenderer, the tenderer must clearly and separately quote the prices for the supply of the stores and the charges and the terms for installation and commissioning or supervision of installation and commissioning, as the case may be. The charges towards installation and commissioning should not be included in the price of the stores.
- b) In respect of contracts involving installation and commissioning by the overseas supplier where identifiable charges for the same has been quoted by the tenderer, he shall bear the Income-tax liability as per the rates prevailing at the time of undertaking the job in accordance with the Income-tax Act in force in India, which at present is 20% on the installation and commissioning charges.
- c) When the scope of the contract includes installation and commissioning, it shall be the sole responsibility of the contractor to undertake the installation and commissioning as and when called for, by the purchaser.

2. Performance Bank Guarantee:

- 2.1 In the event of acceptance of the offer in respect of plant, machinery, equipment, instrument, etc. the tenderer will be required to submit a performance bank guarantee for 10% of the total value of the contract from SBI/any nationalized bank or private sector banks, namely, ICICI Bank, IDBI Bank, HDFC Bank and AXIS Bank, on a non-judicial stamp paper of appropriate value valid till 2 months beyond the expiry date of warranty period as per the Purchaser's format towards satisfactory performance of the plant, machinery, equipment, instrument, etc. during the warranty period. In case of bids in currency other than INR performance bank guarantee shall be furnished from any bank of international repute.
- 2.2 In case of non-submission of performance bank guarantee by the Contractor, an amount equivalent to 10% of the total value of the stores and other charges admitted in the contract will be retained by the purchaser till the expiry of the warranty period of the stores.
- 2.3 Offers of the tenders who are not agreeable to furnish performance bank guarantee or retaining of an equivalent amount by the purchaser as per clause No. 2.1 and 2.2 above, are likely to be rejected.

3. STATUTORY LEVIES SUCH A CENTRAL EXCISE DUTY, CUSTOMS DUTY AND SALES TAX

3.1 **EXCISE DUTY**

3.1.1 Institute for Plasma Research is entitled for Excise Duty Exemption as per Notification

No.10/97-Central Excise dated 1.3.1997. Necessary Excise Duty Exemption Certificate will be provided by the purchaser after placement of order, but prior to dispatch of the material.

3.1.1 The bidders should not include the Excise duty in the quoted price, which can put them into a disadvantageous position. They should, however, quote separately the percentage /quantum of excise duty applicable.

3.1.2 Excise Duty Exemption Certificate will be issued only in favour of the contractor with whom the purchase order is placed for the end product and not in favour of the third party. However, in case the offer is received from a sole-selling agent of the original equipment manufacturer for which documentary proof should be submitted, issue of Excise Duty Exemption Certificate in favour of the original equipment manufacturer can be considered, provided such request is made in the original offer.

3.1.3 The tenderer shall be solely responsible for the declaration regarding excise duty made in his offer and shall indemnify the purchaser from any claim or its liability from the excise authorities at any stage.

3.1.4 In case of tenderers quoting excise duty as 'NIL', it will be taken that in the event of an order no excise duty shall be payable during the currency of the contract and the purchaser will not entertain any request for admission of excise duty or issue of excise duty exemption certificate under any circumstances.

3.2 **CUSTOMS DUTY**

3.2.1 The purchaser is entitled for assessment of Customs Duty at the concessional rate of 5% as per Amendment No. 24/2002-Custom dt. 1.3.2002 to Customs Notification No.51/196-Custom dt. 23.7.1996, issued by the Department of Revenue, Ministry of Finance in respect of purchases made for the Research Institutions under the Department of Atomic Energy, and the purchaser will obtain and provide the requisite certificate from the appropriate authority for availing of the concessional rate of custom duty.

3.2.2 In case an Indian supplier/agent submits an offer for supply of out rightly imported stores in Indian Rupees, they should quote the price for sale on High-Seas, i.e. CIF Port of Destination (like CIF Ahmedabad). However, the transit insurance for the same should be taken from an Indian Insurance company nominated by the purchaser, so as to provide insurance coverage from anywhere in the world to anywhere in India. The Custom Clearance of the consignment in such cases will be arranged by the purchaser.

3.2.3 Wherever, against a requirement, both indigenious as well as imported offers are received, the offers for imported stores will be evaluated on the basis of the total landed cost after loading the custom duty and other levies as may be applicable from time to time for taking purchase decision.

3.2.4 Customs Duty exemption certificate will not be issued for raw materials/components or any other intermediary materials going into the manufacture of the end product.

3.3 **SALES TAX**

3.3.1 Sales/General/Taxes where legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done no claim for Sales/General Taxes will be admitted at any later stage and on any ground whatsoever. **Purchaser has no 'C' or 'D' form.**

- 3.3.2 When Sales/General Sales Tax is claimed as extra by the Contractor/ Supplier in general and on packing charges in particular the following certificate should be submitted by the Suppliers/Contractors to the paying authority on the bills itself:-
- 3.3.2.1 Certified that the goods and packing charges on which Sales Tax/Central Sales Tax had been charged have not been exempted under the Central Sales Tax or the State Sales Tax Act or the rules made thereunder and the amount charged on account of Sales Tax on these goods and packing charges are not more than what is payable under the provision of relevant Act or the rules thereunder.
- 3.3.2.2 Certified further that we have actually paid Sales Tax/Central Sales Tax and are being assessed to Sales Tax on packing charges and also that where there are statutory exemptions, under the relevant Act/Law of the State Government concerned, we have availed ourselves of it and certified non-availability of such a provision for Sales Tax on packing charges wherever claimed.
- 3.3.2.3 Certified that in respect of amount claimed in the bill no claim is pending for refund or is admissible Certified that in the event of our getting refund in whole or in part of the element of Sales Tax/Central Sales Tax on packing charges, claimed from Government, we shall pass on the benefit to the Purchaser by remitting to Government the amount equivalent to the amount of refund obtained by us.
- 3.3.2.4 Certified further that we (our Branch or Agent) _____ (address) _____ are registered as dealers in the state of _____ under Local Regn.No. _____ and in the State of _____ under Central Regn.No. _____ for the purpose of Sales tax.

4. PURCHASE PREFERENCE

In respect of offers from Central Public Sector Enterprises, they will be eligible for purchase preference, if any, when they compete with the Private Sector Units as per the policy of the Government of India in force at the time of evaluation provided their offer is technically suitable.

5. PRICE PREFERENCE FOR MICRO & SMALL ENTERPRISES

In respect of offers from SSI units and Micro & Small Enterprises (MSEs) registered with appropriate Government authorities will be eligible for price preference, as admissible as per the policy of Government of India provided their offer is technically suitable.

6. TDS/Work Contract Tax/OR any other leviable taxes or duties :

- (i) **Tax Deduction at Source (TDS):** Applicable Income Tax will be deducted at source. In the case of Indian Bidders, applicable rate will be as per Section 194 of Income tax Act, 1961. In case of overseas bidders it will be governed by Section 195 of Income Tax Act 1961 and Double Taxation Avoidance Agreement (DTAA) with the bidders Country.
- (ii) **Work Contract Tax (WCT):** Applicable WCT will be deducted at source as per Section 59 B of Gujarat Value Added Tax Act, 2005. Contracts having value less than Rs. 1 Crore are exempted.
- (iii) **Any other leviable taxes or duties:** If applicable, the same shall be recovered from the contractor/s bill and necessary certificate will be issued to the contractor.

7. Offers from Indian Agents on behalf of foreign suppliers:

In case the tender is submitted by an Indian supplier/Indian agent on behalf of their foreign supplier/ principals, following documents should be submitted with the tender, failing which, their offer is liable to be ignored.

- a. Photocopy of the Agency Agreement between the Principals and the Indian Agent showing the percentage or the quantum of agency commission payable and a Letter of Authority from the Principals authorizing the Indian Agents to submit the tender on their behalf.
- b. The type and nature of after sales services to be rendered by the Indian Agent.
- c. Both Indian Agent or Principal/OEM can not bid simultaneously for the same item /product in the same tender.
- d. The Indian Agents are allowed to quote on behalf of only one foreign Principal/ Supplier against this tender.
- e. Copy of Registration Certificate with DGS&D or DPS.

8. Security Deposit Bank Guarantee:

In the event of acceptance of an offer, the tenderer will be required to submit a security deposit for 10% of the value of the contract/order in the form of Bank Guarantee valid till atleast 2 months beyond the contractual date of completion of the order/contract. The bank guarantee should be executed by SBI/any nationalised bank or private sector banks, namely, ICICI bank, IDBI bank, HDFC bank or AXIS bank, on the requisite Non-judicial Stamp Paper of appropriate value, as per the purchaser's format. In case of bids in currency other than INR, bank guarantee shall be furnished from any bank of international repute.

Offers wherein tenderers declined to submit Security Deposit are liable to be rejected.

EXEMPTION FROM PAYMENT OF SECURITY DEPOSIT FOR INDIAN MANUFACTURERS SUBMITTING THEIR OFFER IN INR.

In case the tenderer is registered with DGS&D, NSIC, DPS or Micro and small (MSEs) vendors registered with NSIC under single point registration scheme can be considered for exemption from Security Deposit to the extent of the monetary limit of such registration, provided the past performance of the Contractor is satisfactory. In respect of contracts beyond the monetary limits of such registration, the Contractor shall furnish a Bank Guarantee for 10 % of the excess value, towards Security Deposit

9. Conditional Discount:

In case the tenderer offers any conditional discount with regard to acceptance of their offer within a specific period or for the specific payment terms, delivery, quantity etc. the purchaser will not take into consideration such conditional discount while evaluating their offer.

10. Past Performance:

In case the past performance of the tenderer is not found to be satisfactory with regard to quality, delivery, warranty obligation and non-fulfilment of terms and conditions of the contract, their offer is liable to be rejected by the purchaser.

11. Capacity & Financial Standing:

In case it is found that the tenderer does not possess the requisite infrastructure, capacity, capability and their financial standing is not satisfactory, such tender is liable to be rejected by the purchaser.

12. EXPORT LICENCE / EXPORT PERMISSION:

It is entirely the responsibility of the suppliers who are quoting for materials of foreign origin to ensure obtaining export permission/licence/authorisation as required from the respective Government before arranging shipment. This Department would not accept post supply inspection by any agency/authority of any foreign country. It is, therefore, necessary that the vendors offering materials from foreign countries shall have thorough knowledge of export contract regulations in vogue in those countries. The vendors shall indemnify the purchaser against any consequences in respect of any end-use declaration they/their overseas Principals may furnish to the government/government agencies of the country of origin of the materials, while seeking export permission/licence. Post supply inspection, contrary to the terms and conditions of purchaser's contract shall be deemed to be null and void. This Department reserves the right to reject any offer, which is not in conformity with the above instructions.

Whenever an End-use Certificate is desired by the contractor, the same shall be clearly mentioned in the offer and the purchaser shall provide an End-user Certificate as per the format given below. The Purchaser will not provide any other document/declaration in this regard.

END USER STATEMENT:

We hereby certify that the item/s i.e.....being procured from
M/s.....
...
against our Purchase Order No. IPR/.....dated.....
will be used for.....

We also certify that the item/s will not be used in designing, developing, fabricating or testing of any chemical, biological, nuclear, or weapons of mass destruction or activities related to it.

It is further certified that we will not re-export the Item/s prior to obtaining permission from the concerned authorities as may be required".

13. Country of Origin:

Wherever the tenders are for imported stores, the Country of Origin of the stores must be clearly specified in the offer.

14. Confidentiality:

The drawings, specifications, prototypes, samples or any other correspondence/details /information provided by the Purchaser relating to the tender or the contract shall be kept

confidential by the Contractor, and should not be disclosed or passed on to any other person/firm without the prior written consent of the Purchaser. This clause shall apply to the sub-contractors, consultants, advisers or the employees engaged by the contractor.

15. Compliance with the Security Requirements of the Purchaser:

The Contractor shall strictly comply with the Security Rules and Regulations of the Purchaser in force and shall complete the required formalities including verification from Police and any other authority and obtain necessary prior permission for entry into the Purchaser's premises, wherever authorised by the Purchaser.

16. Rates to be Quoted in Figures & Words:

The tenderers shall ensure that the rates quoted by them are given both in **figures and words** failing which the tenders are liable to be rejected.

17. Permanent Account Number (PAN) :

Tenderers are required to submit a true copy of the PAN Card/Letter and copy of the factory Registration/Licence or shop establishment certificate as applicable with the quotation, failing which the tenders are liable to be rejected.

18. FREE ISSUE MATERIAL: *(This clause shall apply only to contracts for supply of fabricated equipment with purchaser's Free Issue Materials (FIM)).*

Wherever contracts envisage supply of Free Issue Material (FIM) by the Purchaser to the contractor for fabrication of the contracted equipment/stores, such Free Issue Material shall be safeguarded by an insurance policy to be provided by the Contractor at his own cost for the full value of such materials and the insurance policy shall cover, the following risks specifically and shall be valid for six months beyond the contractual delivery date:

1. **RISKS TO BE COVERED:** Any loss or damage to the Purchaser's materials due to fire, theft, riot, burglary, strike, civil commotion, terrorist act, natural calamities etc. and any loss or damage arising out of any other causes such as other materials falling on purchaser's materials.

2. **INSURED BY :** (Name of the Contractor)

3. **BENEFICIARY :** Institute for Plasma Research
Nr. Indira Bridge
Bhat, Gandhinagar-382428
Gujarat
INDIA

4. AMOUNT FOR WHICH INSURANCE POLICY TO BE FURNISHED. The amount will be indicated in the respective Contract.

Free Issue Material (FIM) will be issued to the Contractor only after receipt of the Insurance Policy from the Contractor. The contractor shall arrange collection of the FIM from the Purchaser's premises and safe transportation of the same to his premises at his risk and cost.

Notwithstanding the insurance cover taken out by the Contractor as above, the Contractor shall indemnify the Purchaser and keep the Purchaser indemnified to the extent of the value

of free issue materials to be issued till such time the entire contract is executed and proper account for the free issue materials is rendered and the left over/surplus and scrap items are returned to the Purchaser. The contractor shall not utilize the Purchaser's free issue materials for any job other than the one contracted out in this case and also not indulge in any act, commission or negligence which will cause/result in any loss/damage to the Purchaser and in which case, the Contractor shall be liable to the Purchaser to pay compensation to the full extent of damage/loss. The Contractor, shall be responsible for the safety of the free issue materials after these are received by them and all through the period during which the materials remain in their possession/control/custody. The free issue materials on receipt at the Contractor's works shall be inspected by them for ensuring safe and correct receipt of the material. The Contractor shall report the discrepancies, if any, to the Purchaser within 5 days from the date of receipt of the material. The Contractor shall take all necessary precautions against any loss, deterioration, damage or destruction of the FIMs from whatever cause arising whilst the said materials remain in their possession/custody or control. The free issue materials shall be inspected periodically at regular intervals by the Contractor for ensuring safe preservation and storage. The Contractor, shall also not mix up the materials in question with any other goods and shall render true and proper account of the materials actually used and return balance remaining unused material on hand and scrap along with the final product and if it is not possible within a period of one month from the date of delivery of the final product covered by this purchase order. The Contractor, shall also indemnify the Purchaser to compensate the difference in cost between the actual cost of the free issue material lost/damaged and the claim settled to the Purchaser by the insurance company. The decision of the Director, IPR, as to whether the Contractor has caused any loss, destruction, damage or deterioration of the free issue materials while in his possession, custody or control from whatever cause arising and also on the quantum of damage suffered by the government, shall be final and binding upon the Contractor

19. RESTRICTED INFORMATION CATEGORIES UNDER SECTION 18 OF THE ATOMIC ENERGY ACT, 1962 AND OFFICIAL SECRETS UNDER SECTION 5 OF THE OFFICIAL SECRETS ACT, 1923

Any contravention of the above mentioned provisions by the contractor, sub-contractor, consultant, adviser or the employees of the contractor will invite penal consequences under the aforesaid legislation.

20. PROHIBITION AGAINST USE OF THE NAME OF ANY INSTITUTION OF DEPARTMENT OF ATOMIC ENERGY WITHOUT PERMISSION FOR PUBLICITY PURPOSES

The Contractor or sub-contractor, consultant, adviser or the employees engaged by the contractor shall not use the name of any Institution of Department of Atomic Energy for any publicity purpose through any public media like Press, Radio, TV or Internet without the prior written approval of the Purchaser.

21. LIABILITY

Tenderers shall be liable for any damage to the purchaser or any third party out of any patent or latent defect in the goods supplied by him or sub-standard services rendered by him.

22. PURCHASER'S RIGHT

The Purchaser shall be under no obligation to accept the lowest or any other tender and shall be entitled to accept or reject any tender in part or full without assigning any reasons whatsoever.

23. FLUCTUATION IN THE EXCISE DUTY/CUSTOMS DUTY

Unless otherwise specifically agreed to in terms of the Contract, the purchaser shall not be liable for any claim on account of fresh imposition and /or increase in Excise Duty, Customs Duty and Sales Tax on raw materials and/or components used directly in the manufacture of the contracted stores, taking place during the pendency of the contract.

24. EARNEST MONEY DEPOSIT (EMD)

Bid must be submitted along with interest free Earnest Money Deposit (EMD) for USD 7252.00 (US Dollars Seven Thousand Two Hundred Fifty Two only) OR EURO 6762.00 (EURO Six Thousand Seven Hundred Sixty Two only) OR Indian Rs. 5,00,000.00 (Rupees Five Lakhs only) by way of Demand Draft drawn in favour of **Institute for Plasma Research** payable at **Ahmedabad, Gujarat, INDIA**. EMD of unsuccessful bidder(s) will be returned after finalization of the contract. The successful Tenderers EMD shall be discharged upon the Bidder submitting the Security Deposit as specified in the contract/purchase order, without any interest.

24.1 The Tender Fee/EMD in case of INR shall be from State Bank of India (SBI)/any Nationalized Bank or any one of the Banks mentioned in bracket (ICICI, IDBI, HDFC, AXIS)

24.2 In case the Tender Fee/EMD is from any foreign Bank, it should be from a first class bank of international repute.

Exemption from payment of EMD: The firms registered with DGS&D, NSIC, DPS or Micro and small (MSEs) vendors registered with NSIC under single point registration scheme are exempted from payment of EMD provided valid registration certificate is submitted along with the offer. In the case of foreign bidders, payment of EMD is exempted if they submit their bid directly or through their Indian agent in **foreign currency** against the tender document bought by them, so that the order can be placed directly on their Principals.

The EMD may be forfeited:

- i. If a Tenderer withdraws or amends or modifies or impairs or derogates its bid during the period of bid validity specified by the Bidder on the Bid Form; or
- ii. In case of a successful tenderer, if the tenderer fails to furnish order acceptance within 15 days of the order or fails to submit the Security Deposit within 21 days from the date of contract/order.

25. SAMPLES/PROTOTYPES

If any called for shall be submitted free of all charges by the Tenderer and the Purchaser shall not be responsible for any loss or damage thereof for any reason whatsoever. In the event of non acceptance of the tender, the tenderer will have to make arrangements to remove/collect the sample/prototypes at his own expenses.

GENERAL CONDITIONS OF CONTRACT

Form No IPR-FP-12

GENERAL CONDITIONS OF CONTRACT
APPLICABLE TO **PURCHASE ORDER / CONTRACTS** FOR IMPORTED STORES
PLACED BY THE INSTITUTE FOR PLASMA RESEARCH

SECTION – 1

1. **PEAMBLE**

1.1 While the conditions contained in Section I will apply to all contracts. Section II will also apply to contracts for Plant/Machinery/Equipment/Instrument.

2.0 **GENERAL CONDITIONS OF CONTRACT**

2.1 **DEFINITIONS AND INTERPRETATION**

2.1.1 In the contract and the general and special conditions governing it, unless the context otherwise requires

2.1.2 “PURCHASER” means the shall mean the Institute for Plasma Research, acting through the Director or his authorized representative [herein after called as “IPR”]

2.1.3 “DIRECTOR”, means the Director of IPR, for the time being in the administrative charge of the Director, IPR and includes the Senior Purchase Officer, Purchase Officer or Assistant Purchase officer or any other officer authorized for the time being to execute contracts relating to the purchase and supplies of stores on behalf of the Purchaser.

2.1.4 “CONTRACTOR” or “SUPPLIER” means the individual firm or company with whom or with which the contract/purchase order for supply of Stores is placed and shall be deemed to include his successors, heirs, executors, administrators and permitted assignees, as the case may be.

2.1.5 “CONTRACT” or “PURCHASE ORDER” means and comprises of a Letter or *Cable or *Telex or *Fax(*followed by a written confirmation) conveying acceptance of Contractor’s offer and invitation to tender, tender containing offer, advance acceptance of the offer, acceptance of offer, general and special conditions of contract specified in the acceptance of offer and any subsequent amendments/alterations thereto made on the basis of mutual agreement.

2.1.6 “STORES” OR “MATERIAL” means the goods specified in the contract/purchase order which the contractor has agreed to supply under the contract.

2.1.7 “SUB-CONTRACTOR” or “SUB-SUPPLIER” means any contractor or supplier engaged by the contractor or the supplier with the prior approval of the Purchaser in relation to the contract/purchase order.

2.1.8 “INSPECTOR” or “QUALITY SURVEYOR” means any Engineer nominated and deputed by the purchaser or their appointed Consultants or quality Surveillance Agency or any other person from time to time authorized by the Purchaser to act as

his representative for the purpose of inspection of stores under the contract/purchase order.

2.1.9 PARTIES

2.1.9.1 The parties to the contract are the Contractor and the Purchaser and the Purchaser named in the Contract/Purchase Order.

2.2 **AUTHORITY OF PERSON SIGNING THE CONTRACT ON BEHALF OF THE CONTRACTOR**

2.2.1 The person signing the contract or the purchase order or any other document in respect of the contract or purchase order on behalf of the contractor shall be deemed to warrant that he has the authority to bind the contractor

2.3 **SUB-CONTRACTING**

2.3.1 The contractor/supplier shall not assign, sublet or delegate the contract or any part thereof without the Purchaser's prior written consent, which consent shall not be unreasonably withheld, but he may without the Purchaser's consent purchase such parts, accessories or associated equipment as he does not normally manufacture.

2.4 **DRAWINGS AND SPECIFICATIONS**

2.4.1 The drawings and specifications are intended to be complementary and to provide for and comprise everything necessary for the completion of supply. Any material shown on the drawing even if not particularly described in specifications or vice versa is to be supplied by the Contractor as if it were both shown and specified.

2.4.2 Should any discrepancy be noted in the drawings and/or specifications and should any interpretation of the same be required, the matter shall be referred to the Purchaser for clarification which shall be binding upon the contractor. Otherwise, the contractor shall assume responsibility for the interpretation of the drawings and specifications including interpretation by his sub-contractors.

2.4.3 Should any difference or dispute arise with regard to the true intent and meaning of drawings or specification or should any portion of the same be obscure or capable of more than one interpretation, the same shall be decided by the Purchaser whose decision shall be final.

2.4.4 All lettering on the drawings is to be considered as part of the specification and contract. In all cases figured dimensions are to be followed rather than those indicated by scale. Large scale drawings will take precedence over smaller scale drawings.

2.4.5 The contractor's drawings shall, when approved by the Purchaser, be deemed to be included in the list of drawings which form part of the contract. The contractor shall not proceed with fabrication until all drawings associated therewith have been duly approved by the Purchaser.

2.4.6 The Contractor shall be responsible for and shall pay for any alterations of the stores and shall indemnify the Purchaser for any consequential expenditure incurred by the Purchaser due to any discrepancies, errors, omissions in the drawings or other particulars supplied by him whether such drawings or specifications have been

approved by the Purchaser or not, provided that such discrepancies, errors or omissions be not due to inaccurate information or specifications furnished to the contractor on behalf of the Purchaser.

2.5 GENERAL WARRANTY

2.5.1 The stores supplied by the contractor under the contract shall be of best quality and workmanship. The contractor shall supply the stores in accordance with the contract specifications unless any deviation has been expressly specified in the contract and any amendments agreed thereto.

2.5.2 The contractor's offer to supply stores in accordance with the tender specifications shall be deemed to be in admission on his part that he has fully acquainted himself with the details thereof and no claim shall lie against the Purchaser on the ground that the contractor did not examine or acquaint himself fully with the tender specifications.

2.6 ALTERATIONS

2.6.1 The Purchaser may, from time to time, make changes in the drawings specifications and issue additional instructions without altering the purchase order in any manner provided that no changes shall have been ordered which materially alter the character and scope of the supply under the contract.

2.6.2 It shall be lawful for the parties to the contract to alter by mutual consent at any time and from time to time the drawings and specifications and as from the dates specified by him stores to be supplied shall be in accordance with such altered drawings and specifications provided that if any such alterations involve increase or decrease in the cost of or in the period required for production, a revision of the contract price and/or the period prescribed for delivery shall be made by mutual agreement in respect of the stores to which the alteration applies. In all other respects, the contract shall remain unaltered.

2.7 PACKING

2.7.1 The contract shall pack the stores at his own cost sufficiently and properly for transit by sea/air as the case may be so as to ensure their being free from loss or damage while in transit to the ultimate destination specified in the contract.

2.7.2 Unless otherwise provided in the contract all containers (including packing cases, boxes, tins, drums and wrappings) in which the Stores are supplied by the contractor shall be considered as property of the Purchaser and their cost as having been included in the contract price.

2.8 INSPECTION

2.8.1 The contractor shall be responsible for and perform all inspection and testing required in accordance with the contract/purchase order and specifications included therewith.

2.8.2 The Purchaser may at his option depute his representative for Inspection of the stores to be supplied under the contract or authorize and nominate a Quality Surveillance Agency of his choice for the purpose hereinafter called, in either case, the inspection.

2.8.3 The supplier shall give notice of readiness for inspection to the Inspector (deputed under clause 2.8.2 above) so that the Inspector can be present at the requisite time. In such an event delivery shall not be effected until an authorization or shipping release is obtained from the Purchaser's Inspector.

2.8.4 The contractor shall allow reasonable facility and free access to his work/factory and records to the inspector for the purpose of inspection or for ascertaining the progress of delivery under the contract.

2.9 **MARKING**

2.9.1 Each package delivered under the contract shall be marked by the contractor at his own expense on three sides of the package and such markings shall be distinct and shall clearly indicate the description and quantity of stores, name and address of the consignee, gross and net weight of the package, name of the contractor, ultimate destination, port of discharge etc.

The marking shall generally be as under

Name and address of the consignee	Purchase Officer, Institute for Plasma Research, Nr. Indira Bridge Bhat, Gandhinagar-382428 Gujarat, India.
Contract Number and Date	No. _____ Date _____
Brief Description of Goods	
Weight	
Dimension	
Ultimate Destination	
Port of Discharge	
Package Number	

2.9.2 Each package shall contain a packing note specifying the name and address of the contractor, the number and date of the contract/purchase order, name and address of the consignee, description of the stores and the quantity contained in such package.

2.9.3 The inspector, wherever deputed by Purchase under clause 2.8.2 may reject the stores of the stores are not packed and/or Marked as aforesaid and in case where the packing materials are specifically prescribed, if such materials are not in accordance with the terms of the contract.

2.10 **TIME FOR AND DATE OF DELIVERY – THE ESSENCE OF CONTRACT.**

2.10.1 The time for and date of delivery of the stores stipulated in the contract shall be deemed to be of the essence of the contract and delivery must be completed not later than date/dates stipulated.

2.10.2 **EXTENSION OF DELIVERY SCHEDULE / LIQUIDATED DAMAGES**

2.10.2.1 If any delay in delivery shall have arisen from any cause such as strike, lockouts, fire, accidents, riot or the like which the purchaser may admit as reasonable ground for grant of extension of delivery schedule, the purchaser will allow such additional period for the purpose as he may consider necessary taking the circumstances into consideration.

2.10.2.2 If the contractor fails to deliver the stores or any instalment or part thereof within the period fixed for such delivery or such additional period allowed by the purchaser in accordance with foregoing para or any time before the expiry of such period repudiates the contract, the Director, IPR may without prejudice to the rights of the purchaser.

2.10.2.2.1 To recover from the contractors as agreed liquidated damages and not by way of penalty a sum equivalent to 2% (two percent) of the price of any stores which the contractor has failed to deliver within the period fixed for delivery in the contract or such additional period as mentioned in para 2.10.2.1 for each month or part of the month during which the delivery of such stores, may be in arrears where delivery thereof is accepted after expiry of the aforesaid period. (For the purpose of computing the damages for delayed supplies under the clause, the cost of the entire plant/machinery/equipment/instrument will be taken into consideration if the plant/machinery/equipment/instrument cannot be put to the intended use for want of delayed portion of supply). OR

2.10.2.2.1.1 To recover from the Contractor, at the sole discretion of the Purchaser, token liquidated damages up to 10% of the normal liquidated damages may be imposed.

2.10.2.2.1.2 **Conditions under which Liquidated Damages will be levied are** as under:

CONDITION	LEVY OF LIQUIDATED DAMAGES
i) Delay in supplies resulted in monetary loss actual/demonstrable and supplier was fully responsible for the delay	Full Liquidated Damages will be levied as specified.
ii) Delay in supplies resulted in monetary loss actual/demonstrable but the supplier was responsible only for part of the delay and remaining part of the delay was beyond their control and attributable to the purchaser.	Full Liquidated Damages will be levied as specified for which supplier is responsible.
iii) Delay in supplies resulted in monetary loss actual/demonstrable and entire delay was due to circumstances beyond their control and fully attributable to the Purchaser	Liquidated Damages may be waived in full.
iv) Delay in supplies. However, monetary loss actual/ demonstrable cannot be certified	Token Liquidated Damages equal of 10% of full Liquidated Damages will be levied.

2.10.2.2.2 Purchase or authorise the purchase elsewhere without notice to the contractor, on the account and at the risk of the contractor of the stores not so delivered or others of a similar description (where stores exactly complying with the contract specification are not in the opinion of the Director, IPR whose opinion shall be final, readily procurable) without cancelling the contract in respect of the portion instrument not yet due of delivery. OR

2.10.2.2.3 Cancel the contract or portion thereof and if so desired purchase or authorise purchase of the stores not so delivered or others of a similar description (where stores exactly complying with the contract specification are not in the opinion of the Director, IPR whose opinion shall be final, readily procurable) at the risk and cost of the contractor, if the contractor had defaulted in the performance of the original contract, the purchaser shall have the right to ignore his offer in response to risk purchase enquiry even though the lowest.

2.10.3 Where action is taken under sub-clause 2.10.2.2.2 or sub-clause 2.10.2.2.3 above the contractor shall be liable for any loss which the purchaser may sustain on that account provided the purchaser or, if there is an agreement to purchase such agreement is made, in case of failure to deliver the stores within the period fixed for such delivery within six months from the date of such failure and in case of repudiation of the contract before the expiry of the aforesaid period of delivery, shall not be entitled to any gain on such purchase and the manner and method of such purchase shall be in the entire discretion of the Director, IPR. It shall not be necessary for the purchaser to serve a notice of such purchase on the contractor.

2.10.4 **Extension of time:** As soon as it is apparent that contract dates cannot be adhered to an application shall be sent by the contractor to the Purchaser. If failure, on the part of the Contractor to deliver the stores in proper time shall have arisen from any causes which the Purchaser may admit as reasonable ground for an extension of time (and his decision shall be final) he may allow such additional time as he considers it to be justified by circumstances of the case without prejudice to the Purchaser's rights to cover liquidated damages under clause 2.21.2 hereof

2.10.5 However, if the contractor fails to apply and secure extension of contract delivery dates before effecting the delivery of the supplies against the contract, acceptance of such stores by the Purchaser will in no way prejudice the rights of the Purchaser to levy the liquidated damages for delayed deliveries nor will it entitle the contractor for payment of statutory levies that come into force after the expiry of the contract delivery dates.

2.11 **RECTIFICATION AND REPLACEMENT OF DEFECTIVE STORES**

2.11.1 If the inspector find that the contractor has executed any unsound or imperfect work, the inspector shall notify such defects to the contractor and the contractor on receiving the details of such defects or deficiency, shall at his own expenses, within seven days or otherwise within such time as may be mutually agreed upon as reasonably necessary, proceed to alter, reconstruct or remanufacture the stores to the requisite standard and specifications as called for by the tender specification.

2.12 **INSPECTOR'S AUTHORITY TO CERTIFY PERFORMANCE**

2.12.1 The Inspector, where ever deputed by the Purchaser under Clause 2.8.2 shall have the power:

2.12.1.1 Before any stores or parts thereof submitted for inspection to certify that they cannot be in accordance with the contract owing to the adoption of any unsatisfactory method of manufacture.

2.12.1.2 Reject any stores submitted for inspection or part thereof as not being in accordance within the specification.

2.13 **CONSEQUENCE OF REJECTION**

2.13.1 If on the store being rejected by the inspector or consignee at the destination the contractor fails to make satisfactory supplies within the stipulated period of delivery, the Director, IPR may:

2.13.1.1 Allow the contractor to submit for inspection fresh stores in replacement of those rejected, within specified time, the contractor bearing the cost of freight on such replacement without being entitled to any extra payment on that account. OR

2.13.1.2 purchase or authorise the purchase of quantity of the stores rejected or others of similar description (where stores exactly complying with the contract specification are not in the opinion of the Director, IPR which opinion shall be final, readily available) without notice to the contractor at his risk and cost and without affecting the contractor's liability as regards further supply of stores due under the contract.

2.13.1.3 Cancel the contract and purchase or authorise the purchase of stores or others of a similar description (where stores exactly complying with the contract specification are not in the opinion of the Director, IPR which opinion shall be final, readily available) at the risk and cost of the contractor. In the event of action being taken under sub clause 2.13.1.2 above of this sub-clause, the provision of Clause 2.10.2 shall apply as far as applicable.

2.14 **WARRANTY**

2.14.1 The contractor warrants that stores to be supplied under the contract shall be free from all defects and faults in materials, workmanship and manufacture and shall be of the highest grade and consistent with the established and generally accepted standards for stores of the types under the contract in full conformity with the specifications, drawings or samples, if any and shall if operable, operate properly. This warranty shall expire (except in respect of complaints notified to the contractor prior to such date) twelve months after the date of receipt of the last lot of stores under the contract at the ultimate destination stipulated in the contract.

2.14.2 Should any defect or deficiency in the stores supplied by the contractor under the contract appear to be discovered within 12 months from the date of receipt of the stores in India, the contractor upon notification of such defects or deficiency by Purchaser, shall forthwith take measure to rectify every such defect, deficiency or failure without cost to the Purchaser. If the contractor after such notification shall make default or delay in diligently rectifying all such defects, deficiencies or failure to the satisfaction of the Purchaser, the Purchaser may take recourse to the remedies provided for in clause 2.10.2.2.2 as applicable.

2.15 **PERMIT AND LICENCES**

2.15.1 The contractor shall secure and pay for all licences and permit at his end which he may be required to comply with all laws ordinances and regulations of the public authorities in connection with the performance of his obligations under the contract. The contractor shall be responsible for all damages and shall indemnify and save the purchaser harmless from against all claims for damages and liability which may arise out of the failure of the contractors to secure and pay for any such licences and permits or to comply fully which any and all applicable laws ordinances and regulations.

2.16 **PETENT INDEMNIFICATION**

2.16.1 The Contractor shall indemnify and keep indemnified the Purchaser from and against any and all claims, actions, costs, charges and expenses arising from or for infringement of patent rights, copy right or other protected rights, of any design plans, diagrams, drawings in respect of the stores supplied by the contractors or any of the manufacturing methods or process adopted by contractor for the stores supplied under the contract.

2.16.2 In the event of any claim being made or action being taken against the purchaser in respect of the matter referred to clause 2.16.1 above, the contractor shall promptly be notified thereof and he shall at his own expense, conduct all negotiations for the settlement of the same and any litigation that may arise therefrom.

2.16.3 In the event of any designs, drawing, plans or diagrams or any manufacturing methods or process furnished by the contractor constituting infringement of patent or any other protected rights and use thereof is restrained, the contractor shall procure for Purchaser, at not cost to the letter, the rights to continue using the same or to the extend it is possible to replace the same so as to avoid such infringement and subject to approval by the Purchaser or modify them so that they become noninfringing, but such modifications shall otherwise be to the entire satisfaction of the Purchaser.

2.16.4 The provision of the clause remain effective and binding upon the Contractor even after the completion, expiration or termination of the contract.

2.17 **MODE AND TERMS OF PAYMENT**

2.17.1 Unless otherwise specified in the contract, payment in full (excluding the amount of the commission included in the price payable directly by the Purchaser to the Indian Agent) shall be made within thierty (30) days from the date of presentation of the following documents to the Purchaser's Bank specified in each contract:

- a. Negotiable Bill of Lading or Airway Bill as the case may be evidencing shipment
- b. Invoice for the shipment : Four Copies
- c. Packing List : Four copies
- d. Certificate of country of origin : Two copies
- e. Shipping release from Inspector or Quality Surveillance Agency nominated by the Purchaser for the purpose of inspection: Four copies
- f. Certificate of Quality including work test certificates of Chemical Analysis where applicable: Two copies
- g. Shipping authorization from purchaser wherever required.
- h. Bank Guarantee for the 10 percent of the value of contract in respect of

plant/machinery/equipment/instrument towards performance bond as provided for in Clause 2.22.8 of Section II

An advance copy of invoice along with details of documents forwarded through bank should be sent to the Paying Authority mentioned in the Purchase Order to enable him to verify the claim and honour the documents is in order without delay.

2.17.2 The contractor shall be responsible to make available to the purchaser the documents which are essential for arranging customs clearance in India. The contractor shall arrange through his bank to have the documents air mailed to the Purchaser's bank without any delay. He shall also arrange to forward directly to the Purchase Officer, IPR, three copies of non-negotiable Bill of lading or Airway Bill as the case may be, along with a copy of the invoice and packing list. If the purchaser incurs any extra expenditure by way of penalty payable to the Port Trust authorities in India or any other such expenditure due to delay in receipt of shipping documents specified by him, the contractor shall be responsible for making good such extra expenditure incurred by the Purchaser.

2.17.3 BANK CHARGES

2.17.3.1 While the Purchaser shall bear the bank charges payable to his Bankers in India (State Bank of India, Ahmedabad) the Contractor shall bear all the bank charges payable outside India including the charges towards advising/amendments commission.

2.17.4 AGENCY COMMISSION

2.17.4.1 The amount of commission included in the price and payable to the Indian Agents of the Contractor shall be paid directly to the Indian Agents by the Purchaser in equivalent Indian Rupees on the basis of an Invoice from the Indian Agent. "Payment will be released to the Indian Agents after receipt and final acceptance of the goods by the Purchaser and the exchange rate will be the one based on which payment is made to the Contractor".

2.17.4.2 The contractor shall send invoice only for the net amount payable to him after deducting the amount of agency commission included in the invoice which would be paid to the Indian Agents directly by the Purchaser. However the contractor's invoice should separately reflect the amount of commission payable to his Indian Agent.

2.18 INSURANCE

2.18.1 Transit insurance from warehouse to warehouse shall be arranged by the purchaser through his underwriters unless this responsibility is specifically entrusted to the contractor in any particular case.

2.19 WITH-HOLDING AND LIEN IN RESPECT OF SUMS CLAIMED

2.19.1 Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the contractor, Purchaser shall be entitled to withhold and have a lien to retain to the extent of the such claimed amount, from any sum or sums found payable or which at any time thereafter may become payable to the contractor under the same contract or any other contract with the Purchaser or any person contracting through the Director, IPR pending finalisation of any such claims.

2.19.2 It is an agreed term of the contract that the sum of money or money so withheld or retained under the lien referred to above by the purchaser will be kept withheld or retained as such by the purchaser till the claim arising out of or under the contract is determined by the Arbitrator and that the contractor will have no claim for interest or damage whatsoever on any contract in respect of such with-holding or retention under the lien referred to supra and duly notified as such to the contractor.

2.20 LIEN IN RESPECT OF CLAIMS IN OTHER CONTRACTS

2.20.1 Any sum of money due and payable to the Contractor (including the security deposit returnable to him) under contract may be withheld or retained by way of lien by the Purchaser or any other person or persons contracting through the Director, IPR against any claim of the Purchaser or such other person or persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Purchaser or with other such person or persons.

2.20.2 It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the Purchaser will be kept withheld or retained as such by Purchaser till this claim arising out of in the same contract or any other contract is either mutually settled or determined by the arbitrator, and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money with-held or retained under this clause and duly notified as such to the contractor.

2.21 ARBITRATION

2.21.1 All disputes arising in connection with the present contract shall be finally settled under the Rules of Conciliation and Arbitration of the International Chamber of Commerce by one or more Arbitrators appointed in accordance with the said Rules.

2.21.2 LIQUIDATED DAMAGES

2.21.2.1 As per Standard Terms & conditions, the Purchaser reserves the right to levy the Liquidated Damages, for delay in supply beyond the contractual delivery date at the rate of 2% of the value of the stores the delivery of which is delayed, for each month or part of a month.

SECTION II

In addition to the General Conditions of Contract contained in Section I above the following Special conditions shall apply to contracts for supply of plant/machinery/equipment/manufactured equipment. These special conditions in Section I shall override the letter.

2.22 SPECIAL CONDITIONS OF CONTRACT

2.22.1 RESPONSIBILITY FOR COMPLETENESS

2.22.1.1 All fittings or accessories which may not be specifically mentioned in the tender specifications of the contract but which are necessary, are to be provided by the contractor without extra charge and the plant/machinery/equipment/instruments must be completed in all respect.

2.22.2 FINAL TEST

2.22.2.1 The final tests as to performance and guarantee shall commence within one month of completion of successful installation.

2.22.3 REJECTION OF DEFECTIVE PLANT

2.22.3.1 If the completed plant or any portion thereof before it is finally accepted is found to be defective or fails to fulfil the requirements of the contract, the Purchaser shall give the Contractor notice setting forth with the details of such defects or failure and the contractor shall forthwith rectify the defective plant or alter the same to make comply with the requirement of the contract. Should the contractors fail to do so within a reasonable time the Purchaser may reject and replace at the cost of the Contractor, the whole or any portion of the Plant as the case may be, which is defective or fails to fulfil the requirement of the contract. Such replacement shall be carried out by the Purchaser within a reasonable time and at reasonable price and where reasonably possible to the same specifications and under competitive conditions. The Contractor shall be liable to pay to the Purchaser the extra cost, if any, of such replacement delivered and or erected as provided for in the contract such extra cost being the difference between the price paid by the Purchaser under the provisions above mentioned for such replacement and the contract price for them. Contractor shall refund to Purchaser any sum paid by the Purchaser to the Contractor in respect of such defective plant.

2.22.4 WARRANTY

2.22.4.1 For a period of twelve calendar months after the plant/machinery/equipment/instruments has been put into operation (or a suitable mutually agreed longer period to be reckoned from the date of last major shipment depending upon the nature of the plant/machinery/equipment/instrument) the Contractor shall be responsible for any defects that may develop under conditions provided for the contract and under proper use, arising from the faulty materials, design or workmanship in the plant or from faulty erection of the plant by the Contractor, but otherwise and shall rectify such defects at his own cost when called upon to do so by the Purchaser who shall state in writing such defects.

2.22.4.2 If it becomes necessary for the Contractor to replace or renew any defective portions of the plant for purpose of rectification under this clause, the provisions of this clause shall apply to the portions of the plant so replaced or renewed under the expiration of six months from the date of such replacement or renewal or until the end of the above mentioned period of twelve months whichever may be the later. If any defects not rectified within reasonable time, the purchaser may proceed to get the work done at contractor's risk and expenses but without prejudice to any other rights which the Purchaser may have against the Contractor in respect of such defects.

2.22.4.3 All inspections adjustments, replacements or renewals carried out by the Contractor during the warranty period shall be subject to the same conditions as in the contract.

2.22.5 All contractor shall under that before going out of production of the spare parts he will give adequate advance notice to the Purchaser so that the letter may order his requirement of spares in one lot if he so desires.

2.22.6 The contractor shall further guarantee that if he goes out of production of spare parts, then he will make available blue prints, drawings of spare parts and specifications of material at no cost to the Purchaser, if and when required in connection with the equipment to enable Purchaser to fabricate or procure spare parts from other sources.

2.22.7 The provision of this clause shall remain effective and binding upon the Contractor even after the completion or expiration of the contract and till the plant/machinery/equipment supplied under the contract is in use by the Purchaser.

2.22.8 ERECTION AND COMMISSIONING

2.22.8.1 In all cases where contracts provide for supervision of erection and commissioning or for test at the Purchaser's premises the Purchaser except where otherwise specified, shall provide free of charge, such labour, Materials, fuels, stores, apparatus and instruments as may be required from time to time and as may reasonably be demanded by the contractor to carryout efficiently such supervision of erection and commissioning and for the requisite test. In case of contracts requiring electricity for the completion of erection, commissioning and testing at site, such electricity shall be supplied free to the Contractor.

2.22.8.2 Action by the Purchaser under the clause shall not relieve the contractor of his warranty obligation under the contract.

2.22.9 TRAINING

2.22.7.1 The Contractor shall, if required by the Purchase, provide facilities for the practical training of purchaser's engineering or technical personnel from India and for their active association on the manufacturing process throughout the manufacturing period of the contract/stores, number of such personnel to be mutually agreed upon.

2.22.10 PERFORMANCE BOND

2.22.10 The Contractor shall furnish a performance bond in the form of a bank guarantee as per the specimen at Appendix "A" to this section for an amount equal to ten percent (10%) of the total value of the contract valid till expiration of the warranty period as a security for the satisfactory performance of the plant/machinery/equipment/instrument supplied under the contract.

2.22.11 MODE OF PAYMENT

2.22.11.1 Unless otherwise agreed to in writing between the Purchaser and the Contractor, payment for the delivery of the material will be made as follows.

(1) Through Letter of Credit :-

The Letter of Credit will be established for 80% of FCA/FOB value after receipt of valid export license by the vendor (if required) and will be allowed to draw payment as under:-

80% of the FCA/FOB value will be paid against presentation of clear & unconditional shipping documents together with the shipment clearance letter issued by IPR to the negotiating Bank.

(2) Through Wire Transfer :-

20% of the FCA/FOB value plus Installation & Commissioning (if applicable) will be paid within 30 days after installation and commissioning and completion of satisfactory acceptance tests at IPR site and on submission of the Invoice with Final Acceptance Certificate issued by IPR & alongwith 10% Performance Bank guarantee of the contract value from a first class foreign bank/nationalized/scheduled bank, valid throughout the warranty period and the grace period of 2 months. ***(A format for performance bank guarantee is attached herewith (refer appendix 'A')).***

2.22.11.2 Advance payments other than mentioned above will be loaded with interest @ 12% p.a. upto the delivery period quoted for the purpose of comparison of price amongst the bidders.

Interest for delay in supply beyond the contractual delivery date: Wherever advance payments are sought for by the contractor and admitted in the contract, against Bank Guarantee for equivalent amount, in the event of any delay in supply beyond the contractual delivery date for reasons attributable to the contractor, interest charges @ 12% shall be levied for the period beyond the contractual delivery date, on the amount of balance advance payment to be adjusted.

APPENDIX 'A'
TO
PORTION II, SECTION B SPECIAL CONDITIONS OF CONTRACT
PERFORMANCE BOND
(TO BE EXECUTED BY THE CONTRACTOR'S BANK **On non-judicial stamp paper of
appropriate value**)

Institute for Plasma Research
Nr. Indira Bridge
Bhat, Gandhinagar-382428
Gujarat
INDIA

WEHREAS on or about the _____ day of _____ 200____ M/s. _____ having its registered Office at _____ (hereinafter called 'The Contractor') entered into an Agreement No. _____ dated _____ for manufacture and supply of _____ hereinafter called 'The Contract') with the Director, IPR (hereinafter called 'The Purchaser")

AND WHEREAS under the terms and conditions of the contract final payment amounting to --under the contract is to be made against a performance bond in the form of bank guarantee furnished by the Contactor for a sum _____ of equivalent to 10% (Ten per cent) of the value of the contract towards satisfactory performance of the _____ (hereinafter called the equipment) valid for a period of 12 months from the date of putting into operation of the said equipment or _____ months from the date of receipt of the last lot of consignment whichever is earlier.

NOW We, (bank) inconsideration of the promises and payment of the final/balance amount of _____ under the contract to the contractor hereby agree and undertake to pay on demand and without any demur to the Director, IPR of the contractor a sum not exceeding _____ against any loss or damage that may be suffered by the Purchaser by the reasons of any unsatisfactory performance of the said equipment.

AND we, _____ (Bank) hereby also agree that the decision of the said Director, IPR as to whether the said equipment is giving satisfactory performance or not and as to the amount of loss or damages suffered by the Purchaser on account of unsatisfactory performance of the said equipment shall be final and binding on us.

AND We (bank) hereby further agree that our liability hereunder shall not be discharged by virtue of any agreement between the Purchaser & the Contractor whether with or without knowledge and/or consent or by reason of the Purchaser showing any indulgence or forbearance to the contractor whether as to payment, time performance or any other matter whatsoever relating to the contract which but for this provision would amount to discharge of the surety under the law.

Our guarantee shall remain in force until _____ and unless a claim under the guarantee is lodged with us within six months from the date (i.e. _____), all rights of the Purchaser under the Guarantee shall be forfeited and we shall be relieved and discharged from all our liabilities hereunder.

Our liability under this guarantee shall not be affected by any change in our constitution or the constitution of the contractor.

(Stamp & Signature)
FOR AND ON BEHALF _____ (BANK)
DATED AT _____ THE _____ 200

APPENDIX 'B'

TO
PORTION II, SECTION B SPECIAL CONDITIONS OF CONTRACT
SECURITY DEPOSIT
(TO BE EXECUTED BY THE CONTRACTOR'S BANK - **On non-judicial stamp paper of appropriate value**)

THIS DEED OF GUARANTEE MADE AT _____ this _____ day of _____ between _____ having its registered office at _____ and one of its branches at _____ (hereinafter called "the Bank" which expression shall mean and include the said _____ and its successors and assigns) of the one part AND IPR (INSTITUTE FOR PLASMA RESEARCH) Near Indira Bridge, Bhat, Gandhinagar 382 428, Gujarat, India (hereinafter called "the purchaser" which expression shall mean and include the said INSTITUTE FOR PLASMA RESEARCH, ANDHINAGAR and its successors and assigns) of the other part.

WHEREAS _____ (hereinafter called "the Contractor/Supplier") having its registered office at _____ have entered into a Contract having order/contract value of Rs./USD/Euro _____ (Rupees/USD/Euro _____) with the purchaser being _____ Purchase order/Contract No. _____ Dated _____ for _____ in accordance with the terms, specifications and conditions contained therein.

AND WHEREAS under the terms of the aforesaid order/contract, the contractor/Supplier is to furnish to the Purchaser a Bank guarantee for an amount of Rs./USD/Euro _____ (Rupees/USD/Euro _____) being 10% of the total value of the purchase order/contract by way of security for fulfilment of the Contractual obligations on the part of the Contractor/Supplier thereunder.

AND WHEREAS the Contractor/Supplier has requested the Bank to guarantee the due payment of the aforesaid amount by the contractor/supplier to the purchaser in case the contractor/supplier fails to fulfil any of the aforesaid contractual obligations.

NOW THIS DEED WITNESSES AS FOLLOWS:

1. The Bank hereby agrees unequivocally and unconditionally to pay within 48 hours, on demand, in writing from the purchaser or any officer authorised by it in this behalf and without demur, any amount upto and not exceeding Rs./USD/Euro _____ (Rupees/USD/Euro _____) to the Purchaser on behalf of the Contractor /Supplier.
2. This guarantee is valid and binding upon the Bank till final acceptance of the ordered item/s by the Purchaser and fulfilment of all the contractual obligations to the satisfaction of the Purchaser and shall not be terminable or affected by notice of any change in this constitution of the Bank or of the firm of Contractor or on account of any reason whatsoever.
3. The liability of the Bank hereunder shall not be impaired or discharged by any extension of time or variations or alterations made or conceded or agreed within or without the knowledge or consent of the Bank or by or between the parties to the said Purchase order.
4. The liability of the Bank under this deed is restricted to the sum of Rs./USD/Euro _____ (Rupees/USD/Euro _____) and same shall remain in force till final acceptance of the ordered item/s covered in the Purchase order (two months beyond final acceptance date). In case any further extension of the

present guarantee is required the same shall be granted on receiving instructions in writing there for from the contractor/supplier on whose behalf this guarantee is issued.

5. Unless proceeding for enforcing this guarantee is commenced against the Bank within two months from the expiry of the aforesaid period or such extended period or period as aforesaid all the rights of the Purchaser under this guarantee shall be extinguished and the Bank shall be relieved and discharged from all liabilities hereunder.
6. The neglect or forbearance of the Purchaser in enforcement of any of its rights under the aforesaid purchase order against the contractor/supplier shall in no way relieve the Bank of its liability under this deed.

In witness whereof, we the _____ have executed this.
This the _____ day of _____ 20_____.

Witnesses: (1)

(2)

APPENDIX 'C'

BANK GUARANTEE (ADVANCE PAYMENT)

(TO BE EXECUTED BY THE CONTRACTOR'S BANK - **On non-judicial stamp paper of appropriate value**)

BANK GUARANTEE NO. _____ DATE: _____

1. WHEREAS on or about the _____ day of _____ M/s _____, a company registered under the companies act and having its registered office at _____ (hereinafter referred to as "the Contractor/Supplier") entered into an Agreement/Contract/Purchase Order bearing No. _____ date _____ with IPR (INSTITUTE FOR PLASMA RESEARCH), Near Indira Bridge, Bhat, Gandhinagar 382 428, Gujarat, India (hereinafter referred to as "The Purchaser") for the supply of _____ (hereinafter referred to as "the Equipment").

2. AND WHEREAS under the terms and conditions of the contract an amount of Rs./USD/Euro _____ (Rupees/USD/Euro _____ only) representing _____ percent advance payment out of the contract value of Rs./USD/Euro _____ (Rupees/USD/Euro _____ only) is to be paid by the Purchaser.

3. AND WHEREAS IPR has agreed in pursuance of the said terms and conditions of the contract to make an advance payment of Rs. _____ (Rupees _____ only) to the contractor on the Contractor furnishing a Bank Guarantee in the manner herein contained.

4. NOW WE, _____ (Name and Address of the Bank) in consideration of the Purchaser having agreed to pay to the Contractor an advance payment of Rs./USD/Euro _____ (Rupees/USD/Euro _____ Only) do hereby agree and undertake to indemnify the Purchaser and keep the Purchaser indemnified to the extent of a sum not exceeding the said sum of Rs./USD/Euro _____ (Rupees/ USD/Euro _____ Only) against any damage or loss that may be suffered by the Purchaser by reason of non-fulfillment of any of the terms and conditions of the contract by the Contractor.

5. WE, _____ (Bank) do hereby undertake to pay the amount due and payable under this guarantee without any demur merely on a demand from the Purchaser stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Purchaser by reason of breach by the said Contractor(s) of any of the terms and conditions contained in the said Agreement/Contract/Purchase Order or by reason of the Contractor(s)'s failure to perform the said Agreement/Contract/Purchase Order. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs./USD/Euro _____ (Rupees/ USD/Euro _____ Only).

6. WE, _____ (Bank) undertake to pay to the Purchaser any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) in any suit or proceeding pending before any Court or Tribunal relating thereto our liability under this present guarantee being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the Contractor(s) shall have no claim against us.

7. AND WE, _____ (Bank) hereby further agree that the decision of the said Project Director, IPR as to whether the Contractor has committed breach of any such terms and conditions of the contract or not and as to amount of damage or loss assessed by the said Project Director as damage or loss suffered by the Purchaser/IPR on account of such breach would be final and binding on us.

8. WE _____ (Bank) further agree with the Purchaser that the Purchaser shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement/Contract/Purchase Order or to

extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Purchaser against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement/Contract/Purchase Order and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said Contractor(s) or for any forbearance, act or commission on the part of the Purchaser or any indulgence by the Purchaser to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have the effect of relieving us.

9. THIS GUARANTEE will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

10. OUR GUARANTEE shall remain in force until _____ (two months beyond the contract completion date) and unless a claim under the guarantee is lodged on or before the above date, all rights of Purchaser under the guarantee shall be forfeited and we shall be relieved and discharged from all liabilities thereunder.

In witness whereof, we the _____ have executed this.

Dated the ____ day of _____ 20__.

For _____
(Indicate the name of bank with Postal address, Fax
Number & email address)

Witnesses: (1)

(2)

TECHNICAL SPECIFICATIONS OF STORES AND DRAWINGS.

TECHNICAL SPECIFICATIONS FOR
SUPPLY OF BELLOW SEALED CONTROL AND
BELLOW SEALED ON/OFF VALVES



INSTITUTE FOR PLASMA RESEARCH
GANDHINAGAR, GUJARAT
382428

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1.0 Purpose

The present document defines the technical specification for supply of bellow sealed control valves and ON/OFF valves required for an **Experimental Helium Cooling Loop (EHCL)** which is being set up at IPR, Gandhinagar (India).

EHCL consists of **Main loop and Pressure & Inventory Control System (PICS)**. The main loop operates at 8 MPa pressure, 300-450 C temperature and maximum 0.4 kg/s flow rate. The main function of PICS is to maintain nominal pressure (due to pressure fluctuations) in the main loop and also to provide helium gas during charging/discharging. The material of construction of EHCL piping is SS 316L. Pipe size of main loop and PICS are 2" (80 Sch) and 1" (40 Sch) respectively.

The flow diagram of the main loop and PICS of EHCL is presented in Fig.1 & Fig.2 respectively indicating the location of all the required.

This specification is for the supply of two types of valves for EHCL (Main loop & PICS):

1.1. Control valves: These valves are required to control flow/temperature/pressure as per the experimental requirements in EHCL.

1.2. ON/OFF Valves: These valves are required for flow isolation as per the experimental requirements in EHCL.

2.0 Scope of Supply

The overall scope of supply is listed below:

2.1 Control valves for main loop (4 Nos.)

- 1) VC-001 –It is placed at the bypass line of the TSM and used to control the helium flow as mentioned in Appendix-1.
- 2) VC-002 –It is placed at the bypass line of the electrical heater and used to control the temperature of hot helium coming from recuperator outlet to TSM inlet as per operating cases of TSM mentioned in Appendix-1.
- 3) VC-003 –It is also placed at the bypass line of the electrical heater and used to control the temperature of helium flow to achieve fast cooling of main loop by mixing cold helium directly with hot helium at TSM inlet.
- 4) VC-004 –It is placed at the bypass line of the circulators and used to control the helium flow as mentioned in Appendix-1.

2.2 Control valves for PICS (3 Nos.)

- 1) VC -101 – It is placed at the upstream side of the connecting line from PICS to main loop and used to control the helium pressure.
- 2) VC- 102– It is placed at the upstream side of connecting line from PICS to main loop and used to control the helium pressure.
- 3) VC- 103 – It is placed at the downstream side of connecting line from PICS to main loop and used to control the helium pressure.

2.3 **ON/OFF valves (17 Nos.)** – These valves are used for isolation of helium flow as shown in fig.1 and fig. 2 of Main loop and PICS respectively.

2.4 Spares required as per the categories below should be included in the vendor's quotation:

- 1) Commissioning Spares: Vendor should furnish list of recommended commissioning spares along with the supply of all above mentioned valves for main loop and PICS.
- 2) Operational spares for 2 years of operation.

Note: The operational philosophy of control valves in PICS is explained in Appendix-2.

3.0 Requirements

3.1 Applicable Codes & Standards

The following Standards, Codes and Regulations whichever is applicable in their latest edition including their addenda should form the basis for design, fabrication, inspection, testing and acceptance of equipments.

1) American Society of Mechanical Engineers (ASME)

- A. ASME-B16.10: Face-to-Face and End-to-End Dimensions of Valves
- B. ASME B16.25: Butt Welding Ends
- C. ASME-B16.34: Valves-Flanged, Threaded, and Welding End
- D. ASME VIII: Rules for construction of pressure vessels – Division 2

2) Fluid Control Institute (FCI)

- A. FCI 70.2: Control valve seat leakage classification

3) Instrumentation, Systems, and Automation Society (ISA)

- A. ISA S75.01.01: Flow Equation for sizing control valves
- B. ISA S75.02: Control valve capacity test procedures
- C. ISA-75.08.05: Face-to-Face Dimensions for Butt-weld-End Globe-Style Control valves (ASME Classes 150, 300, 600, 900, 1500, 2500)
- D. ISA S75.11: Inherent flow characteristics and rangeability of control valve
- E. ISA S75.13: Method of Evaluating the Performance of Positioners with Analog Input Signals and Pneumatic output
- F. ISA S75.19: Hydrostatic testing of control valves

4) Manufacturer's Standardization Society (MSS)

- A. MSS-SP-117: Bellow seals for Gate and Globe valves

5) International Electrotechnical Commission (IEC)

- A. IEC 534-8-3: Control valve aerodynamic noise prediction method

Note: If the vendor has capability to supply the items for a set of standards equivalent to that mentioned above, the same shall be indicated in the quotation. The equivalence shall be explained to IPR and subsequently decision shall be taken by IPR for acceptance for use of alternative standards.

3.2 Quality Assurance

The Quality Management System of the Supplier has to be compliant with the ISO 9001 (2008) standard.

General QA requirements:

- a. Supplier to supply draft Quality assurance plan (QAP) along with bid for similar equipment.
- b. Offer equipment for stage/ final inspection as per agreed QAP.
- c. Review of material certification.
- d. Supply of maintenance and operational manuals.

The Supplier should submit the Quality Assurance Plan (to be supplied after acceptance of the Purchase Order) with the following information:

- a. The company Quality Management System,
- b. The provisions complementary to the ISO 9001 (2008) standard that will be taken to satisfy the contractual requirements,

3.3 Technical requirements of Control valves

3.3.1 Process parameters of control valves

The process parameters of control valves for main loop and PICS are listed in Table-1.

Table 1: Process parameters of control valves

S.No.	Valve tag no.	Pipe size, mm	Design temp. ,C	Operating pressure, MPa	Design pressure, MPa	Air fail action
1.	VC-001	50	450	8.0	10.0	Close
2.	VC-002	25	100	8.3	10.0	Close
3.	VC-003	50	100	8.3	10.0	Close
4.	VC-004	50	100	8.3	10.0	Close
5.	VC-101	25	50	10.0	20.0	Close
6.	VC-102	25	50	8.8	20.0	Close
7.	VC-103	25	50	8.4	20.0	Close

3.3.2 Accessories for control valves

a) Electro Pneumatic Positioner or Smart Positioner

- i. Pneumatic Positioner should be installed on Control Valves. Positioner should operate in conjunction with pneumatically operated valves and its pneumatic actuator. Its features should match the requirements of the valves. The positioner should have the flexibility of changing its action from direct to reverse and vice-versa at site. The Positioner should be from reputed brand like Siemens, ABB etc.

- ii. The Positioner should balance the input signal with the valve stem position to obtain accurate positioning action.

c) Position Transmitter

- i. Valve position transmitter should be the part of smart Positioner. The transmitter should directly monitor the valve stem and be of the non-contact type with weather proof housing. Transmitters should be a two-wire type using control system supplied 24V DC to provide an output signal of 4-20 mA corresponding to 0 –100% valve travel.

d) Air Filter Regulator

- i. Instrument air filter regulator of suitable size, range and capacity should be supplied for each pneumatic instrument. Air filter Regulator filter should have 40 micron filter or better.
- ii. Pressure at the inlet of Air Filter Regulator should be 7 bar g. Inlet connection should be ¼”NPT (F).

3.4 Technical requirements of ON/OFF valves

3.4.1 ON/OFF valves

The process parameters of ON/OFF valves for main loop and PICS are listed in Table-2.

Table 2: Process parameters of ON/OFF valves

S.No.	Valve tag no.	Pipe size, mm	Design temp., C	Operating pressure, MPa	Design pressure, MPa	Air fail action
1.	VG -001 & VG - 002	50	450	8.0	10.0	Open
2.	VG -003 & VG - 005	50	200	8.0	10.0	Open
3.	VG -004 & VG - 006	50	100	8.0	10.0	Open
4.	VG -011 & VG - 012	25	50	16.0	20.0	Close
5.	VG -101 & VG - 106	25	50	16.0	20.0	Close
6.	VG -102 & VG- 104	25	50	16.0	20.0	Close
7.	VG -103 & VG - 105	25	50	16.0	20.0	Close
8.	VG -107	25	50	16.0	20.0	Close
9.	VG-108	25	50	16.0	20.0	Close
10.	VG-109	25	50	16.0	20.0	Close

3.4.2 Accessories for ON/OFF valves

a) Solenoid Valve

- i. Electric solenoid valves should be installed on ON/OFF valves along with cable gland between the tubing from the valve positioner to the actuator. The solenoid valve

should be arranged to move the valve to the specified air failure position when it is de-energized. The solenoid valve should be selected to maintain the required shutoff operating speed.

- ii. Solenoid valve should be of SS 316 body with SS316 trim, as a minimum. Coil Insulation should be of class H suitable for high temperature.
- iii. Cable entry should be ½” NPT (F) with PVC hood at the external end. Flying leads are not acceptable.

b) Limit Switches

- i. Proximity type Limit switches with mounting bracket(s) should be installed on actuator yoke along with cable gland to indicate open and close position the ON/OFF valves. Switches should be suitable for the electrical area classification.
- ii. Every valve should be provided with a pair of switches for ON/OFF positions. The limit switch should be actuated by valve stem position must be adjustable and should not be affected by the vibration. Each limit switch should have two pairs of change over contacts.

c) Air Filter Regulator

- i. Instrument air filter regulator of suitable size, range and capacity should be supplied for each pneumatic instrument. Air filter Regulator filter should have 40 micron filter or better.
- ii. Pressure at the inlet of Air Filter Regulator should be 7 bar g. Inlet connection should be ¼”NPT (F).

Note:

- a. All required valves mentioned above should be bellow sealed and pneumatically operated.
- b. Minimum duty cycle for each valve should be 10000 cycles.
- c. All valves to have top mounted hand-wheels. The neutral position should be clearly indicated on hand-wheel.
- d. All valves can be oriented in vertical, horizontal or angle position.
- e. All instruments, instrument accessories and enclosures should be suitable with respect to maximum temperature of 50 C for indoor applications.
- f. Instrument and Instrument item enclosures should have Ingress Protection (IP) codes as per IEC 60529: Degrees of protection unless otherwise specified indoor located transmitters should be suitable for code “IP-32”.
- g. The typical pressure drops/differential pressure of control and ON/OFF valves is mentioned in Appendix-3.

3.5 Detailed technical requirements

3.5.1 Valve Body

- 1) All control and ON/OFF valves should be globe, top guided type.
- 2) All control and ON/OFF valves should have butt welded end connections.
- 3) All control and ON/OFF valves body and other pressure retaining components preferably should be one piece forged body.

- 4) Valve body rating should be in accordance with ANSI B16.34. The end connections of the valves should be suitable for butt welding to the corresponding piping of main loop and PICS.
- 5) Material of valve body should be SS 316L for compatibility with piping material of EHCL i.e. SS 316L.
- 6) Face to face dimensions of the control valves should be as per ANSI/ISA-S75.08.03/04/05.
- 7) Seat leakage should be chosen in accordance with process requirements and should conform to ANSI / FCI 70.2. For high temperature service (> 200 C) only metal seated valves should be used.
- 8) Flow direction should be clearly indicated by an arrow either etched directly onto valve body or by means of a raised section on the body.

3.5.2 Trim

- 1) Trim material should be SS 316 minimum or better.
- 2) Trim inherent characteristic should be selected to achieve, as far as feasible, a linear installed characteristic over the minimum to maximum required controllable range.

3.5.3 Bonnet and Packing

- 1) For all control valves, the dynamic seal should be made of welded metallic bellows.
- 2) Valve bonnet should be of similar material to the body and also should be welded to the body.
- 3) Valve packing should be of graphite.

3.5.4 Actuator

- 1) Actuators should be normally single action pneumatic diaphragm operated type. Actuators are to be designed to withstand maximum shutoff differential pressure existing across the valve during operation, as well as to overcome frictional forces.
- 2) Signal failure should exhibit the same characteristics as air supply failure.
- 3) Actuator should be designed with consideration of minimum air supply available as 3.5 bar g, design air supply of 7 bar g (in case of Air filter regulator failure). Sizing of actuators should be solely the responsibility of the vendor. The actuator should be sized to provide sufficient force to position and fully stroke the valve trim against the maximum differential pressure that may be developed under the specified operating conditions with minimum air pressure available.
- 4) Stainless steel tubing and compression fittings (NPT thread) should be used for instrument air connections on the valve up to and including the instrument air filter pressure regulator. The size and MOC of internal tubing of valve should be ½" or ¼" SS 316 with double compression SS fitting of Swagelok type.
- 5) Accessories such as air filter regulators, solenoid valve, limit switch, air lock relay, booster etc. should be properly mounted on the actuators.

3.5.6 Noise

- 1) ISA 75-17 should be used as a basis for predicting the noise levels unless the particular valve style is excluded from this standard.

- 2) The maximum noise level should not exceed 65dBA under any condition.

4.0 Scope of work

The Supplier should perform the following tasks further detailed in 4.1 to 4.4:

4.1 Design

List of design documents to be supplied by vendor

1. Duly filled up data sheets for each valve
2. Detailed general arrangement drawing with overall dimensions and bill of Material
3. Control valve characteristic curve
4. CFD analysis report for control valves

Note: The drawings as well as all calculations performed will be transmitted to IPR for approval. Procurement will be initiated only after approval of the drawings by IPR.

4.2 Procurement and fabrication

List of procurement and fabrication documents to be supplied by vendor

1. Material test certificates
2. WPS and PQR certificates

Note: Fabrication can be initiated only after approval by IPR for the above mentioned documents.

4.3 On-shop tests

All the control and ON/OFF valves should be subjected to vendor's routine shop tests as mentioned in table-3.

Table 3: List of on-shop test for valves

S. No.	Type of tests	Codes & Standards/Methodology	Remarks
1.	Hydrostatic shell test	ASME Sec. VIII Div. I	Pressure test should be performed on each valve body upto 1.5 times the valve design pressure.
2.	Helium leak test across the valve seat (vacuum method)	FCI 70-2	Seat leak test should be performed with helium on each valve seat and the leak rate should be $\leq 10^{-5}$ Pa.m ³ /s.
3.	Helium leak test across the valve body (vacuum method)	ASME V	Leak test should be performed with helium on each valve body and the leak rate should be $\leq 10^{-8}$ Pa.m ³ /s.

4.	Functional Test	As per QAP	Opening/closing of valves and Correct settings of limit switches / positioner and transmitter
5.	Dimensional Check	Approved fabrication drawings	Dimensional and orientation check

List of reports to be supplied by vendor

The following reports have to be submitted to IPR for review and acceptance:

- a. Hydrostatic shell report
- b. Seat leak test report
- c. Valve body leak test report
- d. Functional test report

Note: These tests should be performed by the Supplier under witnessing of IPR representatives nominated by IPR. Invitation for witnessing of the specified tests should be sent to IPR at least 30 working days in advance.

4.4 Packaging and shipping

4.4.1 Each valve should bear tag plate etched to the instrument body with the following details:

- a. Tag number as per data sheet
- b. Vendor's name or trade mark
- c. Vendor's model no. and serial no.
- d. IP class marking as well as hazardous area certification mark where applicable.
- e. Valve body maximum pressure rating (nominal for flange class)
- f. Valve body nominal pipe size and body material
- g. Trim material and size

4.4.1. All openings should be suitably plugged to prevent ingress of any impurities.

4.4.2. All equipment should be duly marked with the tag number at the packing box.

5.0 Deliverables

All the valves should be delivered to:

Purchase Officer
Institute for Plasma Research
Near Indira Bridge, Bhat Village
Gandhinagar, Gujarat- 382428
INDIA

6.0 Final Acceptance

Final acceptance at IPR shall be provided after confirmation of safe delivery and visual examination to ensure that valves preservation indicated by pressure gauge is satisfactory.

Also, helium leak test shall be performed by the vendor in presence of IPR representatives on each valve and the leak rate value shall be $<10^{-8}$ Pa.m³/s. The required instruments and equipment for carrying out leak test will be provided by IPR.

In case of any damage and/or if the preservation is found to be defective the acceptance should consists of additional tests to be performed at IPR in presence of the vendor.

7.0 Warranty

All the required valves shall have warranty for 12 months from the date of acceptance at IPR.

List of figures

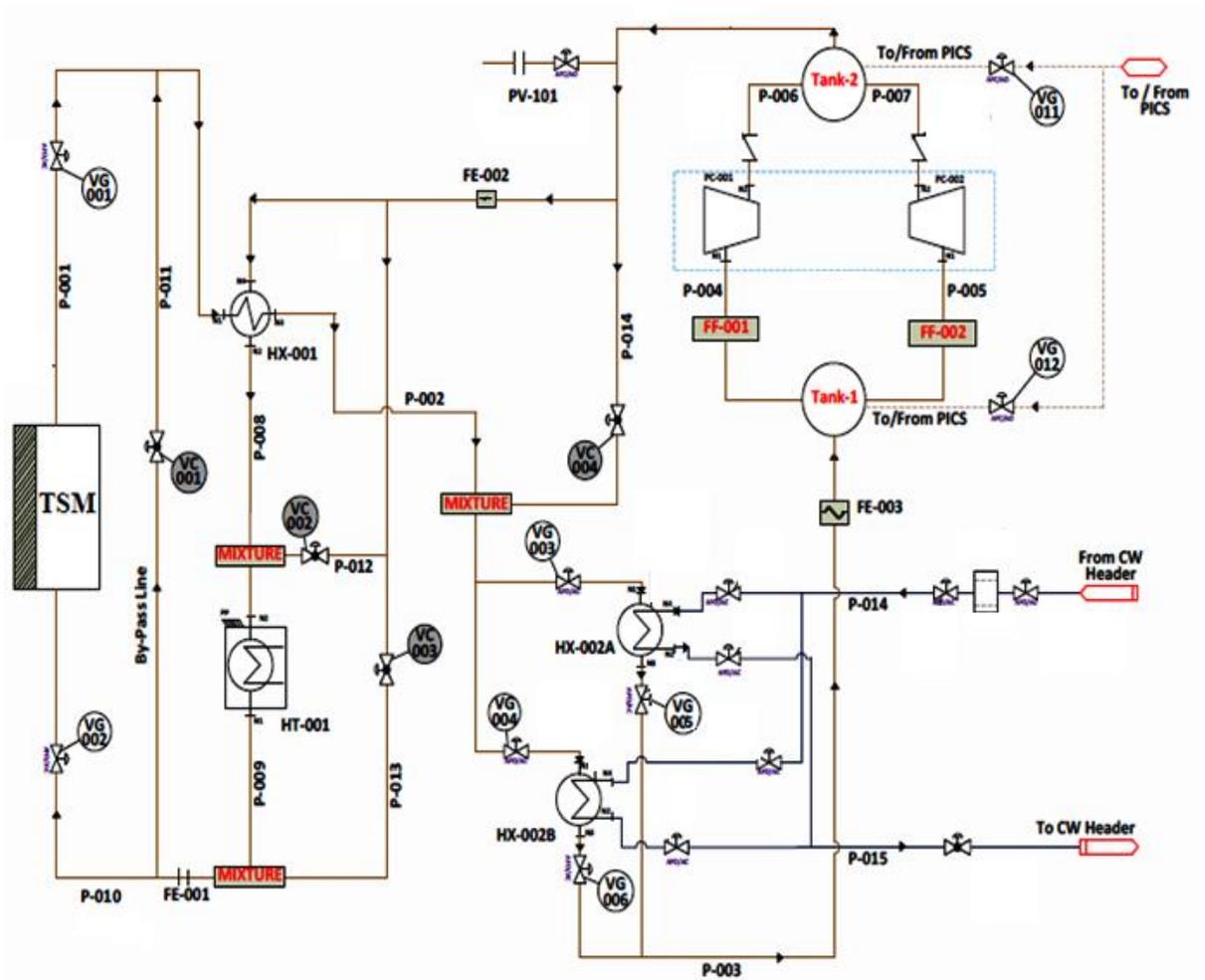


Fig. 1: Flow diagram of main loop of EHCL

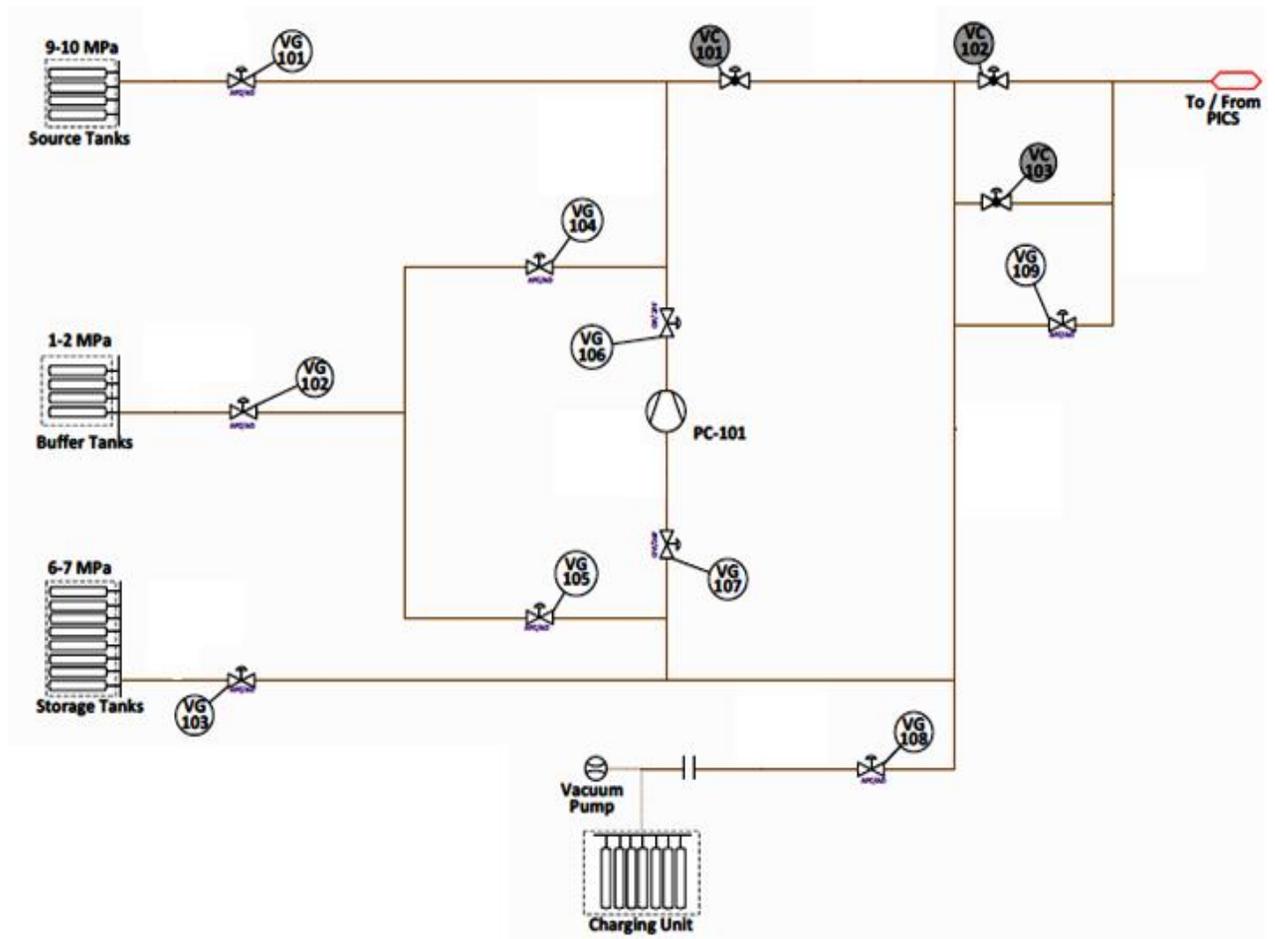


Fig. 2: Flow diagram of PICS of EHCL

Appendix-1

Typical loop operating conditions

Operating conditions of EHCL

1. Operating cases for testing of TSM in EHCL

The different operating cases for testing of TSM is indicated in table-6.

Table 4: Operating cases for TSM

Flow through TSM, kg/s	Operating cases	Heat load on TSM, kW	Inlet temperature to TSM, C
0.4	C1	75	300
	C2	37.5	300
	C3	25	300
	C4	0	300
	C5	0	400
0.3	C1	75	300
	C2	37.5	300
	C3	25	300
	C4	0	300
	C5	0	400
0.2	C1	75	300
	C2	37.5	300
	C3	25	300
	C4	0	300
	C5	0	400

2. Flow regimes of EHCL

The different flow regimes for EHCL are listed below:

- 1) Flow rate 0.4 kg/s with two circulators operating (0.2 kg/s for each circulator).
- 2) Flow rate 0.2 kg/s with one circulator operating.
- 3) Flow rate 0.3 kg/s with two circulators operating and remaining flow bypassed through VC-004 as shown in Fig.1.

Appendix-2

Operational philosophy of control valves in PICS

PICS is used to provide supply and drain helium in case of pressure fluctuations in main loop. The pressure fluctuations expected in the main loop are of the order of 5% of nominal pressure i.e. 8.0 ± 0.4 MPa. The function of control valves of PICS are described below:

- 1) VC-101: As per figure-2, VC-101 senses the helium pressure in source tanks (9-10 MPa) and the minimum helium pressure in the main loop due to pressure fluctuations (7.6 MPa). The function of this control valve is to supply the helium from 10 MPa to 8.8 MPa.
- 2) VC-102: The function of this control valve is to supply the helium from 8.8 MPa to 7.6 MPa to main loop.
- 3) VC-103: As per figure-2, VC-103 senses the helium pressure in buffer tanks (1-2 MPa) and the maximum helium pressure in the main loop due to pressure fluctuations is 8.4 MPa. The function of this control valve is to take the helium from main loop ~ 8.4 MPa to min. of 6 MPa.

Appendix-3

Typical pressure drop and differential pressure across valves

1. Typical pressure drop across control valves w.r.t to different helium flow rates of EHCL are given in Table-4.

Table 5: Expected pressure drop in control valves of EHCL

Valve tag no.	Flow rate	Differential pressure, MPa	Pressure drop, MPa
VC-001	0.4-0.2 kg/s	0.7-1.0	0.15-0.05
VC-002	0.1-0.01 kg/s	0.7-1.0	0.1-0.03
VC-003	0.4-0.2 kg/s	0.7-1.0	0.15-0.05
VC-004	0.4-0.2 kg/s	0.7-1.0	0.4-0.1
VC-101	20 m ³ /hr	1.5	-
VC-102	20 m ³ /hr	3.0	-
VC-103	20 m ³ /hr	3.0	-

2. Typical pressure drop across ON/OFF valves of EHCL are given in Table-5.

Table 6: Expected pressure drop in ON/OFF valves of EHCL

Valve tag no.	Differential pressure, MPa
VG -001 & VG -002	0.7-1.0
VG -003 & VG -005	4.0
VG -004 & VG -006	4.0
VG -011 & VG -012	3.0
VG -101 & VG -106	7.0
VG -102 & VG-104	15.0
VG -103 & VG -105	9.0
VG -107	6.0
VG-108	10.0
VG-109	9.0

FORMAT FOR SUBMISSION OF PART-I (TECHNO-COMMERCIAL) OF THE TENDER.

TENDER FORM

Telephone Nos. : PART-I (TECHNO-COMMERCIAL)
 OF TENDER NO. IPR/TPT/TN/PUR/F/16-17/21
 Last date for receipt 5th April, 2017 @ 13:00 hrs. IST.
 Fax No. : Due date for opening 5th April, 2017 @14:30 Hrs. IST
 E-mail : Tenderer's Offer No. _____ Date _____

FROM

M/s. _____

To
 The Purchase Officer
 Institute for Plasma Research
 Nr. Indira Bridge
 Bhat, Gandhinagar-382428
 Gujarat
 INDIA

Dear Sir,

1. I/We have gone through the tendering conditions pertaining to the Two-Part Tender and General Conditions of Contract and Special Conditions of Contracts contained in Form No. IPR-FP-12. I/we hereby agree to supply the stores conforming to the tender specifications incorporated in Section "C" of the tender documents.
2. You will be at liberty to accept any one or more of the items of stores offered by us and I/we shall be bound to supply you the stores as may be specified in the Purchase Order/Contract.
3. Deviations to Technical specifications contained in Section 'C' of the tender documents are detailed in annexure-A to the tender form while deviations proposed to the General Special Conditions of Contract are detailed in Annexure-B to this tender. Price applicable for the stores are indicated separately in a sealed envelope marked as Part-II (Price) of the tender.
4. I/We are also enclosing herewith all the leaflets catalogue etc. pertaining to the stores offered.

Encl:

Yours faithfully

Stamp and Signature of the Tenderer

FORMAT FOR SUBMISSION OF PART-II – PRICE BID (PRICE ALONE) OF THE TENDER.

PRICE BID FORMAT

(Bidders are requested to offer their price in the following format)

TENDER NOTICE No. IPR/TPT/TN/PUR/F/16-17/21 DATED 27-01-2017

Purchase of Design, Fabrication, Pre-dispatch Inspection, Factory Acceptance Tests, Supply and Final Acceptance Tests of Bellow Sealed Control Valve and Bellow Sealed ON/OFF Valve at IPR

(specify the currency)

Sr. No	Description	Quantity	Unit cost	Total price
1.	a. Supply of Control valve (VC-001)	1		
	b. Commissioning and operational spares of VC-001 (for 2 years)	Lumpsum		
2.	a. Supply of Control valve (VC-002)	1		
	b. Commissioning and operational spares of VC-002 (for 2 years)	Lumpsum		
3.	a. Supply of Control valve (VC-003)	1		
	b. Commissioning and operational spares of VC-003 (for 2 years)	Lumpsum		
4.	a. Supply of Control valve (VC-004)	1		
	b. Commissioning and operational spares of VC-004 (for 2 years)	Lumpsum		
5.	a. Supply of Control valve (VC-101)	1		
	b. Commissioning and operational spares of VC-101 (for 2 years)	Lumpsum		
6.	a. Supply of Control valve (VC-102)	1		
	b. Commissioning and operational spares of VC-102 (for 2 years)	Lumpsum		
7.	a. Supply of Control valve (VC-103)	1		
	b. Commissioning and operational spares of VC-103 (for 2 years)	Lumpsum		
8.	a. Supply of ON/OFF valve (VG-001)	1		
	b. Commissioning and operational spares of VG-001 (for 2 years)	Lumpsum		
9.	a. Supply of ON/OFF valve (VG-002)	1		
	b. Commissioning and operational spares of VG-002 (for 2 years)	Lumpsum		

10.	a. Supply of ON/OFF valve (VG-003)	1		
	b. Commissioning and operational spares of VG-003 (for 2 years)	Lumpsum		
11.	a. Supply of ON/OFF valve (VG-004)	1		
	b. Commissioning and operational spares of VG-004 (for 2 years)	Lumpsum		
12.	a. Supply of ON/OFF valve (VG-005)	1		
	b. Commissioning and operational spares of VG-005 (for 2 years)	Lumpsum		
13.	a. Supply of ON/OFF valve (VG-006)	1		
	b. Commissioning and operational spares of VG-006 (for 2 years)	Lumpsum		
14.	a. Supply of ON/OFF valve (VG-011)	1		
	b. Commissioning and operational spares of VG-011 (for 2 years)	Lumpsum		
15.	a. Supply of ON/OFF valve (VG-012)	1		
	b. Commissioning and operational spares of VG-012 (for 2 years)	Lumpsum		
16.	a. Supply of ON/OFF valve (VG-101)	1		
	b. Commissioning and operational spares of VG-101 (for 2 years)	Lumpsum		
17.	a. Supply of ON/OFF valve (VG-102)	1		
	b. Commissioning and operational spares of VG-102 (for 2 years)	Lumpsum		
18.	a. Supply of ON/OFF valve (VG-103)	1		
	b. Commissioning and operational spares of VG-103 (for 2 years)	Lumpsum		
19.	a. Supply of ON/OFF valve (VG-104)	1		
	b. Commissioning and operational spares of VG-104 (for 2 years)	Lumpsum		
20.	a. Supply of ON/OFF valve (VG-105)	1		
	b. Commissioning and operational spares of VG-105 (for 2 years)	Lumpsum		
21.	a. Supply of ON/OFF valve (VG-106)	1		
	b. Commissioning and operational spares of VG-106 (for 2 years)	Lumpsum		
22.	a. Supply of ON/OFF valve (VG-107)	1		
	b. Commissioning and operational spares of VG-107 (for 2 years)	Lumpsum		
23.	a. Supply of ON/OFF valve (VG-108)	1		

	b. Commissioning and operational spares of VG-108 (for 2 years)	Lumpsum		
24.	a. Supply of ON/OFF valve (VG-109)	1		
	b. Commissioning and operational spares of VG-109 (for 2 years)	Lumpsum		
Total FOB/FCA named Airport/Seaport/Place Price.....				
4.	Installation and Commissioning Charges (Lumpsum) (if any)	1 Job		
Total Offered / Quoted Price				

	Indicate percentage (Except Freight) <i>(specify the currency)</i>			
	Percentage	Included	Excluded	Not Applicable
Packing and Forwarding				
Excise Duty				
Customs Duty				
Sales Tax / VAT				

Place :

Date :

Signature of Bidder with Seal

TENDER FORM

Telephone Nos. :

Tenderer's Offer No. _____ Date _____
PART-II (PRICE) OF
TENDER NO. IPR/TPT/TN/PUR/F/16-17/21

Fax No. :

E-mail :

FROM

M/s. _____

To

The Purchase Officer
Institute for Plasma Research
Nr. Indira Bridge
Bhat, Gandhinagar-382428
Gujarat
INDIA

Dear Sir,

In response to your invitation and as per your tendering and contracting conditions, the price and other related commercial conditions applicable for the scope of supply contained in Part-I (Techno-Commercial) of our tender are indicated in the format at annexure "A" to this tender.

We hereby agree to abide by your terms and conditions of contract contained in section 'B' of this tender document. Deviations to your contract conditions are brought out separately in Annexure 'B' to this tender.

We hereby agree to keep the price valid for your acceptance for a period of 120 days from the date of actual opening of Part-II (Price) of the tender.

Yours faithfully,

Stamp and Signature of the Tenderer